Turkey in Horizon 2020 Phase II Focused Group Training

H2020 ICT Call topics

24-25 Oct 2019
Limak Ambassadore Hotel
Ankara

Kostas Chrysagis, PhD

- Innovation Programmes Designer & Expert
- Coordinator/main participant of more than 110 Research funded EC projects
- Hon. Visiting Professor at City University London.
- Advisor on EC-funding at Brunel & UK Universities and other EC Institutions since 2003.
- Taught “Innovation & Entrepreneurship” at M.Sc. Level for 5 years.
- Invited speaker /workshop organizer on EC matters and Innovation
- Occasionally since 2004, serves on European Commission advisory groups/evaluations.
- Committee member on the preparation or review of FP programmes in ICT and other areas.

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Agenda - Day 1 – 24/10/2019

Session 1 Understanding the basics behind H2020 ICT calls (Chaired by Nikolaos Floratos)		
08:45-09:15	Registration - Networking	
09:15-10:45	Intro to the **H2020 ICT call** • Welcome Message • Route de Table – Short intro by each participant • Introduction to **H2020 ICT call topics** and how to **read a work-programme call topic** • Detailed **presentation of representative ones** for each collaborative project type (RIA, IA, CSA), (Key words, EC expectations, TRLS required, their challenge, scope, expected impact, type of actions and statistics of success based on previous related calls if applicable)	• TUBITAK representative • All participants • H2020 ICT Trainer/Expert
10:45-11:00	*Coffee/tea Break	
11:00-12:30	• Familiarisation with key documents for preparing successful H2020 ICT proposals (Templates, LoS, GA, CA, EC Policy documents, Impact Assessment Reports, Roadmaps, etc)	• ICT Trainer/Expert • All participants
12:30-13:30	Lunch	

Agenda - Day 1 – 24/10/2019

Session 2 **Engaging with key actors in H2020 ICT (Chaired by Nikolaos Floratos)**		
13:30-15:00	Who are the key actors (EC officers, experts, successful applicants, etc) in H2020 ICT calls and how to engage with them	H2020 ICT Trainer/Expert All participants - Hands-On Practice, Assisted by the trainer
15:00-15:30	*Coffee/tea Break	
Session 3 **How to impress the evaluators (Chaired by Nikolaos Floratos)**		
15:30-17:00	Familiarisation with Evaluation Process and what makes a winning proposal based on examples from ESRs (tips and tricks based on evaluators comments, common mistakes)	H2020 ICT Trainer/Expert

Funded H2020 projects

Finished projects

Session 1

Understanding the basics in H2020 ICT calls

Horizon 2020

the biggest single EU Research & Innovation programme aiming at securing Europe's global competitiveness

H2020 facts

- €75 Billion of funding available over 7+ years
- 191.040 eligible proposals submitted
- 25.357 proposals were retained (awarded)
- Success rate: <12%
- > 26.100 organizations got H2020 funding
- > €45 Billion H2020 EU contribution so far

H2020 Structure

Excellent Science

- European Research Council (ERC)
- Future and Emerging Technologies (FET)
- Marie Sklodowska-Curie Actions (MSCA)
- Research Infrastructures

Industrial Leadership

- Enabling & Industrial Technologies (LEIT) - ICT
- Access to Risk Finance
- Innovation in SMEs – The SME Instrument
- Innovation in SMEs – Eurostars-2; CIP

Societal Challenges

- Health & Wellbeing
- Food Security
- Transport
- Energy
- Climate Action
- Societies
- Security

Widening Participation: Science with and for Society, Mainstreaming of Social Sciences and Humanities (SSH); Mainstreaming of ICT

European Institute of Innovation and Technology (EIT)

EURATOM

Joint Research Centre (JRC)

Main H2020 Types of Action

1. Research & Innovation actions
2. Innovation Actions
3. Coordination & support actions
4. Grants of the European Research Council (ERC) to support frontier research
5. Marie Skłodowska-Curie actions (MSCA)
6. EIC Accelerator
7. Fast Track to Innovation - FTI

RIA - IA

- EU funding rate 100%
- Funding for research projects tackling clearly defined challenges, which can lead to the development of new knowledge or a new technology.

- EU funding rate 70% (except non-profit, still funded 100%)
- Funding is more focused on closer-to-the-market activities (prototyping, testing, demonstrating, piloting, scaling-up etc. if they aim at producing new or improved products or services)

- 70 pages for single stage
- 10 pages for 1st stage

Types of Action to chose from

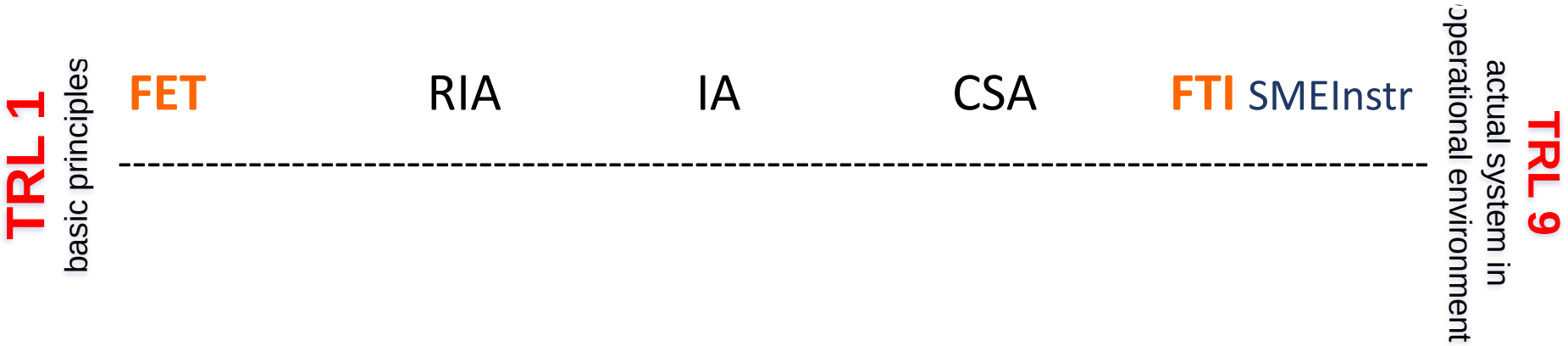
TRL 1 ?

TRL 9

Technology readiness levels (TRL)

- **TRL 1** – basic principles observed
- **TRL 2** – technology concept formulated
- **TRL 3** – experimental proof of concept
- **TRL 4** – technology validated in lab
- **TRL 5** – technology validated in relevant environment *(industrially relevant environment in the case of key enabling technologies)*
- **TRL 6** – technology demonstrated in relevant environment *(industrially relevant env. in the case of key enabling technology)*
- **TRL 7** – system prototype demonstration in operational environment
- **TRL 8** – system complete and qualified
- **TRL 9** – actual system proven in operational environment

Types of Action to chose from



FET OPEN

- Low TRL (< 3)
- 7-8 partners
- EUR 3 million
- **100% funding**
- **15 pages**

2 cut-off dates each year

- 24 January 2019
- 18 September 2019
- **13 May 2020**

FTI

- *3 years after the project start: product to the market*
- TRL: 6 -> 8
- 30 pages
- 3-5 partners [Industry: 60% of the budget or 2/3 or 2/4 or 3/5 partners]
- Funding rate: 70% for profit entities, EUR 3 million

3 cut-off dates each year

- 23 October 2018
- 21 February 2019
- 23 May 2019
- 22 October 2019
- 19 February 2020
- 09 June 2020
- 27 October 2020

Coordination & support actions (CSA)

- EU funding rate 100%
- Accompanying measures such as *standardisation*, *dissemination*, *awareness-raising* and *communication*, *networking*, *coordination* or support services, *policy dialogues* and mutual *learning exercises* and studies
- including design studies of new infrastructures - may also include activities of complementary strategic planning, creation of networks and coordination between programs in different countries..
- 50 pages

Marie Skłodowska-Curie actions (MSCA)

- Marie Skłodowska-Curie Individual Fellowships (MSCA IF)
- European Fellowships
- Global Fellowships
- Marie Skłodowska-Curie Innovative Training Networks (ITN)
- Training Networks
- European Industrial Doctorates

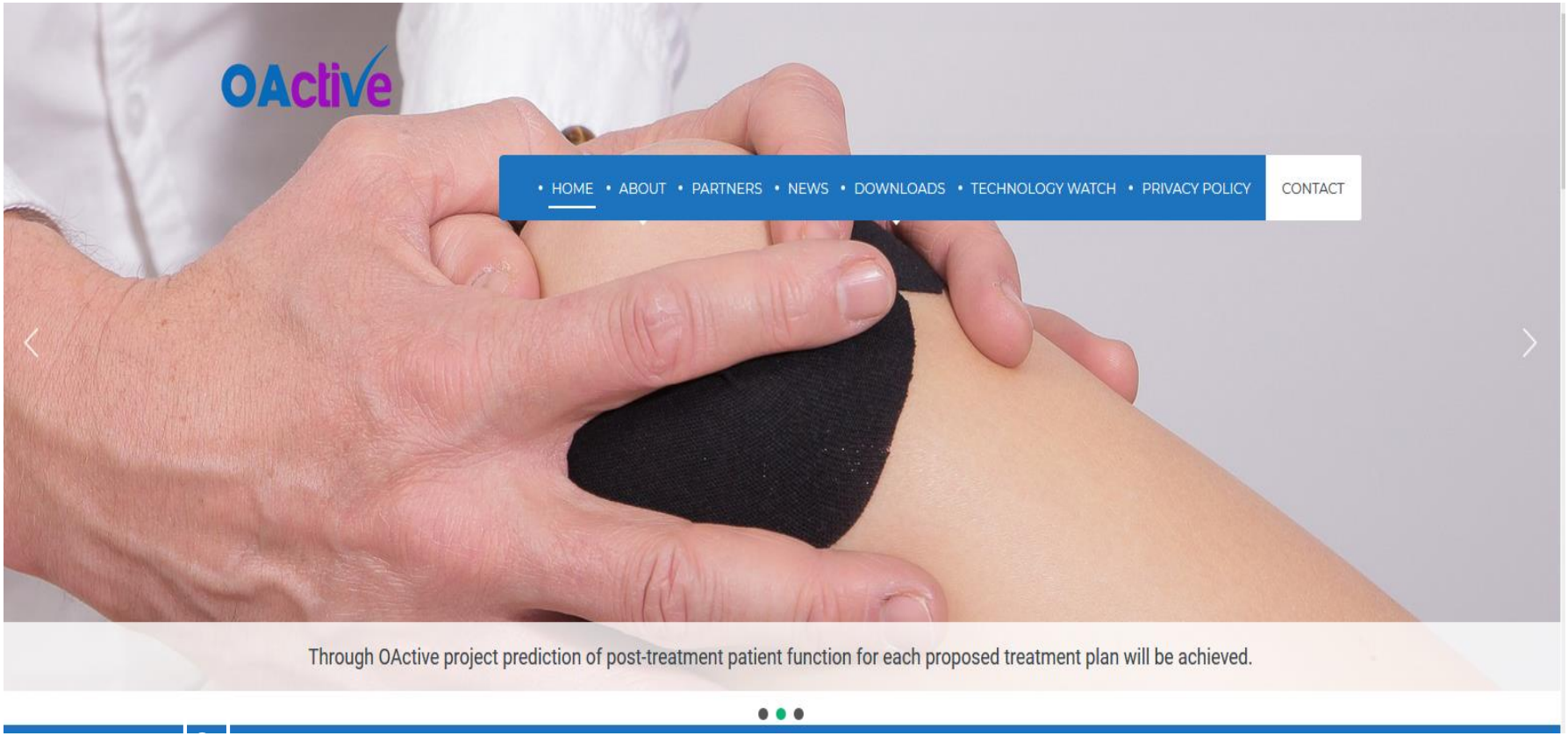
- European Joint Doctorates
- Marie Skłodowska - Curie Research and Innovation Staff Exchange (RISE)
- Co-funding of regional, national and international programmes (COFUND)
- Doctoral programmes
- Fellowship programmes

Funding rates

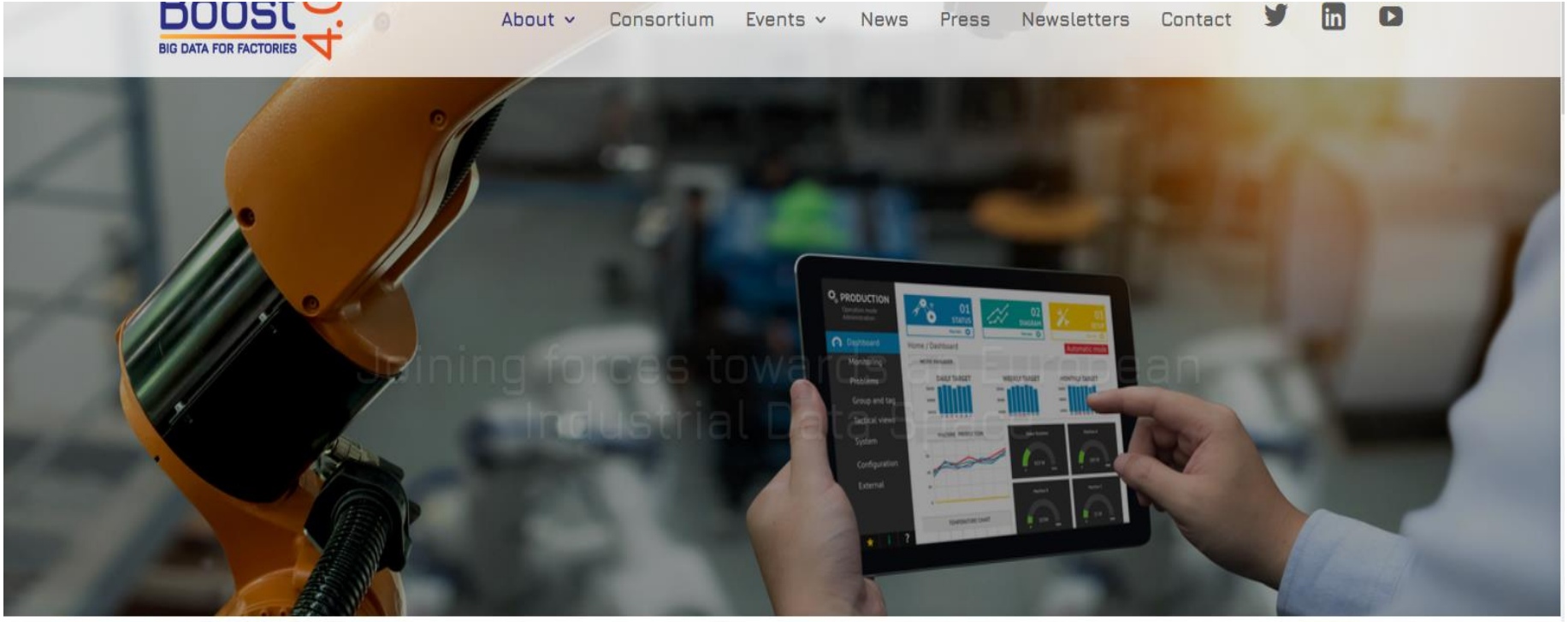
- In Horizon 2020 there is one single funding rate for all beneficiaries and all activities in the research grants.
- EU funding covers up to 100 % of all eligible costs for all Research & Innovation actions.
- For Innovation actions, funding generally covers 70 % of eligible costs, but may increase to 100% for non-profit organisations.
- Indirect eligible costs (e.g. administration, communication and infrastructure costs, office supplies) are reimbursed with a 25 % flat rate of the **direct eligible costs** (those costs directly linked to the action implementation).

Funding rates at a glance

Project type	Direct costs (€)	Indirect costs (€)	Total costs (€)	Funding rate	Grant amount (€)
Research and Innovation Actions (RIA); Coordination and Support Actions (CSA)	100,-	25,-	125,-	100 %	**125,00**
Innovation Actions (IA) – regular rate	100,-	25,-	125,-	70 %	**87,50**
Innovation Actions (IA) – rate for non-profit organisations	100,-	25,-	125,-	100 %	**125,00**



Example of RIA (100%) funded project



Example of an IA (70%) funded project

Beginner’s guide to EU funding

https://ec.europa.eu/info/sites/info/files/beginnersguideeufunding.pdf

How to apply

- Small companies
- NGOs
- Young people
- Researchers
- Farmers
- Public bodies
- Other beneficiaries

Horizon 2020 eligibility

Open to applications from researchers, businesses and other interested organisations located in

- All EU Member States
- **Countries Associated** to **Horizon 2020**
- Organizations from third countries under certain conditions.

Countries associated to H2020

- Iceland
- Norway
- Albania
- Bosnia and Herzegovina
- North Macedonia
- Montenegro
- Serbia
- Turkey
- Israel
- Moldova
- Switzerland
- Faroe Islands
- Ukraine
- Tunisia
- Georgia
- Armenia

Work Programme 2018-2020 ICT

https://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leit-ict_en.pdf

Horizon 2020

Work Programme 2018-2020

5.i. Information and Communication Technologies

IMPORTANT NOTICE ON THIS WORK PROGRAMME

This Work Programme covers 2018, 2019 and 2020. The parts of the Work Programme that relate to 2020 (topics, dates, budget) have, with this revised version, been updated. The changes relating to this revised part are explained on the Funding & Tenders Portal.

(European Commission Decision C(2019)4575 of 2 July 2019)

ICT work programme Activities

Six main activity lines have been identified in the ICT - LEIT part of the Work Programme:

1. A new generation of components and systems
2. Advanced Computing
3. Future Internet
4. Content technologies and information management
5. Robotics
6. Micro- and nano-electronic technologies, Photonics

ICT Technological areas

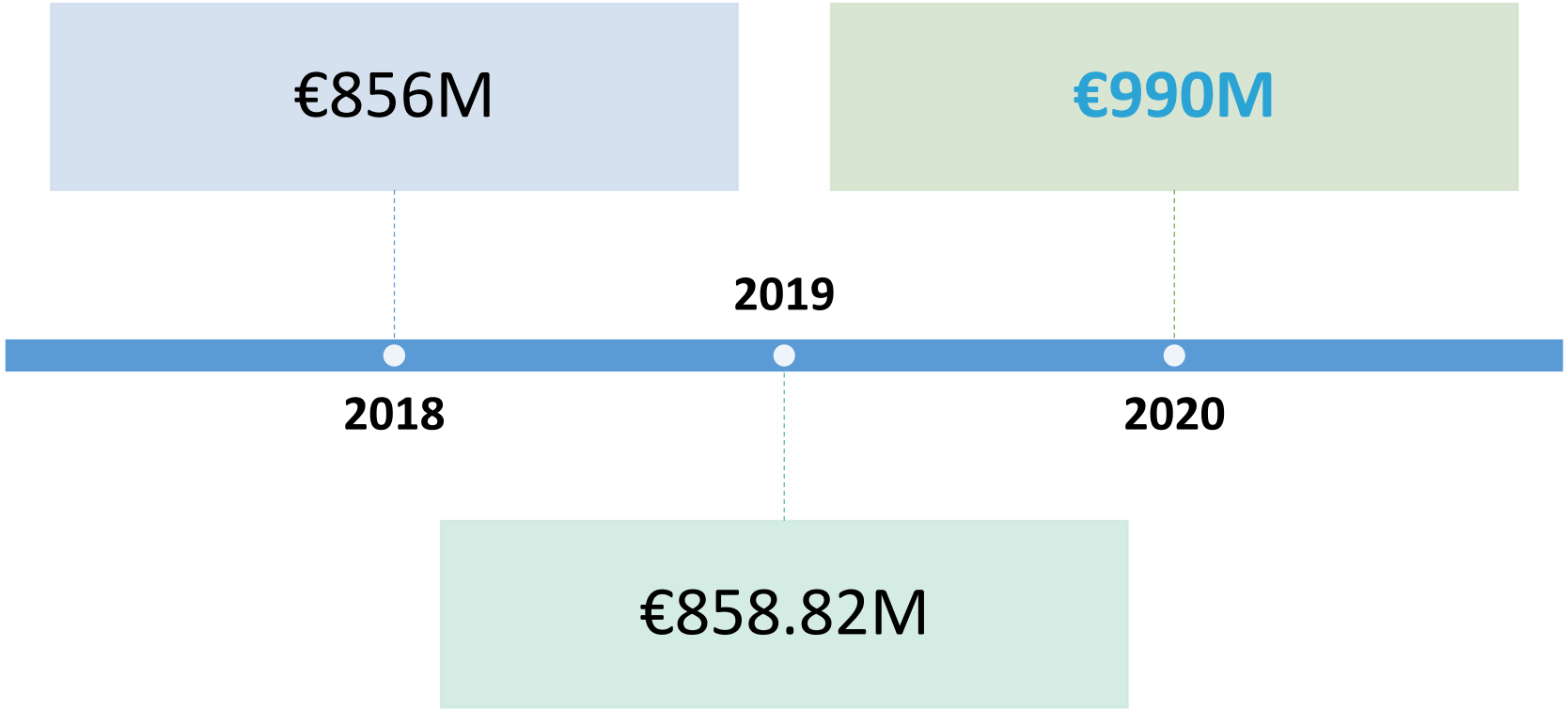
Information & Communication Technologies

Main Topics

- Artificial Intelligence and Technologies for Digitising European Industry and Economy
- European Data Infrastructure: HPC, Big Data and Cloud technologies
- 5G
- Next Generation Internet (NGI)
- International Cooperation activities
- Cross-cutting activities

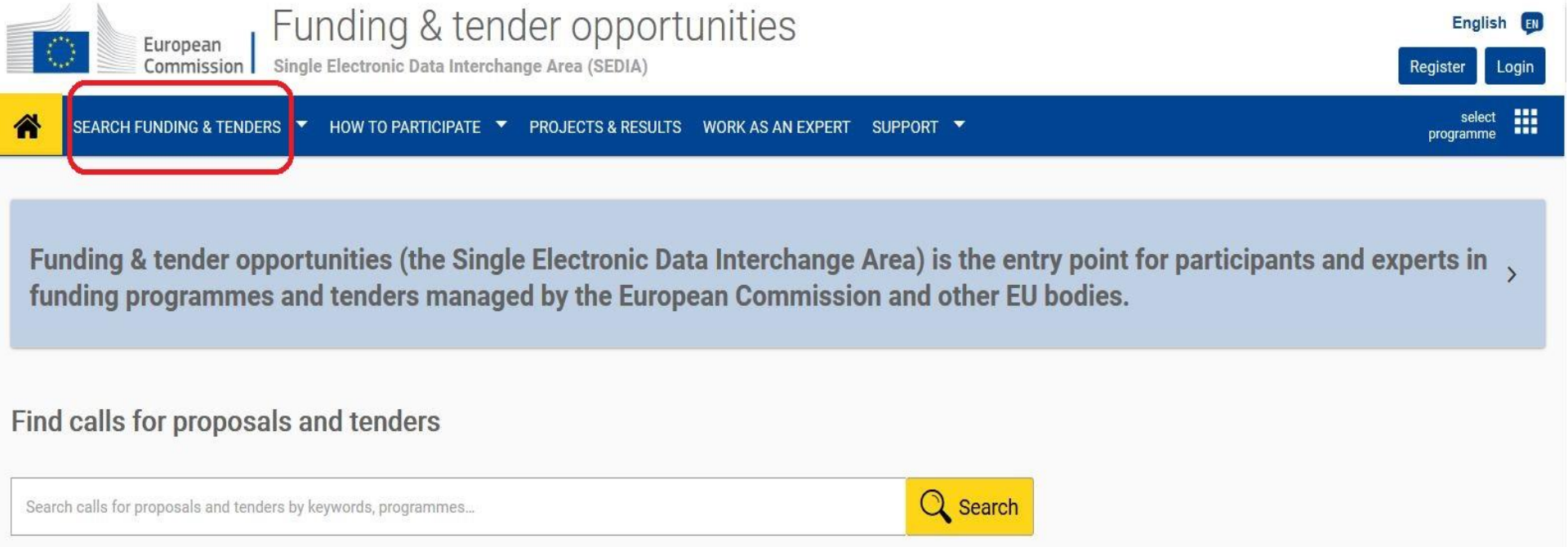
Cross-Cutting

- Contractual public-private partnership
- PPP – 5G
- PPP - Robotics
- PPP - Photonics
- PPP – Factories of the Future
- PPP – Big Data


€856M
€990M
2019
2018
2020
€858.82M

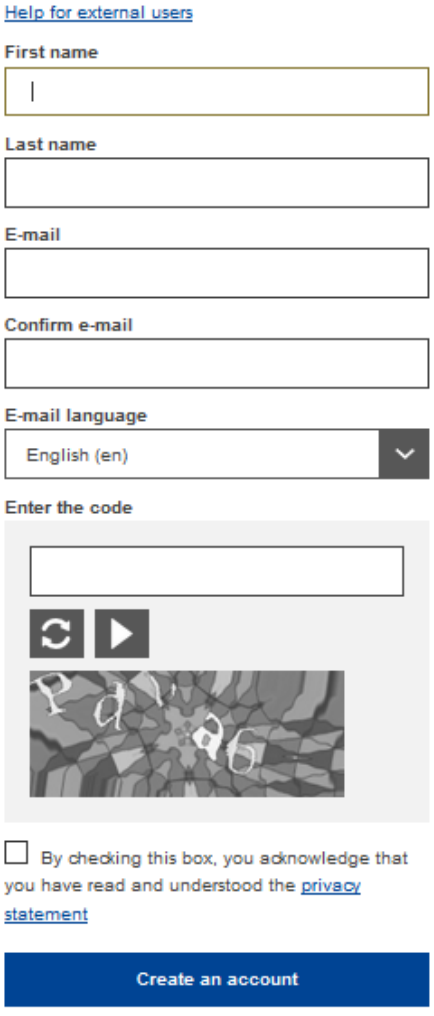
How do I find calls for proposals?

The Funding & Tenders Portal



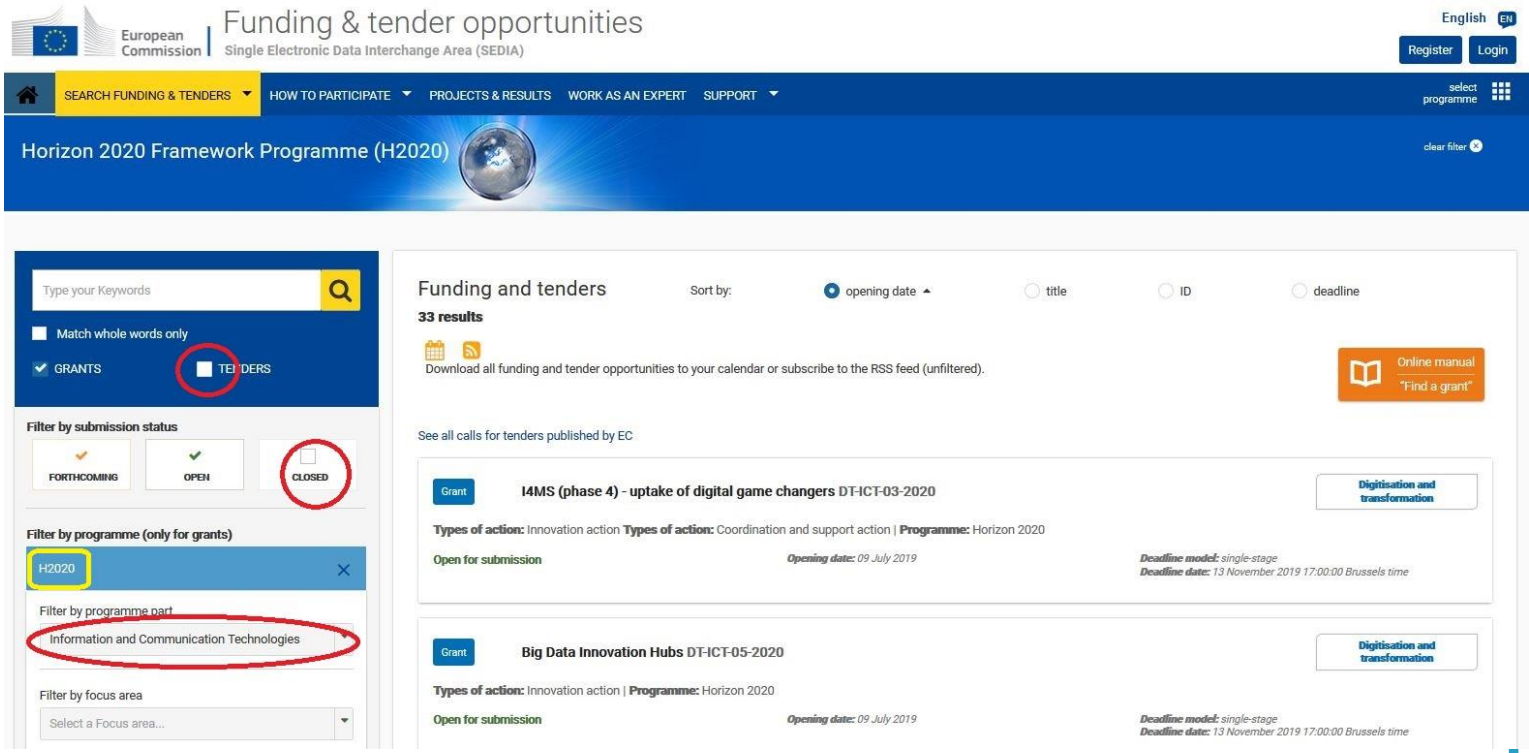
Participant portal

- Create an account !

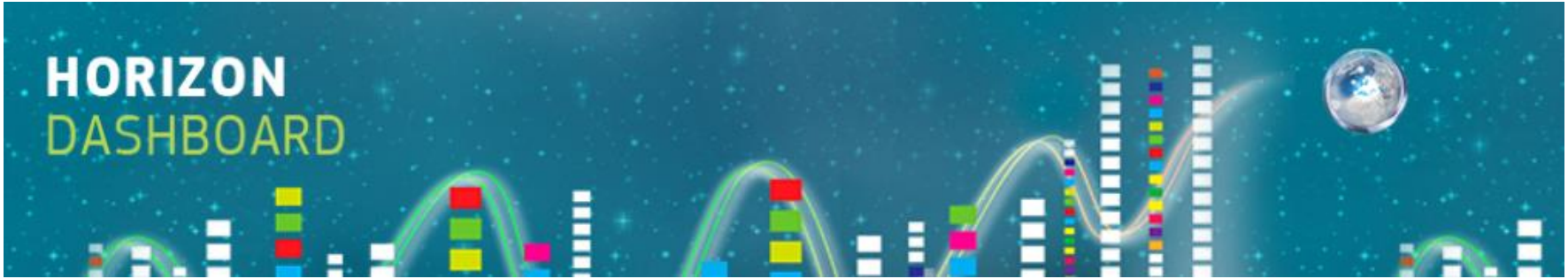


Search funding & tenders

- Unclick tenders
- Unclick closed
- Choose H2020
- Choose ICT



Where I can find H2020 statistics?



H2020 statistics

Summary

Topic | SME | Country | Simplified Type of Action | NUTS1 | NUTS2

Filter Map Level

H2020 Signed Grants
25.357 100,00% of H2020

H2020 Participations
119.999 100,00% of H2020

H2020 EU Contribution
45,88B 100,00% of H2020

Net EU Contribution by country (EUR)

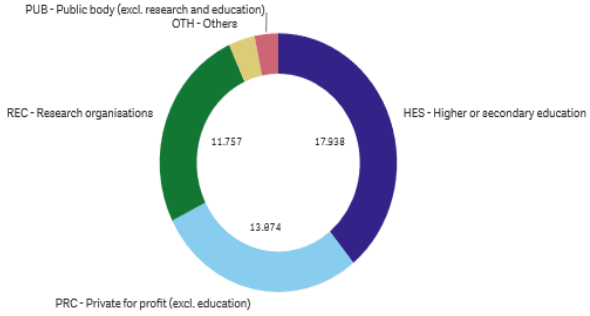
Number of project participations and Net EU Contribution

Legal Name	Country	H2020 Net EU Contribution	H2020 Participations
Totaux		**€ 45.881.993.852**	**119.999**
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	France	€ 818.245.155	1.291
MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN EV	Germany	€ 596.919.635	482
COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	France	€ 512.588.826	542
FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	Germany	€ 474.525.569	800
THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	United Kingdom	€ 381.432.559	523
THE CHANCELLOR MASTERS AND SCHOLARS OF THE UNIVERSITY OF CAMBRIDGE	United Kingdom	€ 352.616.574	548
UNIVERSITY COLLEGE LONDON	United Kingdom	€ 312.224.827	491
EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH	Switzerland	€ 256.933.293	370
ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE	Switzerland	€ 256.213.912	329
KOBENHAVNS UNIVERSITET	Denmark	€ 250.443.559	492

Number of project participations and Net EU Contribution by country - region

Country	H2020 Net EU Contribution	H2020 Participations
Totaux	**€ 45.881.993.852**	**119.999,00**
Germany	€ 7.824.124.887	14.282,00
United Kingdom	€ 5.992.844.696	13.039,00
France	€ 5.089.176.724	11.512,00
Spain	€ 4.111.520.292	12.314,00
Italy	€ 3.794.284.587	11.228,00
Netherlands	€ 3.662.679.449	7.872,00
Belgium	€ 2.243.710.327	5.483,00
Sweden	€ 1.560.183.680	3.553,00
Switzerland	€ 1.414.766.674	3.309,00
Austria	€ 1.281.612.527	3.374,00
Denmark	€ 1.151.044.301	2.712,00
Greece	€ 1.050.075.657	3.405,00
Finland	€ 1.015.011.492	2.332,00

Net EU Contribution by Type of Organisation (Mil EUR)



H2020 ICT statistics

Thematic Priorit... LEIT-ICT | Selections | Insights

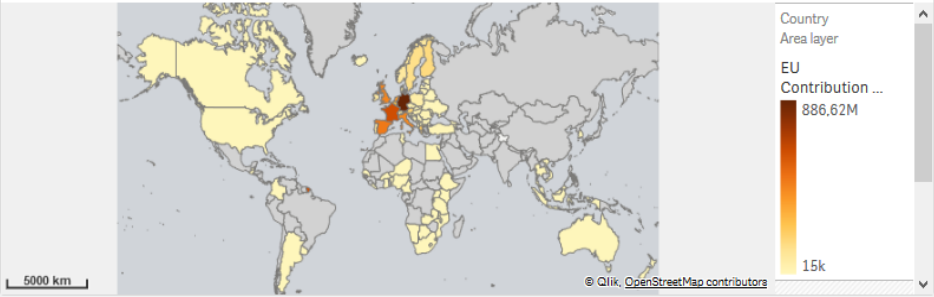
Summary

Topic | SME | Country | Simplified Type of Action | ...

Filter Map Level

H2020 Signed Grants	H2020 Participations	H2020 EU Contribution
1.583 6,24% of H2020	13.486 11,24% of H2020	5,03B 10,96% of H2020

Net EU Contribution by country (EUR)



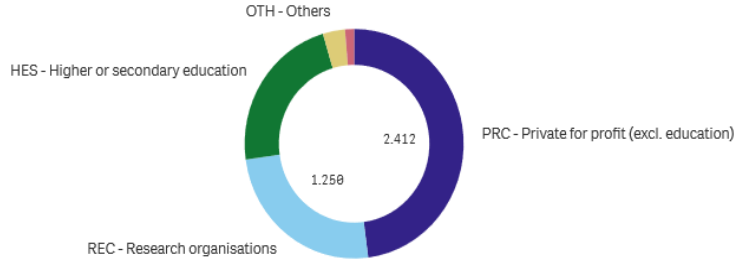
Number of project participations and Net EU Contribution

Legal Name	Country	H2020 Net EU Contribution	H2020 Participations
Totaux		**€ 5.029.841.276**	**13.486**
COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	France	€ 162.664.896	118
FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	Germany	€ 149.373.363	213
INTERUNIVERSITAIR MICRO-ELECTRONICA CENTRUM	Belgium	€ 124.258.541	97
Teknologian tutkimuskeskus VTT Oy	Finland	€ 46.882.460	73
STMICROELECTRONICS SRL	Italy	€ 40.908.198	29
INFINEON TECHNOLOGIES AG	Germany	€ 38.774.183	25

Number of project participations and Net EU Contribution by country - region

Country	H2020 Net EU Contribution	H2020 Participations
Totaux	**€ 5.029.841.276**	**13.486,00**
Germany	€ 886.616.654	1.986,00
France	€ 623.057.507	1.422,00
Spain	€ 477.737.130	1.624,00
United Kingdom	€ 437.986.737	1.087,00
Italy	€ 434.050.754	1.361,00
Netherlands	€ 382.565.734	822,00
Belgium	€ 270.897.583	527,00
Greece	€ 226.712.009	611,00
Austria	€ 167.742.614	475,00

Net EU Contribution by Type of Organisation (Mil EUR)



Top 15 EU participants

Legal Name	Country	Num. Particip.	Net Contrib.
FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	DE	213	€ 149,373,363
COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	FR	118	€ 162,664,896
INTERUNIVERSITAIR MICRO-ELECTRONICA CENTRUM	BE	97	€ 124,258,541
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR	77	€ 20,031,851
ATOS SPAIN SA	ES	76	€ 28,306,185
Teknologian tutkimuskeskus VTT Oy	FI	73	€ 46,882,460
NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK TNO	NL	56	€ 31,751,681
TECHNISCHE UNIVERSITEIT EINDHOVEN	NL	53	€ 27,906,995
CONSIGLIO NAZIONALE DELLE RICERCHE	IT	53	€ 16,482,802
ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS	EL	52	€ 27,095,733
POLITECNICO DI MILANO	IT	49	€ 19,021,010
FUNDACION TECNALIA RESEARCH & INNOVATION	ES	45	€ 16,402,551
INSTITUTE OF COMMUNICATION AND COMPUTER SYSTEMS	EL	44	€ 19,116,011
TELEFONICA INVESTIGACION Y DESARROLLO SA	ES	44	€ 12,852,376
UNIVERSITY COLLEGE CORK - NATIONAL UNIVERSITY OF IRELAND, CORK	IE	38	€ 21,045,875

Top 15 SME participants

Legal Name	Country	City	Num. Particip.	Net Contrib.
Kompetenzzentrum - Das Virtuelle Fahrzeug, Forschungsgesellschaft mbH	AT	GRAZ	21	€ 6,512,384
NEXTWORKS	IT	PISA	20	€ 7,335,103
MARTEL GMBH	CH	DUBENDORF	19	€ 2,234,640
WINGS ICT SOLUTIONS INFORMATION & COMMUNICATION TECHNOLOGIES IKE	EL	NEA SMYRNI	17	€ 8,686,462
TRUST-IT SERVICES LIMITED	UK	ENFIELD	15	€ 4,060,058
TECHNIKON FORSCHUNGS- UND PLANUNGSGESELLSCHAFT MBH	AT	VILLACH	14	€ 4,924,780
ATHENS TECHNOLOGY CENTER ANONYMI BIOMICHANIKI EMPORIKI KAI TECHNIKI ETAIREIA EFARMOGON YPSILIS TECHNOLOGIAS	EL	ATHINA	14	€ 3,854,469
LIONIX INTERNATIONAL BV	NL	ENSCHEDE	13	€ 6,714,231
UNPARALLEL INNOVATION LDA	PT	PORTIMAO	13	€ 3,562,576
B-COM	FR	CESSON SEVIGNE	12	€ 6,341,615
EASY GLOBAL MARKET SAS	FR	VALBONNE	12	€ 3,704,158
F6S NETWORK LIMITED	UK	LONDON	12	€ 2,773,941
INSTITUT MIKROELEKTRONICKYCH APLIKACI S.R.O.	CZ	PRAHA 5 - SMICHOV	12	€ 1,190,450
FUNDINGBOX ACCELERATOR SP ZOO	PL	WARSZAWA	11	€ 21,206,01
INSTITUT FUR RUNDFUNKTECHNIK GMBH	DE	MUNCHEN	11	€ 5,234,777

Top 15 Turkey participants

Legal Name	City	Particip.	Net Contrib.
ARCELIK A.S.	ISTANBUL	5	€ 1,443,188
SRDC YAZILIM ARASTIRMA VE GELISTIRME VE DANISMANLIK TICARET	ANKARA	3	€ 1,485,419
BOGAZICI UNIVERSITESI	ISTANBUL	3	€ 941,750
FORD OTOMOTIV SANAYI AS	ISTANBUL	3	€ 847,313
TURKIYE BILIMSEL VE TEKNOLOJIK ARASTIRMA KURUMU	ANKARA	2	€ 494,421
KOC UNIVERSITY	ISTANBUL	2	€ 439,987
SABANCI UNIVERSITESI	ISTANBUL	2	€ 269,831
AVL ARASTIRMA VE MUHENDISLIK SANAYI VE TICARET LIMITED SIRKETI	GEBZE KOCAELI	2	€ 242,150
HABITUS ARASTIRMA VE DANISMANLIK LIMITED SIRKETI	ISTANBUL	2	€ 67,125
ATOS ORIGIN BILISIM DANISMANLIK VEMUSTERI HIZMETLERI SANAYI	ISTANBUL	2	€ 59,675
ASELSAN ELEKTRONIK SANAYI VE TICARET ANONIM SIRKETI	YENIMAHALLE ANKARA	1	€ 520,625
MIKROSENS ELEKTRONIK SANAYI VE TICARET AS	ANKARA	1	€ 513,875
POLARAN YAZILIM BILISIM DANISMANLIKITHALAT IHRACAAT SANAYI TICARET LIMITED SIRKETI	CANKAYA ANKARA	1	€ 454,750
NETAS TELEKOMUNIKASYON ANONIM SIRKETI	ISTANBUL	1	€ 360,063
SEBIT EGITIM VE BILGI TEKNOLOJILERIANONIM SIRKETI	ANKARA	1	€ 335,983

Top 15 Research Centers

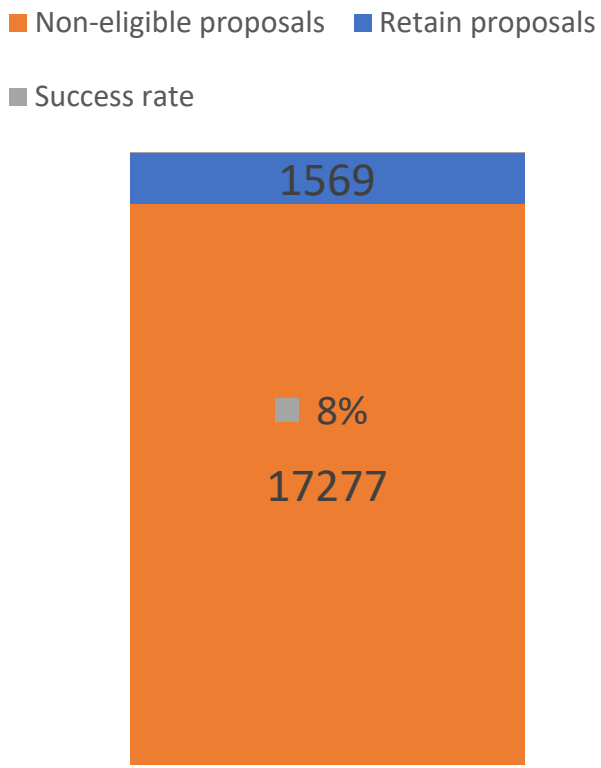
Legal Name	Country	City	Particip.	Contrib.
COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	FR	PARIS 15	118	€ 162,664,896
FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	D	MUNCHEN	213	€ 149,373,363
INTERUNIVERSITAIR MICRO-ELECTRONICA CENTRUM	BE	LEUVEN	97	€ 124,258,541
Teknologian tutkimuskeskus VTT Oy	FI	ESPOO	73	€ 46,882,460
NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK TNO	NL	DEN HAAG	56	€ 31,751,681
ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS	EL	THERMI THESSALONIKI	52	€ 27,095,733
STICHTING WAGENINGEN RESEARCH	NL	WAGENINGEN	7	€ 23,105,623
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	FR	PARIS	77	€ 20,031,851
INSTITUTE OF COMMUNICATION AND COMPUTER SYSTEMS	EL	ATHINA	44	€ 19,116,011
BARCELONA SUPERCOMPUTING CENTER - CENTRO NACIONAL DE SUPERCOMPUTACION	ES	BARCELONA	21	€ 18,146,221
FUNDACION TECNALIA RESEARCH & INNOVATION	ES	DERIO BIZKAIA	45	€ 16,402,551
CONSIGLIO NAZIONALE DELLE RICERCHE	IT	ROMA	53	€ 16,482,802
IDRYMA TECHNOLOGIAS KAI EREVNAS	EL	IRAKLEIO	33	€ 15,134,171
DEUTSCHES FORSCHUNGSZENTRUM FUR KUNSTLICHE INTELLIGENZ GMBH	DE	KAISERSLAUTERN	24	€ 15,129,151
TEKNOLOGISK INSTITUT	DK	TAASTRUP	11	€ 14,345,194

H2020 – ICT Calls (2018 - 2019)

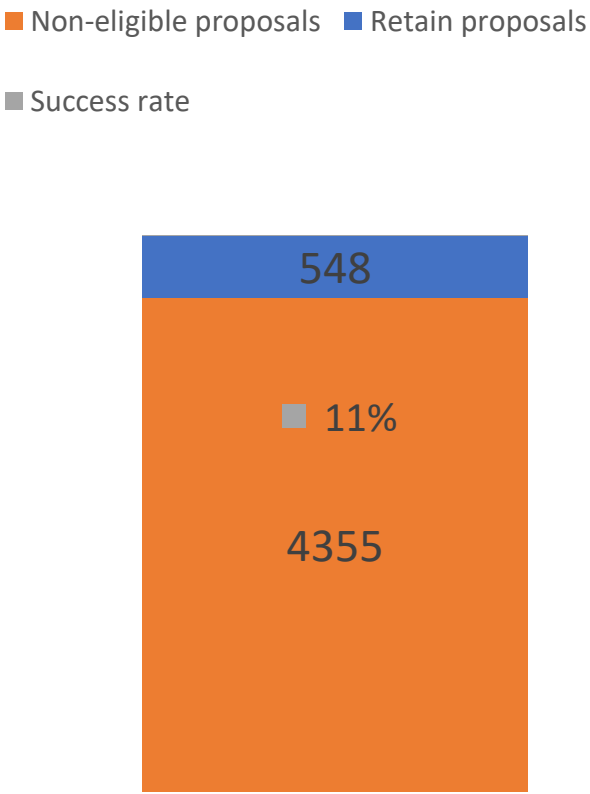
- Signed Grands: 224 (0,88% of H2020)
- EU Contribution: 1,47B (3,20% of H2020)
- Total cost: 2,72B (2,08 of H2020)
- Average participation per project: 15
- Average EU contribution per project: 6,55M
- Average Total cost per project: 12,14M

(Info from EC Dashboard Aug.2019)

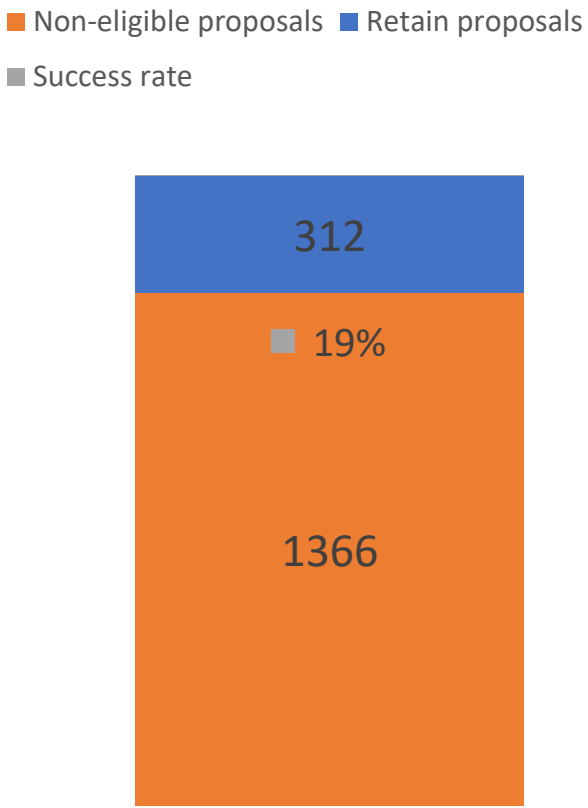
H2020 – ICT Total Success rate (2014 – 2019)



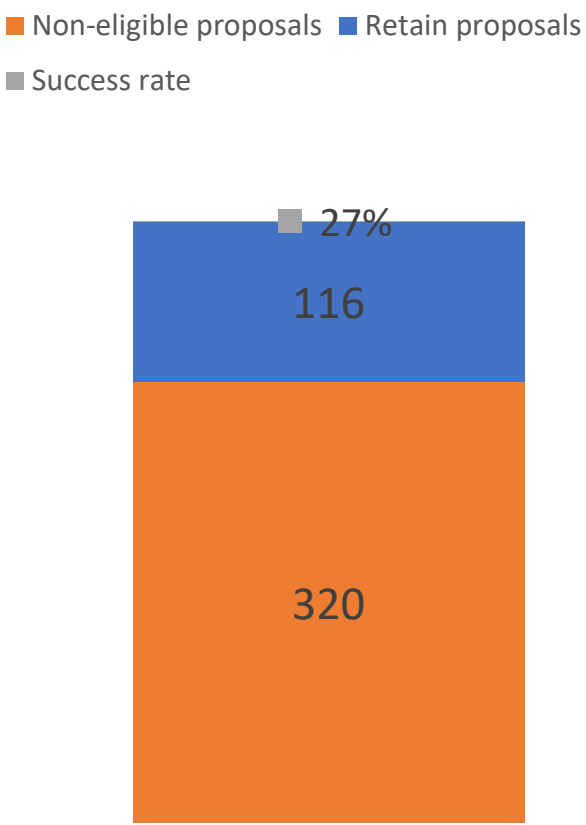
H2020 – ICT RIA Success rate (2014 – 2019)



H2020 – ICT IA Success rate (2014 – 2019)



H2020 – ICT CSA Success rate (2014 – 2019)



Artificial Intelligence and Technologies for Digitising European Industry and Economy

Topic ID	Topic title	Budget (M€)	Type of Action - per Topic (M€)	Deadline
ICT-46-2020	Robotics in Application Areas and Coordination & Support	83	RIA 7, IA 7, CSA 3	22/4/20
ICT-47-2020	Research and Innovation boosting promising robotics applications	20	RIA 3	22/4/20
ICT-48-2020	Towards a vibrant European network of AI excellence centers	50	RIA 12, CSA 2	13/11/19
ICT-49-2020	Artificial Intelligence on demand platform	20	IA 5	22/4/20
ICT-38-2020	Artificial intelligence for manufacturing	48	RIA 6, CSA 0.5	16/1/20
ICT-36-2020	Disruptive photonics technologies	47.5	RIA 6	22/4/20
ICT-37-2020	Advancing photonics technologies and application driven photonics components and the innovation ecosystem	48	RIA 5, IA 7, CSA 4	22/4/20
ICT-50-2020	Software Technologies	30	RIA 5, CSA 1	16/1/20

European Data Infrastructure: HPC, Big Data and Cloud technologies

Topic ID	Topic title	Budget (M€)	Type of Action - per Topic (M€)	Deadline
ICT-51-2020	Big Data technologies and extreme-scale analytics	31.5	RIA 6, CSA 1.5	16/1/20
ICT-40-2020	Cloud Computing: towards a smart cloud computing continuum	20	RIA 6, CSA 0.6	22/4/20

5G

Topic ID	Topic title	Budget (M€)	Type of Action - per Topic (M€)	Deadline
ICT-52-2020	5G PPP – Smart Connectivity beyond 5G	55	RIA 12	22/4/20
ICT-41-2020	5G PPP – 5G innovations for verticals with third party services	49	IA 6	22/4/20
ICT-42-2020	5G PPP – 5G core technologies innovation	49	IA 6, CSA 1	16/1/20
ICT-53-2020	5G PPP – 5G for Connected and Automated Mobility (CAM)	30	IA 12	13/11/19

Next Generation Internet

Topic ID	Topic title	Budget (M€)	Type of Action - per Topic (M€)	Deadline
ICT-54-2020	Blockchain for the Next Generation Internet	20	RIA 8	16/1/20
ICT-55-2020	Interactive Technologies	17	IA 2	13/11/19
ICT-56-2020	Next Generation Internet of Things	48.5	RIA 8, CSA 2	16/1/20
ICT-57-2020	An empowering, inclusive Next Generation Internet	7	RIA 3	22/4/20
ICT-44-2020	Next Generation Media	17.5	IA 5.5, CSA 2	16/1/20

Special topics

Topic ID	Topic title	Budget (M€)	Type of Action - per Topic (M€)	Deadline
Cross-cutting activities				
ICT-45-2020	Reinforcing European presence in international ICT standardisation: Standardisation Observatory and Support	4	CSA 4	13/11/19
International Cooperation activities				
ICT-58-2020	International partnership building between European and African	11	IA 2, CSA 4	22/4/20

Digitising and transforming European industry and services: digital innovation hubs and platforms

Topic ID	Topic title	Budget (M€)	Type of Action - per Topic (M€)	Deadline
Support to Hubs				
DT-ICT-03-2020	I4MS (phase 4) - uptake of digital game changers and digital manufacturing platforms	71	IA 8, CSA 1	13/11/19
DT-ICT-04-2020	Photonics Innovation Hubs	19	IA 9.5	22/4/20
DT-ICT-05-2020	Big Data Innovation Hubs	30.5	IA 5 to 12	13/11/19
Platforms and Pilots				
DT-ICT-09-2020	Digital service platforms for rural economies	30	IA 15	22/4/20
DT-ICT-12-2020	The smart hospital of the future	40	IA 10	22/4/20

Artificial intelligence for manufacturing

ID: ICT-38-2020 [1/7]

Specific Challenge:

State-of-the-art AI technologies need to be integrated with advanced manufacturing technologies & systems in order to exploit their potential in manufacturing and process industry. AI systems cooperating with humans can improve production planning and execution, and can help to improve quality of products and processes.

To widely deploy these technologies, specific attention has to be given to *standardisation*, *synchronising EU and Member States activities*, and to *international collaboration*.

Artificial intelligence for manufacturing

ID: ICT-38-2020 [2/7]

Scope:

a) Research and Innovation Actions (RIA)

The focus is on integrating state-of-the-art AI technologies in the manufacturing domain, for example in agile production processes and predictive quality, taking into account the domain-specific requirements in terms of *time criticality*, *safety and security*, finding effective ways for *collaboration between humans and AI systems*, and exploiting the strengths of both humans and machines while *keeping the human in control*. Ethical principles, as expressed by the high-level *expert group on Artificial Intelligence*[1] should be followed and recommendations for instantiation in the manufacturing domain should be developed. Proposers are encouraged to *build on existing results from artificial intelligence research*, for example ICT-26-2018-2020 (*bingo!*).

Artificial intelligence for manufacturing

ID: ICT-38-2020 [3/7]

Proposals must develop innovative concepts and tools that take into account the status and availability of all relevant production resources, learn from past experiences, and deal effectively with unforeseen events. If appropriate, *AI techniques should be combined with digital twins(->? GANs)* and real-life feedback from the shop floor or production facility to improve quality of products and processes. Generative design approaches for products and processes are encouraged.

Developed technologies and solutions should be demonstrated **in at least two** *different realistic manufacturing use cases* of significant economic value. If applicable, *legal obstacles* to implementation of the proposed solutions should be identified.

The Commission considers that proposals requesting a contribution from the EU of between EUR **4 and 6 million** would allow this area to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Artificial intelligence for manufacturing

ID: ICT-38-2020 [4/7]

b) Coordination and Support Actions (CSA)

Standardisation

Proposals are expected to extend, further develop, and support the implementation of a model for the synchronisation of standardisation activities on AI and related digital technologies in manufacturing at large, at the Member State level and at the European level – and in a global context, taking into account legal and ethical issues where relevant. Proposals need to build on previous activities, such as the results of the Joint MSP/DEI Working Group on standardisation in support of Digitising European Industry[2].

Artificial intelligence for manufacturing

ID: ICT-38-2020 [5/7]

Cooperation EU-Japan

Proposals are expected to support possible cooperation with Japan, in areas relevant for AI-driven innovation in manufacturing and digital industrial platforms. Proposals will assess opportunities, and kick-off cooperation activities, by organizing contacts between researchers and companies from EU and Japan working on AI applications for manufacturing, encouraging the exchange of information on the respective research programmes and technological results. Proposals shall foresee twinning with entities participating in projects funded by Japan to exchange knowledge and experience, exploit synergies and develop recommendations for further sustainable cooperation and collaboration activities.

Artificial intelligence for manufacturing

ID: ICT-38-2020 [6/7]

The Commission considers that proposals requesting a contribution from the EU of EUR **0.5 million** would allow these areas to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts. One coordination and support action will be supported for each of the two areas above.

Artificial intelligence for manufacturing

ID: ICT-38-2020 [7/7]

Expected Impact: RIA

Products and services usable in a wide range of manufacturing processes leading to agile production processes and improved quality of products and processes
Humans working together with Artificial Intelligence systems in optimal complementarity.

CSA

Increased *synchronisation* and cooperation on AI and related digital technologies in manufacturing, with higher global impact.
Proposals need to describe how the proposed work will contribute to the impact criteria above, provide metrics, the baseline and targets to measure impact.

Artificial Intelligence on demand platform

ID: ICT-49-2020

Specific Challenge:

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 non-tech industries and *help address societal challenges* (e.g. ageing, transport, gender equality). The ambition is to bring AI technologies and resources to *integrators and innovators in all sectors* and actively engage with a wide user community, to foster adoption of AI, via use-cases experiments.

Artificial Intelligence on demand platform

ID: ICT-49-2020

AI-on-demand platform: consolidation and exploitation

Scope:

This topic builds on the AI-on-demand-platform funded in ICT26-2018-20, a reference access point gathering and providing access to AI-related knowledge, algorithms and tools and access to related infrastructures, equipment, and data resources, offering also experts support to potential users of AI in order to facilitate the integration of AI into applications, making it a compelling solution for users, especially from non-tech sectors. This activity aims at consolidating the eco-system by bringing in a larger user community, especially from the non-tech sector, and by reinforcing the service layer of the platform. At this stage, it will be particularly important to refine mechanisms to ensure the platform's long-term sustainability. The platform should provide a good European coverage, both in terms origin of the resources made available on the platform, but also in terms of users of the platform, making sure its resource is available everywhere in Europe.

Artificial Intelligence on demand platform

ID: ICT-49-2020

The objectives:

Reinforce the service layer of the AI-on-demand-platform funded in ICT26-2018-20 to facilitate the use and uptake of the platform resources.

Reaching out to new user domains and boosting the use of the platform through use cases and small-scale experiments. The task will involve financial support to third parties, in line with the conditions set out in part K of the General Annexes. Minimum EUR 2 million funding should be dedicated to it, with EUR 50.000 to 200.000 per third party (amount higher than EUR 60.000[1] should be justified, based on need of expensive hardware or infrastructure for instance). The selection process should prioritise projects maximising the impact of the platform and demonstrating the benefit of AI in products, processes or services. Particular attention will be paid to SMEs and low-tech sector, which can best benefit from the support offered by the platform. The selected projects should also cover a wide spread of application sectors, to demonstrate the versatility and scalability of the platform offer.

Artificial Intelligence on demand platform
ID: ICT-49-2020

Proposals will ensure continuity with the project selected under ICT26-2018-20, having access to all the knowledge and offer needed to fully exploit it and be able to build on it. The improvements resulting from the selected projects should be made available and open to the community via the platform, to allow full exploitation, and also further developments by entities outside the consortia, building on these results.
The Commission considers that proposals requesting a contribution from the EU of up to EUR 5 million would allow this area to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Artificial Intelligence on demand platform
ID: ICT-49-2020

Expected Impact:

Enriching and optimising the AI on-demand platform service offer and reinforcing its sustainability.

Boosting the deployment of AI-based solutions and services, enabling a larger user community to reap the economic benefits of AI, especially SMEs and non-technology sectors

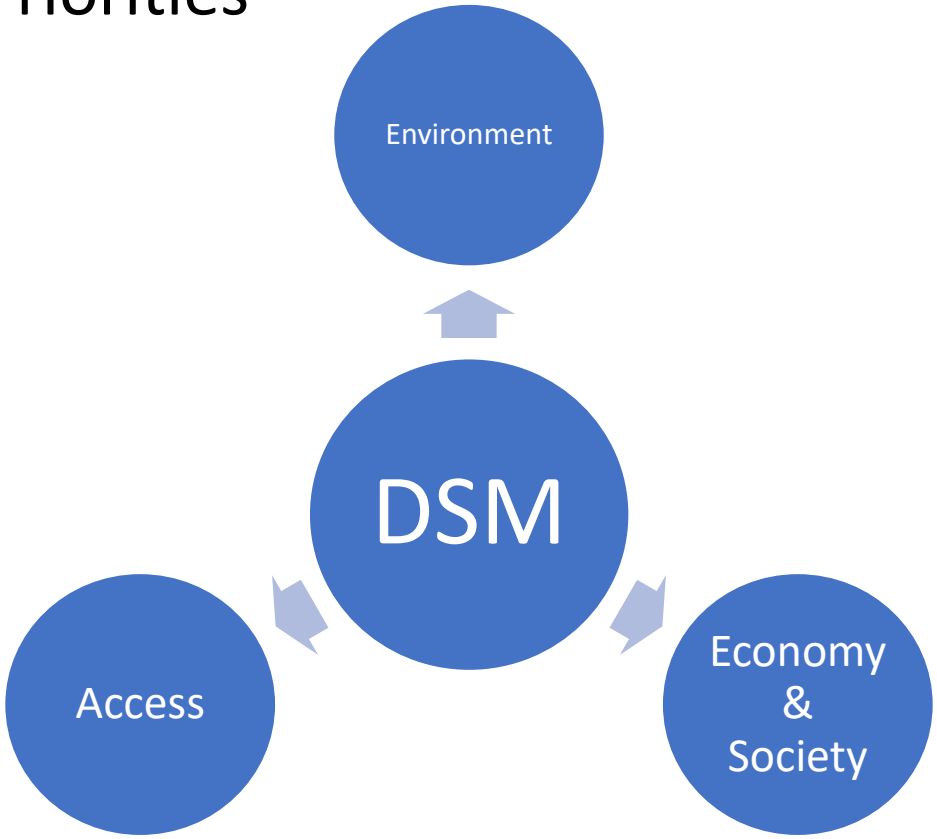
Tips

- Read the call topic carefully!
- Sleep with the description of the call to digest it
- Highlight your own keywords or phrases and keep pondering on them even when you think that you have formulated your solution
- Check again and again on nuances and variations of what you may believe is ideal and test them against key phrases from the topic description!

Session 2

Familiarisation with key documents for preparing successful H2020 ICT proposals

DSM for the benefit of all Europeans – Key Policy Priorities



Policy Areas - Environment

"Create the right environment for digital economy"

- Overhaul telecom rules – Remove national barriers
- A new audio-visual media service framework (Directive 2010/13/EU)
- On-line platforms & their central role in DSMs
- Reinforcing trust & security in digital services
- Partnership with industry on Digital security

Policy Areas – Economy & Society

“Ensuring that citizens & businesses will take full advantage digitalization”

- Remove barrier in the European data Economy
- Standardization & Interoperability
- Support an inclusive digital society

Policy Areas – Access

“Helping to make EU’s digital word a seamless and level market-place to buy and sell”

- Facilitate cross-border e-commerce
- Protecting consumers rights
- Guarantee access to audio-visual services

Digital Single Market – Fields of Action

ICT political context documents

- Directive (EU) 2018/1808 of the European Parliament […] on the coordination of certain provisions laid down by law, regulation or administrative action in EU concerning the *provisision of audiovisual media services* (AMSD) in view of changing market realit
- Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on ***open data and the re-use of public sector information***
- DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on certain aspects concerning contracts for the *supply of digital content and digital services*

ICT political context documents

- On certain permitted uses of certain works and other subject matter protected by copyright and related rights for the benefit of persons who are ***blind***, ***visually impaired*** or otherwise print- disabled and amending Directive 2001/29/EC on the harmonization[…]
- Regulation (EU) 2019/1150 of the European Parliament and of the Council of 20 June 2019 on promoting *fairness and transparency for business users of online intermediation services*

ICT political context documents

- Regulation (EU) No 1025/2012 of the European Parliament and of the Council of 25 October 2012 on ***European standardisation***, amending Council Directives 89/686/EEC and 93/15/EEC and Directives 94/9/EC, 94/25/EC, 95/16/EC, 97/23/EC, 98/34/EC, 2004/22/EC, 200[…]
- Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the *processing of personal data and on the free movement of such data*, and repealing Directive 95/46/EC (GDPR)

ICT political context documents

- COM: Building Trust in Human Centric A.I.
- COM: Coordinated Plan on Artificial Intelligence
- COM: Completing a trusted Digital Single Market for all
- COM: Data protection rules as a trust-enabler in the EU and beyond – taking stock
- COM: Online Platforms and the Digital Single Market Opportunities and Challenges for Europe

ICT political context documents

- COM: ICT Standardisation Priorities for the Digital Single Market
- COM: European Cloud Initiative - Building a competitive data and knowledge economy in Europe
- COM: Digitizing European Industry Reaping the full benefits of a Digital Single Market
- COM: Advancing the Internet of Things in Europe Accompanying the document - Digitising European Industry Reaping the full benefits of a Digital Single Market

ICT Roadmaps

- Impact assessment: On the modernisation of EU copyright rules
- Roadmap: 5G for Europe: An Action Plan
- Roadmap: Robotics on healthcare
- Roadmap: Electronics industry
- Roadmap: Cloud computing policy
- Roadmap: eHealth Action Plan 2012-2020 – innovative healthcare for the 21st century

ICT political context documents

- Impact assessment: On the modernisation of EU copyright rules
- Impact assessment: Accompanying the document proposal for a regulation on measures to reduce the cost of deploying high-speed electronic communications networks
- Impact assessment: Summary report of the targeted consultation on the HPC initiative in Europe and the EuroHPC inception
- DESI 2019 - Research and Innovation: ICT projects in Horizon 2020 Digital
- DESI 2018 - Connectivity - Broadband market developments in the EU

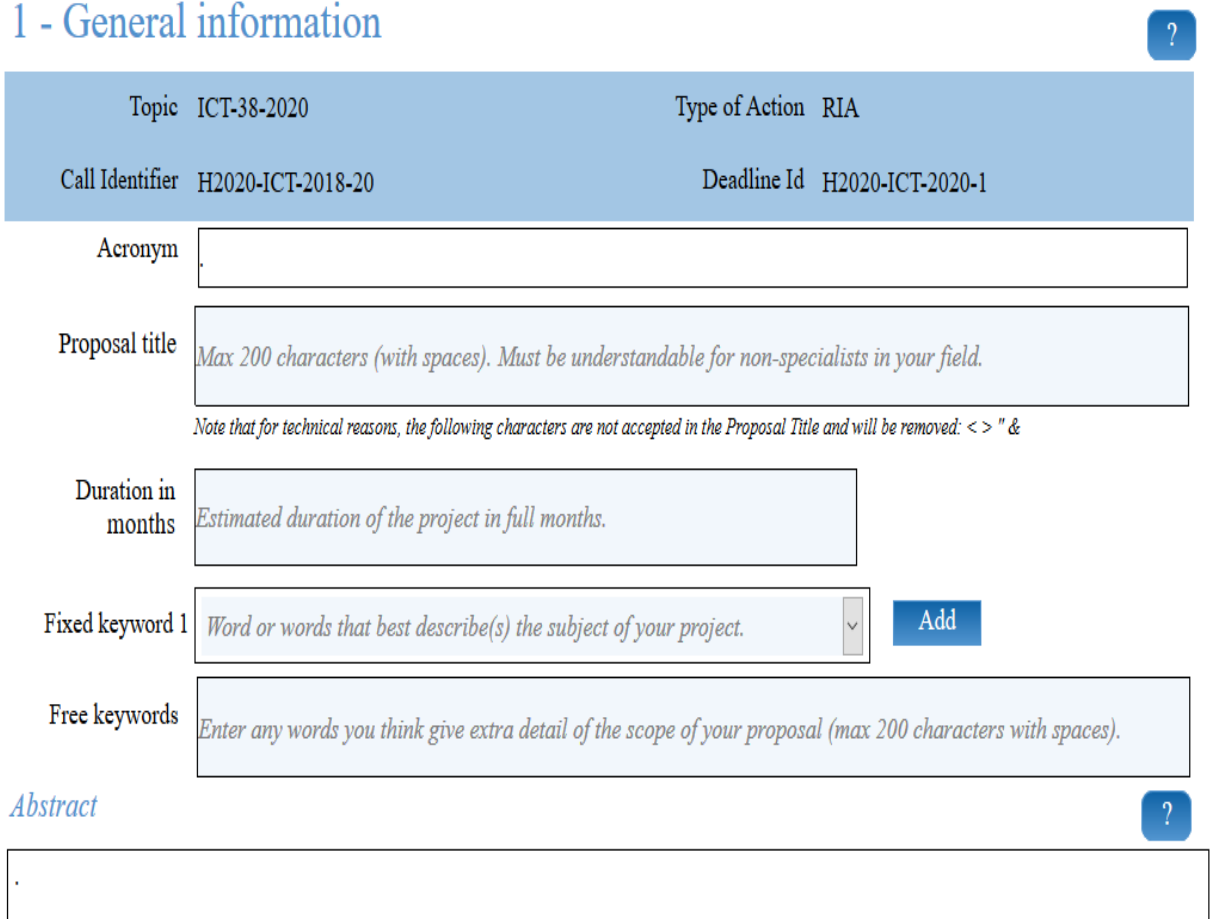
Proposal Basics

- **PART A** *ADMINISTRATIVE INFO*
  - General information
  - Participant information
  - Budget
- **PART B** *TECHNICAL INFO*
  - in PDF format
  - The sections follow the **evaluation criteria**
  - **Part B** 70 pages long (sections 1-3)
  - No page limits (sections 4-5)

PART A

Table of contents

Section	*Title*	*Action*
1	General information	Show
2	Participants & contacts	Show
3	Budget	Show
4	Ethics	Show
5	Call-specific questions	Show



-> completed in the EU Portal

Abstract is key to catch the attention of the evaluator!

Avoid copy-paste directly from the proposal or using confidential information.

Explain **concisely :**

A. what your objectives are
B. How they relate to the call
C. how you WILL achieve them!

Participant information

When coordinating there are 2 options:
1. Ask partners to fill in the info in the EU portal
2. Send a template (asking also the partner description for Section 4-PART B)

Partner Full Name			
Short Name		Country	
Type		Website	
Official Logo			
Brief Partner Profile			
Role in Project			
Relative Expertise / Experience			
Relevant Projects / Activities / Initiatives			
Relevant Publications			
Infrastructure and Technical Equipment			
Expected Benefits			
Key Personnel's CVs			

2. Participant information (Part B)

- **Promote** your organization: match with activities in the proposal.
- **Explain** your role in the project
- **Demonstrate** you have related experience + network in nat. & EU projects
- **Add** Publications, IP or commercial services related to the topic

Partner Full Name	FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.		
Short Name	IAIS	Country	Germany
Type	[Research]	Website	www.iais.fraunhofer.de

Official Logo

Fraunhofer IAIS

Brief Partner Profile

The Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V. is with more than 20,000 employees and 2 Billion Euro annual research budget one of the leading organizations for applied research worldwide. The Fraunhofer Institute for Intelligent Analysis and Information Systems (IAIS) is the Fraunhofer Society's "data institute" and one of the most renowned research institutions in the data science area, with an extremely strong track record in data mining, machine learning, visual analytics, semantic technologies, information retrieval and software engineering. The research results are documented through a vast number of publications (> 200 publications since 2010) in renowned conferences (e.g. KDD, ICML, ICDM, AAAI, UAI, IJCAI, ECML / PKDD, WWW, CIKM, Coling, IEEE InfoVis, IEEE VAST, ACM GIS) and leading journals (Machine Learning JMLR, Data Mining and Knowledge Discovery, ACM Computing Surveys, IEEE Transactions on Visualization and Computer Graphics, Int J GIScience). IAIS staff is .....

Role in Project

Fraunhofer IAIS is responsible for Visual Analytics

Relative Expertise / Experience

Fraunhofer IAIS is one of the most important applied research institutions in Germany in areas of data science, machine learning, AI and visual analytics.

Relevant Projects / Activities / Initiatives

- VaVeL H2020 (Variety, Veracity, VaLue: Handling the Multiplicity of Urban Sensors, 2015-2018)
- INSIGHT FP7 (Intelligent synthesis and real-time response using massive streaming of heterogeneous data, 2012-2015)
- DataSim FET-Open project (Data Science for Simulating the Era of Electric Vehicles, 2011 - 2014)

  Within projects DataSim, INSIGHT and VaVeL our group developed theoretical foundations and advanced prototypes for visually-driven analysis of various kinds of temporal and spatial data, including movement data

- datAcron H2020 (Big Data Analytics for Time Critical Mobility Forecasting, 2016-2018)

  In datAcron project, methods and tools developed in prior projects were further developed and adapted for two new application domains, aviation and sea traffic. The methods have been extensively tested with massive real data sets.

2. Participant information (Part B)

Short CV of your team

-> Related experience

-> Gender Balance!

Key Personnel's CVs

Prof. Dr. Gennady Andrienko (male) and **Prof. Dr. Natalia Andrienko** (female) (www.geoanalytics.net/and) are lead scientists responsible for the visual analytics research at Fraunhofer IAIS and full professors (part time) at City University London, UK. They co-authored monographs "Exploratory Analysis of Spatial and Temporal Data" (Springer, 2006) and "Visual Analytics of Movement" (Springer, 2013), more than 80 peer-reviewed journal papers, 25 book chapters, and about 100 conference papers. From 2007 till 2015, Gennady Andrienko was a chair the Commission on GeoVisualization of the ICA - International Cartographic Association. He co-organized scientific events on visual analytics, geovisualization and visual data mining, and co-edited 13 special issues of major journals. Gennady Andrienko is associate editor of three journals, Information Visualization (since 2012), IEEE Transactions on Visualization and Computer Graphics (2012-2016), and International Journal of Cartography (since 2014). Gennady Andrienko is associate editor of IEEE Transactions on Visualization and Computer Graphics (since 2016). Gennady and Natalia Andrienko received best paper awards at AGILE 2006, EuroVis 2015, and IEEE VAST 2011 and 2012 conferences and EuroVA 2018 workshop, honorable mention award at IEEE VAST 2010, VAST challenge awards 2008 and 2014, and best poster awards at AGILE 2007 and 2018, ACM GIS 2011, and IEEE VAST 2016 conferences.

Dr. Georg Fuchs (male) has been doing research on visualization of spatio-temporal data, task-driven adaptation of visual representations and Smart Visual Interfaces in several joint academia-industry and EU research projects at Rostock University since 2004. He is also cooperating with German Federal Office of Defense Technology and Procurement for which he develops methodologies and tools for analysis and visualization of oceanographic data. Since 2012 Dr. Georg Fuchs is affiliated with Fraunhofer IAIS working in the field of visual analytics, again with a strong emphasis on spatio-temporal data analysis. His research interests include information visualization, geovisualization, visual analytics, as well as computer graphics and rendering. He obtained his PhD degree in computer sciences in 2011 from Rostock University. He received a best short paper award at Smart Graphics 2008 and VAST Challenge award 2014 for outstanding scalable analysis.

Hendrik Stange (male) is a senior data scientist at the Fraunhofer Institute for Intelligent Analysis and Information Systems IAIS. He is heading big data analytics projects in automotive, healthcare, logistics, security, and customer goods. As a practicing project manager he is responsible for business innovation and method development supporting market leaders and SME in becoming data-driven enterprises. He is an

2. Participant information (Part B)

Subcontracting (IF NEEDED!)
Justify well to be acceptable + avoid losing time during GA preparation!

Third party link (+flexible),
-> demonstrate the relation between the entities (B4.2)

Does the participant plan to subcontract certain tasks (please note that core tasks of the project should not be sub-contracted)	Y/N
If yes, please describe and justify the tasks to be subcontracted	
Does the participant envisage that part of its work is performed by linked third parties[2]	Y/N
If yes, please describe the third party, the link of the participant to the third party, and describe and justify the foreseen tasks to be performed by the third party	
Does the participant envisage the use of contributions in kind provided by third parties (Articles 11 and 12 of the General Model Grant Agreement)	Y/N
If yes, please describe the third party and their contributions	
Does the participant envisage that part of the work is performed by International Partners[3] (Article 14a of the General Model Grant Agreement)?	Y/N
If yes, please describe the International Partner(s) and their contributions	

Budget

3 - Budget

No	Participant	Country	(A) Direct personnel costs/€	(B) Other direct costs/€	(C) Direct costs of sub-contracting/€	(D) Direct costs of providing financial support to third parties/€	(E) Costs of inkind contributions not used on the beneficiary's premises/€	(F) Indirect Costs € (=0.25(A+B-E))	(G) Special unit costs covering direct & indirect costs €	(H) Total estimated eligible costs € (=A+B+C+D+F +G)	(I) Reimburse-ment rate (%)	(J) Max.EU Contribution /€ (=H*I)	(K) Requested EU Contribution/€
1	Center For Technology Research	CY	0	0	0	0	0	0,00	0	0,00	100	0,00	0,00
	Total		0	0	0	0	0	0,00	0	0,00		0,00	0,00

Budget

❑ Personnel costs (main cost of most projects):

– ***Calculation of personnel costs*****.** When calculating the personnel costs, EC is interested in the **average monthly cost** of employment of the personnel that is expected to participate in the project of each partner**, presented in EURO per person-month.**
The average monthly cost of employment should include the salaries plus any additional employer's payments (social benefits, pension, etc.).
No need to get into the fine details of all salaries and additional payments. Up to the Accounting dept. of the partner institution to provide these required figures.

– ***Allocation of person-months per work package*****:** each partner should estimate how many person-months should allocate per task. These numbers then add up to the total amount of person-months per partner.

Budget

❑ Travel costs:

– Travel costs can be associated with specific tasks or work packages, although it is not a must. It ok to present a general travel budget (per partner) for the entire project.

– It is recommended to have some kind of breakdown. Since it is hard to predict the exact costs of future travel expenses, we recommend using an **average cost of travel and multiplying it with the expected number of trips** planned during the project. The average travel cost should include transport, accommodation and subsistence per person, for a period of 2-3 days.

– Travel is of course expected when implementing a Horizon 2020 project. Do not **overdo it**. Keep the travel budget realistic and appropriate to the amount of involved personnel (per partner) and associated tasks.

Budget

❑ **Equipment costs:**

– Any equipment required for the direct execution of the project is eligible for funding.

– Horizon 2020 equipment budget requests should be claimed based on their **depreciation value according to the local tax laws of each partner**. The financial department in each institution should be able to assist in this regard.

Budget

❑ **Other goods & services costs:**

– Any goods and/or services required for the direct execution of the project can be added to the requested budget.

– In case a **partner's total direct cost surpasses €325.000, a Certificate on Financial Statements (CFS)** or **audit certificate** is required to be submitted once the project ends. The cost of CFS is eligible and should be included in the partner's budget estimation under this category.

Budget

❑ **Sub-contracting and 3rd parties:**

– Any cost that might be directed towards sub-contractors and involved 3rd parties should be included in the requested budget. Any external services that are performed outside of the consortium should be **used only if essential and justified**.

– Keep in mind that subcontracting costs are **not eligible for the 25% flat-rate addition of indirect costs**.

Budget

Consolidating the Horizon 2020 budget

Add up all costs (per category) declared from all partners. This will reveal what the total project budget has amounted to. If the total budget is within the expected range of the requested EC contribution for this project (as mentioned in the call text), the following step can be to draft the budget description in section 3.4 of the template.

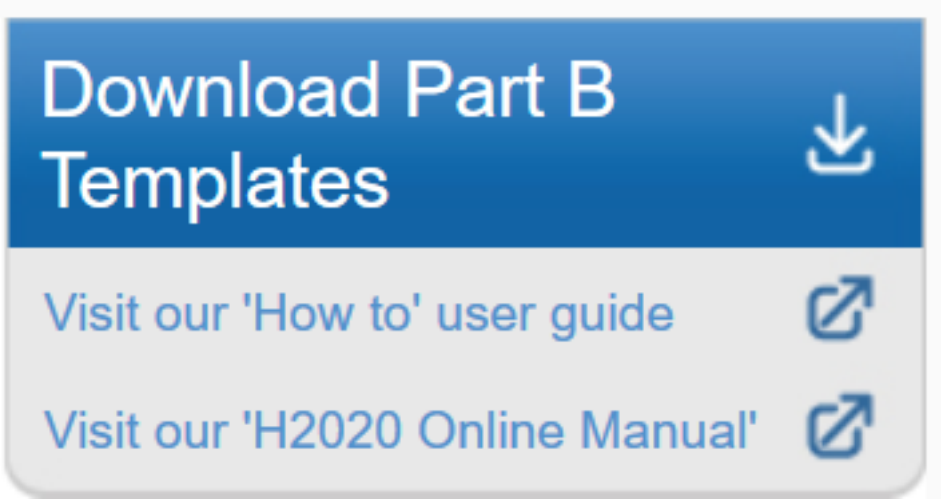
If the total budget significantly exceeds the expected requested contribution, it is necessary to revisit the input from the partners and consult with them regarding the reduction of the budget. The budget cut could be surgical (per partner) or horizontal (be that it is mutually agreed on).

Some rules of budget consolidation

When consolidating the Horizon 2020 budget, we recommend to attend to the following unwritten rules and suggestions, based on our experience and feedback from reviewers:

- **Avoid** allocating more than 25% of the overall budget to a single partner (Coordinator included)
- **Avoid** allocating more than 35-40% of the overall budget to a single country (all partners from the same country together)
- The budget allocated for coordination and project management activities (mostly by the coordinator) should **be between** 5% to 6% of the overall budget. In the past, it could be 7 to 7.5%, however today the expectation of coordination costs is lower!
- **Do not** allocate coordination and PM activities to other partners, except for dedicated management partners.

Part B


Download Part B Templates
Visit our 'How to' user guide
Visit our 'H2020 Online Manual'

/

Proposal template: technical annex

(for full proposals: single stage submission procedure and 2nd stage of a two-stage submission procedure)

Research and Innovation actions
Innovation actions

This template is to be used in a single- stage submission procedure or at the 2nd stage of a two-stage submission procedure.

The structure of this template must be followed when preparing your proposal. It has been designed to ensure that the important aspects of your planned work are presented in a way that will enable the experts to make an effective assessment against the evaluation criteria. Sections 1, 2 and 3 each correspond to an evaluation criterion.

Please be aware that proposals will be evaluated as they were submitted, rather than on their potential if certain changes were to be made. This means that only proposals that successfully address all the required aspects will have a chance of being funded. There will be no possibility for significant changes to content, budget and consortium composition during grant preparation.

⚠ **Page limit**: The title, list of participants and sections 1, 2 and 3, together, should not be longer than 70 pages. All tables, figures, references and any other element pertaining to these sections must be included as an integral part of these sections and are thus counted against this page limit.

The page limit will be applied automatically; therefore you must remove this instruction page before submitting.

If you attempt to upload a proposal longer than the specified limit before the deadline, you will receive an automatic warning and will be advised to shorten and re-upload the proposal. After the deadline, excess pages (in over-long proposals/applications) will be automatically made invisible, and will not be taken into consideration by the experts. The proposal is a self-contained document. Experts will be instructed to ignore hyperlinks to information that is specifically designed to expand the proposal, thus circumventing the page limit.

Please, do not consider the page limit as a target! It is in your interest to keep your text as concise as possible, since experts rarely view unnecessarily long proposals in a positive light.

⚠ The following formatting conditions apply.

The reference font for the body text of H2020 proposals is Times New Roman (Windows platforms), Times/Times New Roman (Apple platforms) or Nimbus Roman No. 9 L (Linux distributions).

The use of a different font for the body text is not advised and is subject to the cumulative conditions that the font is legible and that its use does not significantly shorten the representation of the proposal in number of pages compared to using the reference font (for example with a view to bypass the page limit).

The minimum font size allowed is 11 points. Standard character spacing and a minimum of single line spacing is to be used.

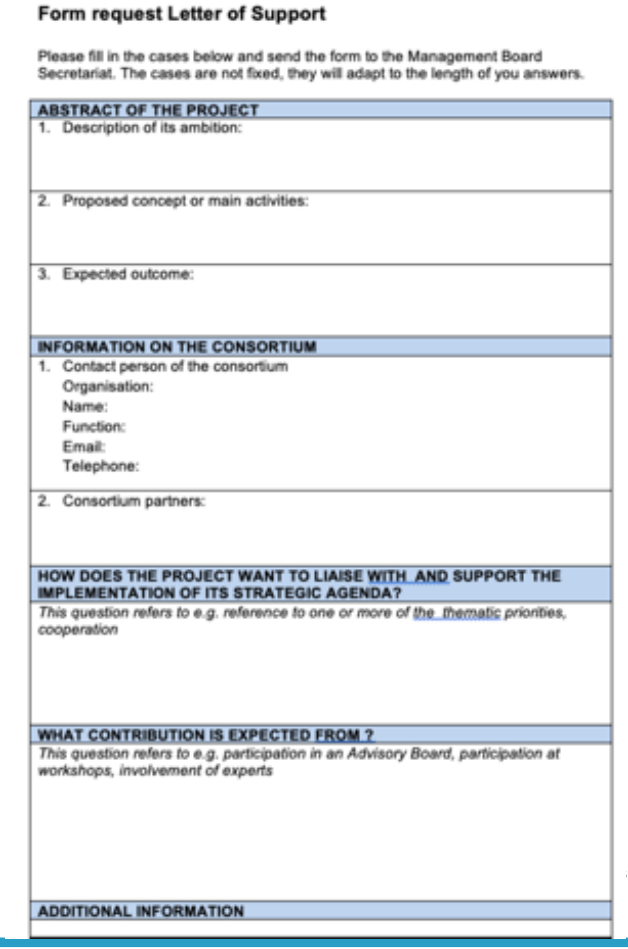
Text elements other than the body text, such as headers, foot/end notes, captions, formula's, may deviate, but must be legible.

The page size is A4, and all margins (top, bottom, left, right) should be at least 15 mm (not including any footers or headers).

Letter of Support request

The following information has to be provided:

- Abstract of the project describing its ambition, proposed concept or main activities, expected outcome
- Information on the consortium
- Information on how the project wants to liaise and support the implementation of its strategic agenda
- Information on what contribution is expected (e.g. participation in an Advisory Board, participation at workshops, involvement of experts,…)



Form request Letter of Support

Please fill in the cases below and send the form to the Management Board Secretariat. The cases are not fixed, they will adapt to the length of you answers.

ABSTRACT OF THE PROJECT

1. Description of its ambition:
2. Proposed concept or main activities:
3. Expected outcome:

INFORMATION ON THE CONSORTIUM

1. Contact person of the consortium
   Organisation:
   Name:
   Function:
   Email:
   Telephone:
2. Consortium partners:

HOW DOES THE PROJECT WANT TO LIAISE WITH AND SUPPORT THE IMPLEMENTATION OF ITS STRATEGIC AGENDA?

This question refers to e.g. reference to one or more of the thematic priorities, cooperation

WHAT CONTRIBUTION IS EXPECTED FROM ?

This question refers to e.g. participation in an Advisory Board, participation at workshops, involvement of experts

ADDITIONAL INFORMATION

Letter of Support template

Name of Institution and address of institution

ORGANIZATION LOGO

To: Dr XXX
Associate Professor, Department of XXX

Address:
.....
.....
.....

Subject: *Letter of Support for project YYY,*

As the <position> of <organization name>, I would like to confirm our willingness to support the **YYY** proposal, led by the ZZZ. The proposal will be submitted to European Commission in the scope of the Horizon 2020 call ICT-25-2018-2020 on the topic Interactive Technologies

The goal of YYY is to .....

Letter of Support template

<ORGANIZATION>, recognizing the alignment of YYY's ambition with its own mission and its great potential, will:

CHOOSE ONE ORE MORE OF THE FOLLOWING OR ADD YOUR OWN

- Facilitate the deployment of advanced technologies in its own and affiliate infrastructures
- Provide knowledge and expertise as a technology provider/industrial leader
- Work together with YYY to increase trust/adoption of solutions
- Participate in stakeholder engagement events, development and dissemination
- Present and disseminate its results via its communication channels

We wish you a successful proposal and look forward to our collaboration in the framework of YYY.

Yours sincerely,

<To be signed by hand>

NAME
ROLE and AFFILIATION
Tel: +TEL Email: EMAIL

City, Date

Grant Agreement

The Grant Agreement (**GA**) is the funding agreement concluded between the European Commission /funding agency and the project participants and specifies the rights and obligations of the contracting parties. It contains important provisions for the implementation of the project such as criteria for the eligibility of costs and provisions for handling intellectual property rights.

Grant Agreement

Structure and key points of the General Grant Agreement

- Preamble – Participants
- Chapter 1 – General
- Chapter 2 – Action (name, acronym, start and duration of project etc.)
- Chapter 3 – Grant (max. amount and calculation of grant, funding rate(s), eligible costs)
- Chapter 4 – Rights and obligations of the parties (e.g. third party costs, documentation obligations, reporting and payments, checks/reviews/audits and management of intellectual property)
- Chapter 5 – Division of roles and responsibilities (within the consortium)
- Chapter 6 – Rejection of costs, reduction of the grant etc.
- Chapter 7 – Final provisions

Grant Agreement

The Grant Agreement includes the following Annexes:

- Annex 1 – Description of the action (DoA)
- Annex 2 – Estimated budget for the action
- Annex 3 – Accession Forms
- Annex 4 – Model for the financial statements
- Annex 5 – Model for the certificate on the financial statements (CFS)
- Annex 6 – Model for the certificate on the methodology (CoMUC)

Consortium agreement

The Consortium Agreement specifies the rights and obligations of the project partners. A Consortium Agreement is obligatory for most projects and should be signed prior to the Grant Agreement.

The **consortium is solely responsible** for the preparation of the Consortium Agreement. The **CA must not contradict the GA**.

The information provided by the project partners in the **Description of the Action** (Annex 1 of the GA) are therefore binding for the Consortium Agreement.

Consortium agreement

Consortium Agreements typically specify the following topics:

- **General provisions**: definitions, entry into force, duration, applicable law (often: Belgian law) etc.
- **Obligations of partners**: compliance with deadlines for deliverables and reports, information obligations, participation in meetings etc and consequences of non-compliance
- **Internal organisation and decision-making**: composition and duties of bodies (corresponding to the size of the consortium), meetings, voting rules etc.
- **Financial provisions**: allocation of funding and transfer to the partners (e.g. payment of pre-financing in instalments), handling of receipts and financial losses etc.
- **Provisions on the handling of intellectual property rights**: more detailed information about the consortium's ability to specify the handling of intellectual property rights, access rights and project results can be found in the documents available in the Download Center.
- **Other issues**: liability, non-disclosure, dispute resolution …

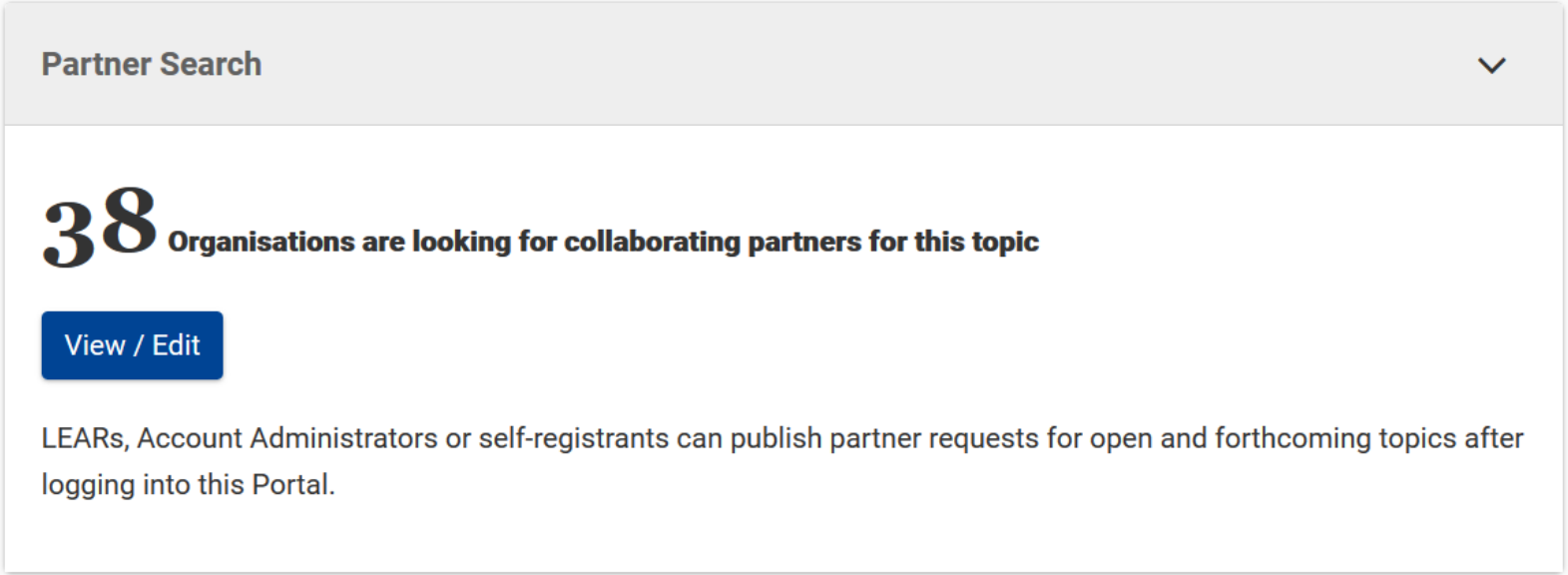
Session 2

Who are the key actors in ICT calls and how to engage with them

How to engage with ICT key actors

I want to promote company skills and be partner in a proposal

1. Use the partner search in a call topic



How to engage with ICT key actors

1. Create a **Concept note** to *capture the key actors* on the value chain of your project

2. Develop a structured *set of questions* to **gather the key information** on what they are doing (or how they feel), what they may be concerned about and what their expectations are.

3. ***Analyse the info*** gathered against what you want / levels of engagement you require. Essentially **what you want them to be doing in your project**. Be specific.

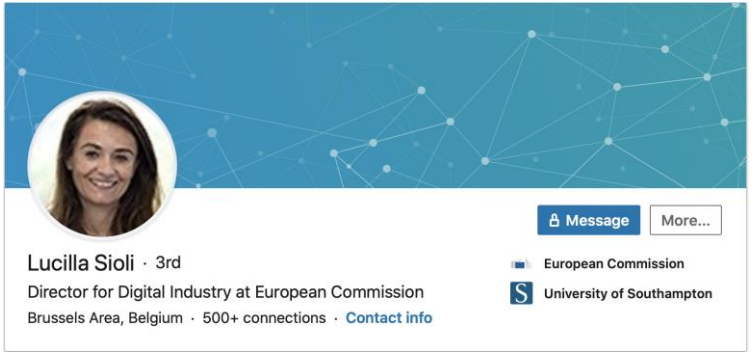
4. Develop a *persuasive* ***stakeholder engagement strategy*** that uses visual tools and story-telling capability to involve, interest, motivate, inspire and retain them.

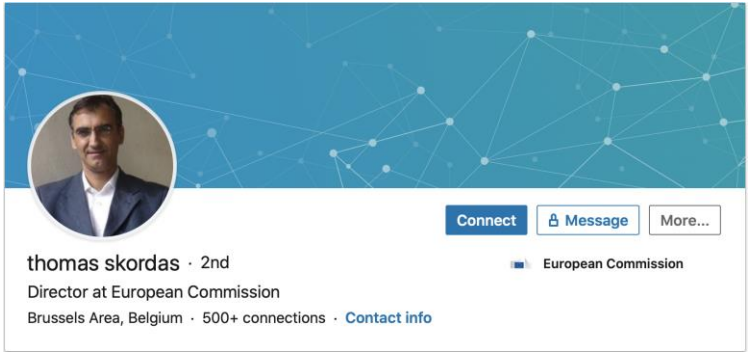
How to engage with ICT key actors

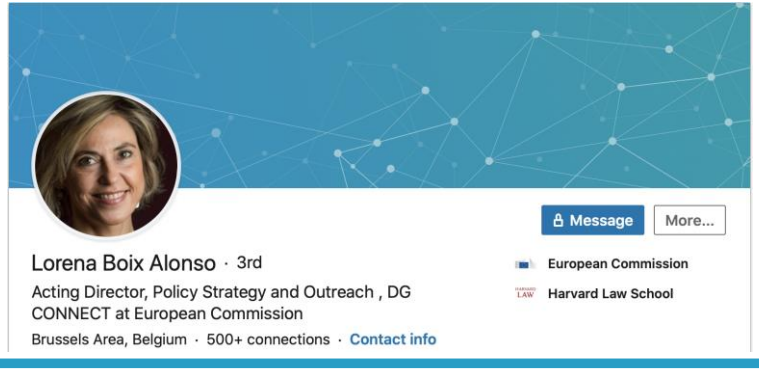
2. Attend H2020 EU ICT Info-days – Great for networking

How to engage with ICT key actors

3. From the a list of top participants & EU Officers – try to engage through email / linkedIn

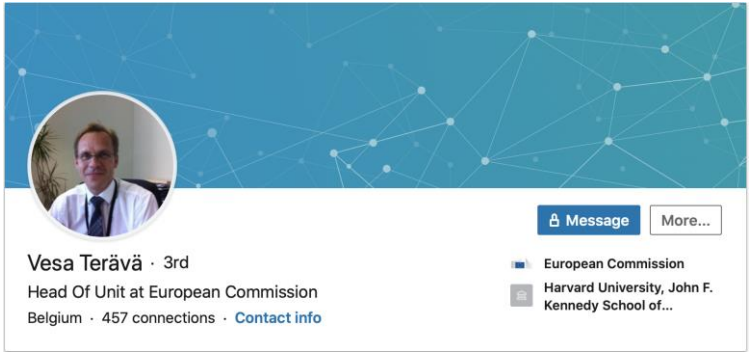


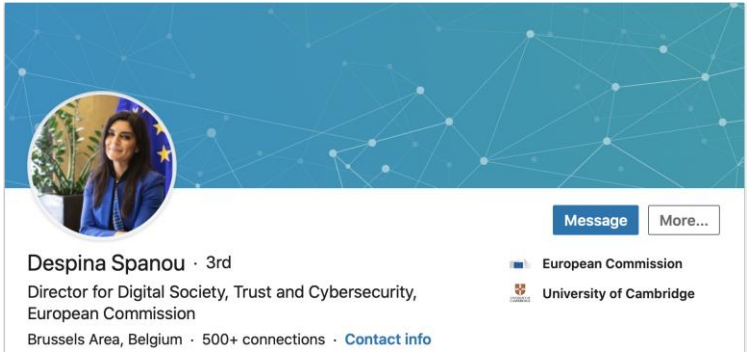


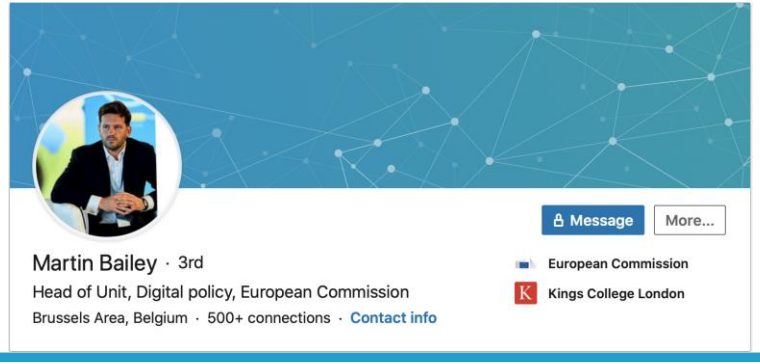


How to engage with ICT key actors

3. From a list of top participants - contact them through email / linkedIn

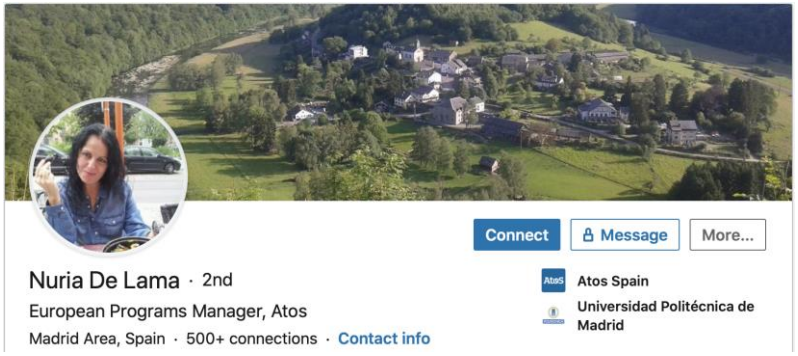


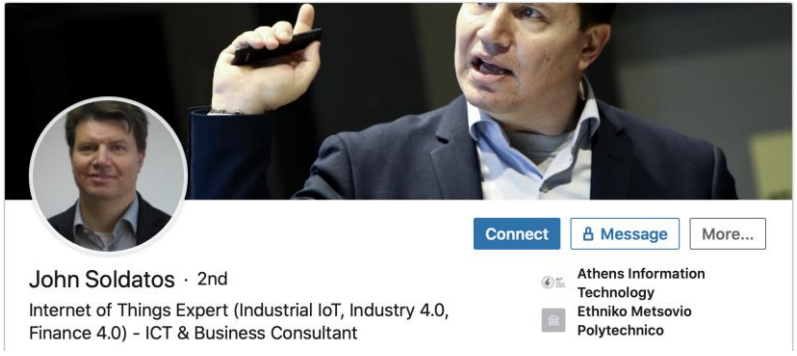


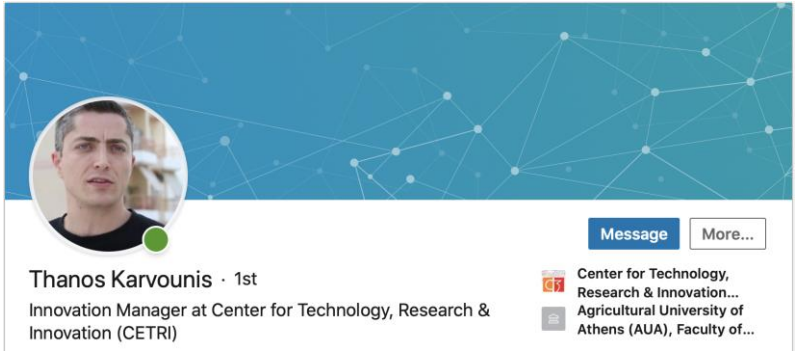


How to engage with ICT key actors

3. From the previous list of top participants - contact them through email / linkedIn







ICT concept note example

Abstract

Data Science, Machine Learning and Artificial Intelligence have recently become so prevalent in our everyday lives that they affect many aspects of our daily lives to a large extend. They comprise a set of tools that became integrated with our routines, homes and the way we interact with the world.

It is therefore crucial for citizens to able to understand and use this new Machine Learning enabled technologies. These are not trivial concepts to grasp, though. Data science algorithms lack transparency, they suffer from bias, whilst they need to achieve interoperability of results and work with data that usually have to deal with privacy, complexity, volume and interaction issues.

DataLogue offers a solution to the above, by improving the transparency and interoperability of data science and machine learning, by letting us interact with the algorithms and the data via a collaborative fashion.

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.

Therefore, we are going to develop an interactive system that will enable users to a) communicate data science results, b) help data science algorithms become more interpretable and explainable, c) teach (educate) data science principles to citizens and students.

The applications of our project could be applied in many disciplines: everywhere where data mining and machine learning algorithms are being utilized. However, our use cases will focus on:

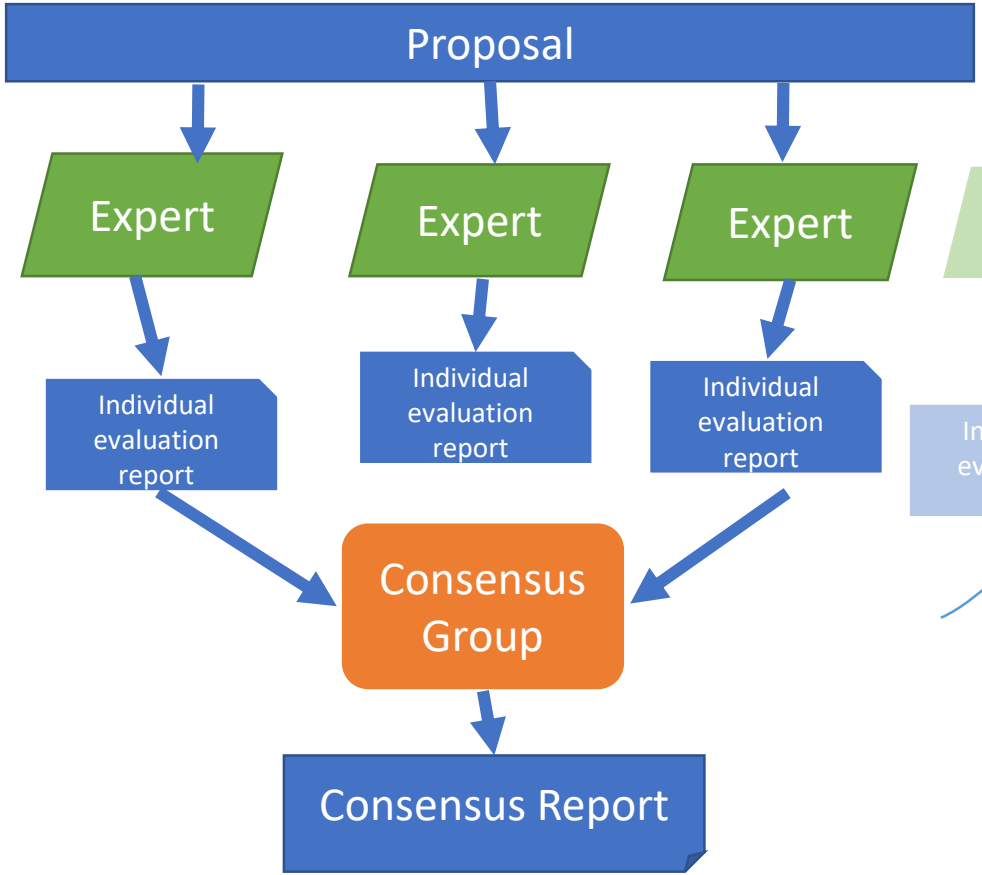
1. Education of Data Science: It will be possible for the first time to teach an advanced technology (artificial intelligence/machine learning) at an early stage of the educational process. Given that AI is likely to have a significant impact on the economy as a whole teaching AI early might be vital.
2. Data Science in Smart Cities: Smart city connected with cultural/tourist information (e.g.: to better manage tourists flow, to improve tourists and citizens experiences.) This could be an app for tourists, but also for municipalities.
3. Data Science in Business/Finance: It will be possible for finance and investment companies to better understand and visualise the complexities and underlying patterns of their expensive and critical data.

Our project will enable the exploration of data and the application of machine learning algorithms through interactive technologies. In this setting multiple users will interact with the data at the same time. The users can jointly and collaboratively explore the data in multiple settings. By entering the "data-enhanced world" together, a more experienced machine learning expert can explain the results of the models to the end user. Two or more novice users can also benefit from the platform by exploring together the virtual world. For example, collaboration could be achieved in the education sector, by allowing teachers and students to interact within the same tool and without necessarily being in the same room.

Session 3

How to impress the evaluators

Evaluation process



Eligible proposal

Expert

Minimum 3 experts

Individual evaluation report

Individual evaluation

Consensus

Individual evaluation

- **Evaluator reads the proposal and evaluate it according to the evaluation criteria**

– Without discussing it with anybody else

– As submitted - not on its potential if certain changes were to be made

– Should not penalize applicants that did not provide detailed breakdown costs – they are not required!

- **Must disregard excess pages marked with a watermark**
- **Must check to what degree the proposal is relevant to the call or topic**

Individual evaluation

- **Must complete an Individual Evaluation Report (IER)**

– Gives view on operational capacity

– Gives comments and scores for all evaluation criteria (scores must match comments)

– Should not recommend substantial modifications

- **Evaluator submits the form and sign in the electronic system**

Key points about the review process

1. **Reviewers are not direct extensions of the EC and its point of view.**

-> Reviewers do not directly reflect the mindset of the funding authorities, as many believe. While instructions for evaluation exist, we know from experience that there is an undocumented policy whereas reviewers can evaluate based on their interpretation of the call and requirements. There are cases of reviewers who did not receive briefing for evaluation.

2. The reviewers are limited in time when reviewing your application. It is reasonable to assume that they have more than one proposal to evaluate on the same day (it may even be 2-3 proposals per day). Generally – their motivation is to complete their proposal review tasks as soon as possible.

Key points about the review process

3. Reviewers may experience "emotional feedback" when reviewing your grant proposal. It is important to remember – reviewers are humans. They approach a grant review process with a personal track record, unique experience and past in the field they are required to review. Whether consciously or subconsciously, this can lead them to feel positive or negative emotions towards the applications they are reviewing. Once there, positive emotions can lead them to look for and highlight positive aspects to support an overall positive decision. In contrast, negative emotions will do the opposite, resulting with a negative overall review. In our experience generally a reviewer's starting point is rather positive when reviewing new applications. Therefore, our motivation is to keep this "emotional feedback" positive, rather than turn it into a negative one. A crisp, concise and well-written application can tremendously help!

Key points about the review process

4. The reviewers sometimes may not read your entire proposal text. Given their time constraints, reviewers do not like to read everything. They read what they have to in order to complete their evaluation task and look for answers in specific places in the proposal (which means knowing where to provide information is crucial). This brings us to the final point…

5. During the review process, the reviewers receive a list of pre-defined questions to answer in an electronic form. They are required to provide a mark per question and a short feedback text. This means they may be satisfied by looking for specific answers to the specific questions in specific places in your application.

Self-Evaluation Forms

- This form is made available to applicants who may themselves wish to arrange an **evaluation of their proposal** (e.g. by a colleague) prior to final editing, submission and deadline.
- The aim is to help applicants identify ways to improve their proposals. The forms used by the experts for their evaluation reports will be broadly similar, although the detail and layout may differ.

Self-Evaluation Forms

- These forms are based on the standard criteria, scores and thresholds. Check whether special schemes apply to your topics of interest. The definitive evaluation schemes are given in the work programme.
- A self-evaluation, if carried out, is **not to be submitted to the Commission**, and has no bearing whatsoever on the conduct of the evaluation.

https://ec.europa.eu/research/participants/data/ref/h2020/call_pte f/ef/2018-2020/h2020-call-ef-ria-ia-csa-2018-20_en.pdf

Self-Evaluation Forms

1. Excellence

Note: The following aspects will be taken into account, to the extent that the proposed work corresponds to the topic description in the work programme:

- **Clarity and pertinence of the objectives**
- **Soundness of the concept, and credibility of the proposed methodology**
- **Quality of the proposed coordination and/or support measures**

Comments:

Score 1:
Threshold 3/5

2. Impact

Note: The following aspects will be taken into account:

- **The extent to which the outputs of the project would contribute to each of the expected impacts mentioned in the work programme under the relevant topic**
- Quality of the propsed measures to:
  - exploit and disseminate the project results (including management of IPR), and to manage research data where relevant
  - communicate the project activities to different target audiences

Comments:

Score 2:
Threshold 3/5

3. Quality and efficiency of the implementation*

Note: The following aspects will be taken into account:

- Quality and effectiveness of the work plan, including extent to which the resources assigned to work packages are in line with their objectives and deliverables
- Appropriateness of the management structures and procedures, including risk and innovation management
- Complementarity of the participants and extent to which the consortium as whole brings together the necessary expertise
- Appropriateness of the allocation of tasks, ensuring that all participants have a valid role and adequate resources in the project to fulfil that role.

Comments:

Score 3:
Threshold 3/5

Total score (1+2+3)
Threshold 10/15

Proposal Evaluation: Mistakes - Excellence

*The objectives are clear and pertinent to the objectives of the work programme. However, **success indicators are not sufficiently quantified**.*
*The concept is sound, interesting and the proposed methodology is credible. A strong facet of the proposed project is the fact that it takes into account the needs of people with disabilities, supporting their participation in interactive technologies. However, as the implementation is mostly use-case oriented, **a universally valid solution is insufficiently elaborated**.*
*Moreover, the **research goals of the use-cases are not sufficiently detailed**.*
*Finally, it is **not clearly explained how the users of the platform will interact with each other**.*

Proposal Evaluation: Common Mistakes - Excellence

Overall, ***the extent to which the proposed work is beyond the state of the art, and demonstrates innovation potential*** ***is partly described and in a generic way****.*
The approach and some of proposed use scenarios are innovative, for example with respect to adaptive immersive environments. ***The potential for innovation is high,*** *but* ***is mainly restricted to combining the research areas addressed by the proposed project****.*
Moreover, the advancement of the state of the art in multi-user immersive environments, neuroscience, and visual analytics for immersive environments is not sufficiently elaborated.
Appropriate consideration of interdisciplinary approaches is presented. The use of stakeholder knowledge is appropriately addressed.

Proposal Evaluation: Common Mistakes - **Impact**

1. Not well demonstrated how the targets will be reached!
2. The proposal gives insufficient outline of the barriers that could limit the impact
3. Impacts are not convincingly substantiated by relevant standards, indicators and metrics.
4. Failing to meet the target.
5. Outlook on market penetration is not very realistic.
6. Missing clear exploitation plan (individual and Joint)
7. Communication and Dissemination is not addressing all stakeholders
8. Not considering scalability and replicability plan
9. No business model supporting the solution
10. Unique selling points with respect to the competition are not justified by sufficient technical data

Proposal Evaluation: Common Mistakes - Implementation

1. Task description lack details / allocation of resources among participants is inadequately elaborated in WPs and the involvement of partners in the different activities is not sufficiently clear, justified nor balanced.
2. In some work packages, all partners have resources, but their role is not evident!
3. Important risks related to the difficulties on ensuring the device demonstration are not considered.
4. Deliverables lack specific performance goals and therefore are not developed to form a measurable outcome of successful execution
5. Timing of several tasks is inconsistent.

Proposal Evaluation: Common Mistakes- Implementation

6. The milestones and deliverables do not match.
7. Not clear how the existing expertise and infrastructure will be used for delivering the innovation to the market
8. The risks in relation to the technical performance of the product are not sufficiently
addressed.
9. Engagement of subcontractors in the tasks and their selection procedure are not explained
10.Other direct cost are not justified

ESR of successful proposals - Excellence

1. The concept is particularly adapted for large-scale deployment
2. The project will credibly contribute to the development of the solution
3. Complementary tools are convincingly addressed in the proposal
4. Regulatory, legal, data security and socio-economic aspects have dedicated tasks
5. Includes an Environmental impact assessments
6. Credibility is excellent because it follows R&D + Integration + Validation in REAL demo sites

ESR of successful proposals - Excellence

7. Ad-hoc indicators are convincingly introduced into the project and will credibly allow the monitoring of progress towards objectives.
8. It is convincing that the system and all core components of the project are developed from TRL5 to TRL6/7 or from TRL6/7 to TRL8, which is fully in line with the call.
9. The consideration of interdisciplinary approaches is excellent because it combines engineering, business, law and data science and social sciences in an interactive manner from the outset.
10. The use of stakeholder knowledge is excellent because use of relevant stakeholder knowledge (e.g., utilities, energy consumers) is integrated into the project concept.
11. The gender dimension in the research and innovation content is explicitly and convincingly addressed.

ESR of successful proposals - Impact

1. The proposal present quantifiable KPIs to assess the impact requested in the call topic
2. The proposal convincingly justifies how the results will be achieved
3. The replicability to other similar demo sites is highly convincing (3 demos + 5 followers)
4. The proposal includes a convincing business case and strategy for the consortium to exploit the project outputs, highlighting key exploitable results and individual exploitation strategies for each type of partner organisation

ESR of successful proposals - Impact

5. IPR management is well addressed, comprehensive and convincing, covering all necessary issues
6. The dissemination plan is effective, concise and stakeholder-oriented. It includes an ambitious plan for workshops, conferences and extensive networking.
7. The proposal identifies relevant target audiences such as citizens, media consumers and various media channels including a website, social networks, media and press releases.
8. The proposal present related impacts, social, environmental, economic, political, etc

ESR of successful proposals - Implementation

1. The task content is comprehensive and convincing, as it relates credibly to the objectives.
2. Deliverables are well formulated and appropriate in number and content.
3. The distribution of resources in terms of person-months(pm) and budget is fully in line with their objectives.
4. Roles and responsibilities are well-defined and allocated, including an external advisory board with assigned roles.
5. Procedures are defined including all relevant aspects (decision making, monitoring, reporting, conflict-resolution).

ESR of successful proposals - Implementation

6. Risk management is adequately addressed, covers technical, operational and management risks, and includes suitable mitigation measures.
7. The complementarity of the participants is excellent! the consortium is composed of relevant partners from different relevant sectors, such as local authorities, Industry & technology providers. There is no unnecessary duplication of competences.
8. Allocation of tasks and resources is excellent. Resources are convincing + justified. Participants have valid roles and justified resources to fulfil tasks.
9. The proposal includes sufficient budget (5% of the total) envisaged for the research and coordination effort associated with obstacles for innovation. This is excellent. Specific tasks in the work plan will establish synergies between EU and Japan as advised in the call.

Day 2