FETFX

Funding opportunities in emerging technologies via ERA-NET

With the participation of
CHIST-ERA, FLAG-ERA and QuantERA

19th November 2020, 11.00 (CET)

Webinar Objectives

❑ The objective of the webinar is to provide up-to-date information on the content of the last ERA-NET Cofund open calls to potential applicants

❑ It will provide information on support facilities available to the applicants at the national and European levels.

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AGENDA

Introduction on opportunities in emerging technologies under the EIC Pilot [15']

➢ The EIC evolution: what do we know until now?

➢ Relevant initiatives and opportunities for Pathfinder projects

Funding Opportunities under H2020 FET ERA-NET Cofund [45']

➢ The CHIST-ERA initiative and its planned Call for Proposals

➢ The FLAG-ERA initiative and its open Call for Proposals

➢ The QuantERA initiative and its planned Call for Proposals

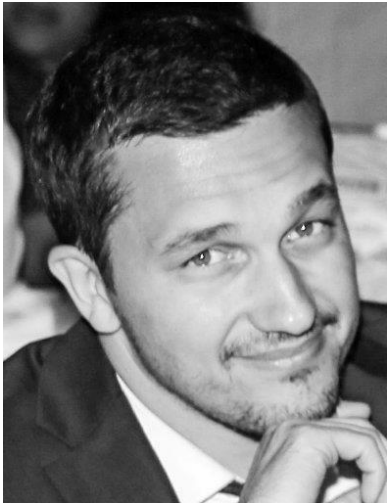➢ A QuantERA Success Story: the *ApresSF* project

Relevant initiatives available for R&I ecosystem [10']

➢ The FETFX project and what it can do for you

➢ The Access2EIC NCP Network

Q&As [20']

CHIST-ERA explained by *Mathieu Girerd*

Mr. Mathieu Girerd is working at the French National Research Agency (ANR).

He is the coordinator of the international activities of the Digital Technology and Mathematics Department and the coordinator of the European project CHIST-ERA. He acts also as the French National Contact Point for the Horizon 2020 Future and Emerging Technologies (FET) programme.

Before joining ANR, he worked at the French Embassy in Austria, in charge of promoting scientific and academic cooperation between France and Austria, and at the European Space Policy Institute as a Research Assistant. Mathieu Girerd has a background in theoretical physics and in research management.

chist-era

www.chistera.eu

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FLAG-ERA explained by *Marie-Alexandra Neouze*

FLAG-ERA

www.flagera.eu

Mrs. Marie-Alexandra Neouze (Ph.D.; Docent) is working at the Digital Technology and Mathematics Department of ANR since 2019 as an international programme officer.

Before joining ANR, she was Assistant Professor in materials sciences. She received her "Habilitation" (HDR, Docent) from the University Pierre et Marie Curie in Paris and from the Vienna University of Technology in 2011. She has directed 4 PhD students, coordinated several national Austrian projects and participated in European projects.

She is coordinating the FLAG-ERA ERA-NET.

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QuantERA explained by *Sylwia Kostka*

QUANTERA

https://quantera.eu/

Mrs. Sylwia Kostka is the Programme Coordinator of the QuantERA ERA-NET in Quantum Technologies. Sylwia develops strategic multilateral cooperation programmes at the National Science Centre, Poland (NCN), where she works as a Deputy Head of the International Cooperation Department.

She has represented the NCN in a number of ERA-NETs and JPI's, as well as in various research policy bodies incl. FET Flagships Board of Funders.

She holds Executive Master of Business Administration (MBA) from Cracow University of Technology, MA in International Cooperation and European Studies from the Jagiellonian University and MA in Development Cooperation Policy and Management from the SWPS University.

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The *ApresSF* project explained by *Łukasz Rudnicki*

Mr. Łukasz Rudnicki is a physicist working in the field of quantum information, with emphasis on quantum optics and open system dynamics.

Currently, Łukasz is a group leader at International Centre for Theory of Quantum Technologies (ICTQT) and deputy director of National Quantum Information Centre, both located in Gdańsk.

He is a coordinator of QuantERA ApresSF project and a full partner in the Stormytune EU project within FET Open. Łukasz also represents Poland in Quantum Community Network, an advisory body of the Quantum Flagship.

EIC opportunities explained by *Marta Calderaro*

Mrs. Marta Calderaro joined APRE in 2013, where she has specialised in innovation policies related to Emerging Technologies, with specific focus on ICTs.

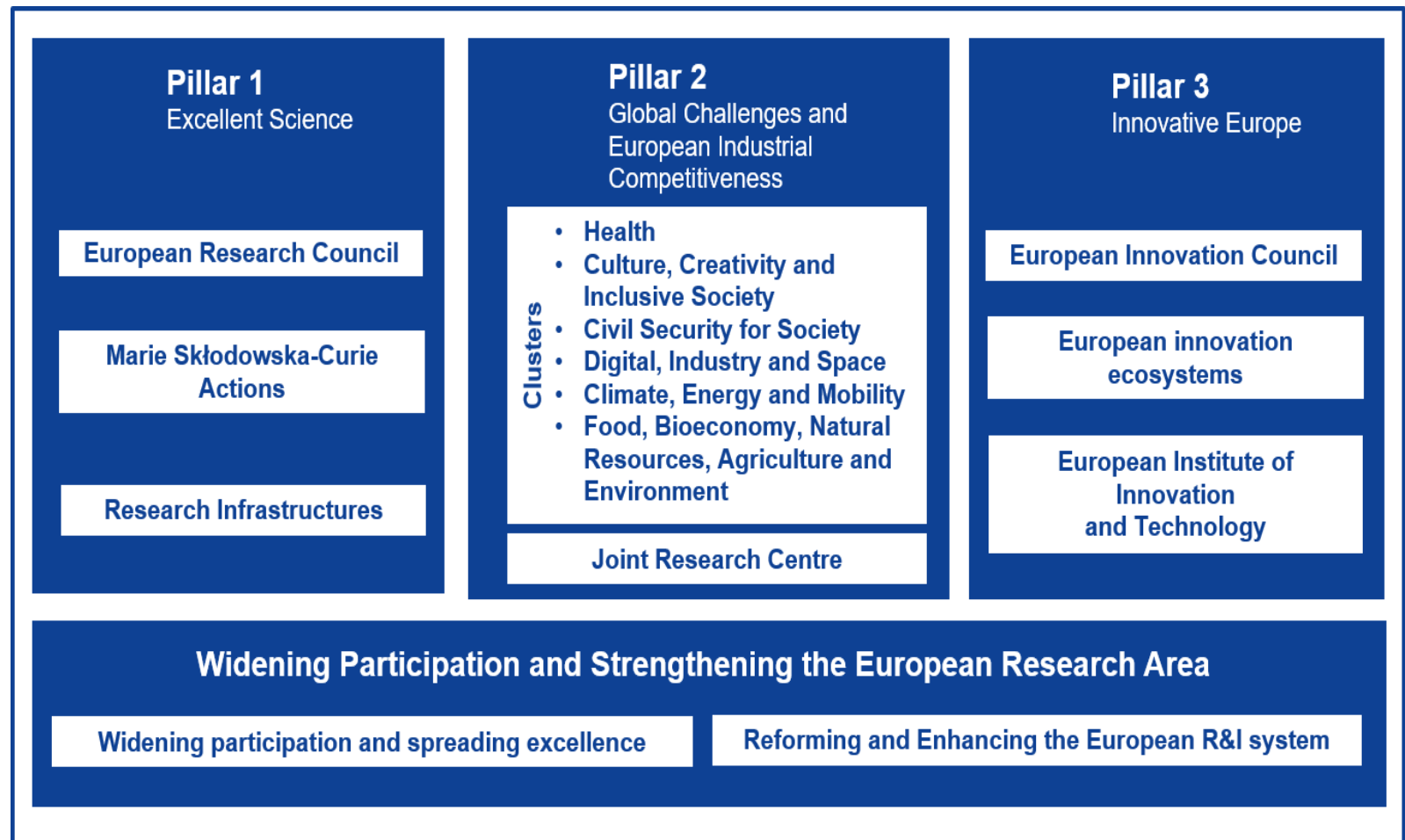Since 2015, she is appointed as H2020 National Contact Point in ICT and Future and Emerging Technologies (FET).

She is the coordinator of the FETFX project, and previously involved in the EFFECT – H2020 FET Open project, focussing on policy dialogue, communication and stakeholder engagement activities. She is also part of the Coordination Team of the Access2EIC project, the European NCP Network dedicated to the European Innovation Council.

THE EIC EVOLUTION

Horizon Europe: the € 94 billion research and innovation funding programme for seven years (2021-2027)

Pillar 1
Excellent Science

- European Research Council
- Marie Skłodowska-Curie Actions
- Research Infrastructures

Pillar 2
Global Challenges and European Industrial Competitiveness

Clusters
- Health
- Culture, Creativity and Inclusive Society
- Civil Security for Society
- Digital, Industry and Space
- Climate, Energy and Mobility
- Food, Bioeconomy, Natural Resources, Agriculture and Environment

Joint Research Centre

Pillar 3
Innovative Europe

- European Innovation Council
- European innovation ecosystems
- European Institute of Innovation and Technology

Widening Participation and Strengthening the European Research Area

- Widening participation and spreading excellence
- Reforming and Enhancing the European R&I system

Pillar 3 – INNOVATIVE EUROPE

stimulating market-creating breakthroughs and ecosystems conducive to innovation

European Innovation Council	**European innovation ecosystems**	**European Institute of Innovation and Technology (EIT)**
Support to innovations with breakthrough and market creating potential	Connecting with regional and national innovation actors	Bringing key actors (research, education and business) together around a common goal for nurturing innovation

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The European Innovation Council

One stop shop for breakthrough & disruptive innovators

Open to all innovators, in any field, at any time
Highest potential innovators selected on basis of ideas and team

Agile funding from idea to investment

Pathfinder grants for advanced research on emerging technologies
Accelerator funding for innovative start-ups (<€2.5 million grant, <€15 million equity)
Crowding in private investment (VC, Invest EU)

Building ecosystems and communities

Access to mentoring and advisory services and to knowledge partners (e.g EIT)
Expert Programme Managers to engage with projects and communities
Prizes for breakthrough technologies

EIC pilot phase in 2018- 2020

- ✓ **Increased budget** **of €1 billion** (2019) and inclusion of "FET Pro-active" in pilot EIC Pathfinder, with 6 target technologies + Transition activities

- ✓ **Recruitment of first EIC programme managers**

- ✓ **EIC Advisory Board** to present Vision for "full EIC" and roadmap for implementation

- ✓ Introduction of **interviews** with juries of experienced innovators & investors to select SMEs for funding

- ✓ "**Green Deal**" **EIC accelerator** (€300m, applications by 19 May)

- ✓ **Pilot for woman innovators** (startups with female CEO) - at least 25% at final interview phase.

- ✓ **Pilots with EIT KICs** to test collaboration mechanisms with EIC

- ✓ **Establishment of EIC Fund** and first wave of equity investments/ co-investments

European Innovation Council

Support to innovations with breakthrough and disruptive nature and scale up potential that are too risky for private investors (*70% of the budget earmarked for SMEs)*

European Innovation Council – a one-stop-shop

Helping innovators create markets of the future, leverage private finance, scale up their companies,

Innovation centric, risk taking & agile, pro-active management and follow up

Two complementary instruments bridging the gap from idea to investable project

Pathfinder: grants
(from early technology to pre- commercial)

Accelerator:
grants only & blended finance
(from pre-commercial to market & scale-up)

European Commission

Pathfinder and Accelerator
common elements in Horizon Europe

➢ Focus on breakthrough and disruptive innovations, including social, that have the potential to create new markets;

➢ Be mainly bottom-up, open to innovations from all fields of science, technology and applications in any sector;

➢ Innovations that cut across different scientific, technological (e.g. combining physical and digital) fields and sectors will be encouraged;

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Pathfinder and Accelerator
common elements in Horizon Europe

➢ They will be centred on innovators, simplifying procedures and administrative requirements, making use of interviews to help assess applications, and ensuring fast decision making;

➢ They will support high-risk innovations where the risks, whether technological/ market/regulatory, cannot be borne by the market alone or via Fin.Instr. (InvestEU)

➢ They will be managed pro-actively with milestones to gauge progress and the possibility to reorient projects where needed.

EIC Main Instruments

Pathfinder
- Open (Bottom Up: long-term vision; ambitious science-towards-technology breakthrough; High-risk/ high-gain research approach)
- Challenges (Top Down: Digital, Health and Biotech, Energy and Environment)

Transition
- Open (Bottom Up: Key Pathways: Transition to innovation, to the market or to entrepreneurship)
- Challenges (Top Down: NA)

Accelerator
- Open (Bottom Up: To scale up high impact innovations with the potential to create new markets or disrupt existing ones)
- Challenges (Top Down: European Ambitions – Digital, GD, medical techs)

Prizes
- 1. EU Prize for Women Innovators; 2. The European Capital of Innovation Awards (iCapital); 3. The European Innovation Procurement Awards; 4. The Social Innovation Award

BASS

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EIC Key Novel Elements & Concepts

EIC Programme Managers

EIC Portfolios

EIC Fund – (Accelerator)

EIC Marketplace

The proactive management

"Implementing the pro-active management of the EIC pathfinder for breakthrough technologies & innovations".

"*Programme creation*", on the conception, validation and approval process of challenge-driven programmes, including recommendations for the evaluation and selection of projects for the portfolio of a challenge-driven programme.

"*Active portfolio management*", as a decisive way to increase the probability of success of a portfolio of high-risk projects.

"*Transition activities*", focuses on how to substantially improve and accelerate the transition of a project and portfolio towards having socioeconomic impact.

European Commission

eic European
INNOVATION
Council

Implementing the
pro-active management
of the EIC pathfinder
for breakthrough
technologies &
innovations

Lessons from the
ARPA model & other
international practices

Independent
Expert
Report

Research and
Innovation

new Overseas Trade Fairs programme

new GHG neutrality programme

new EIC Scalator

Coaching

EIC Community

Corporate partnership programme

Procurement partnership programme

Investor partnership programme

Early stage programme

Research and Innovation

European Commission

EIC Innovation Training Workshop for Pathfinder 3.0

➢ Focus on potential commercialisation of EIC Pathfinder projects outcomes and maximise their value proposition.

➢ Open to EIC Pathfinder beneficiaries (FETOpen & FET-Proactive)

➢ Deadline for application: 28th November

➢ Dates: 1st - 2nd December 2020

https://community-smei.easme-web.eu/articles/open-call-eic-innovation-training-workshop-pathfinder-30-capitalize-your-innovation

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CHIST-ERA INITIATIVE

CHIST-ERA
The FET Proactive ERA-NET

FETFX Webinar

November 19, 2020

Mathieu Girerd, French National Research Agency

mathieu.girerd@anr.fr

Co-funded by
the European Union

28 research funding organisations from 24 European countries + Québec and including 12 Widening Countries willing to build a common framework

✓ Support to joint research activities

✓ Sustainable co-operation
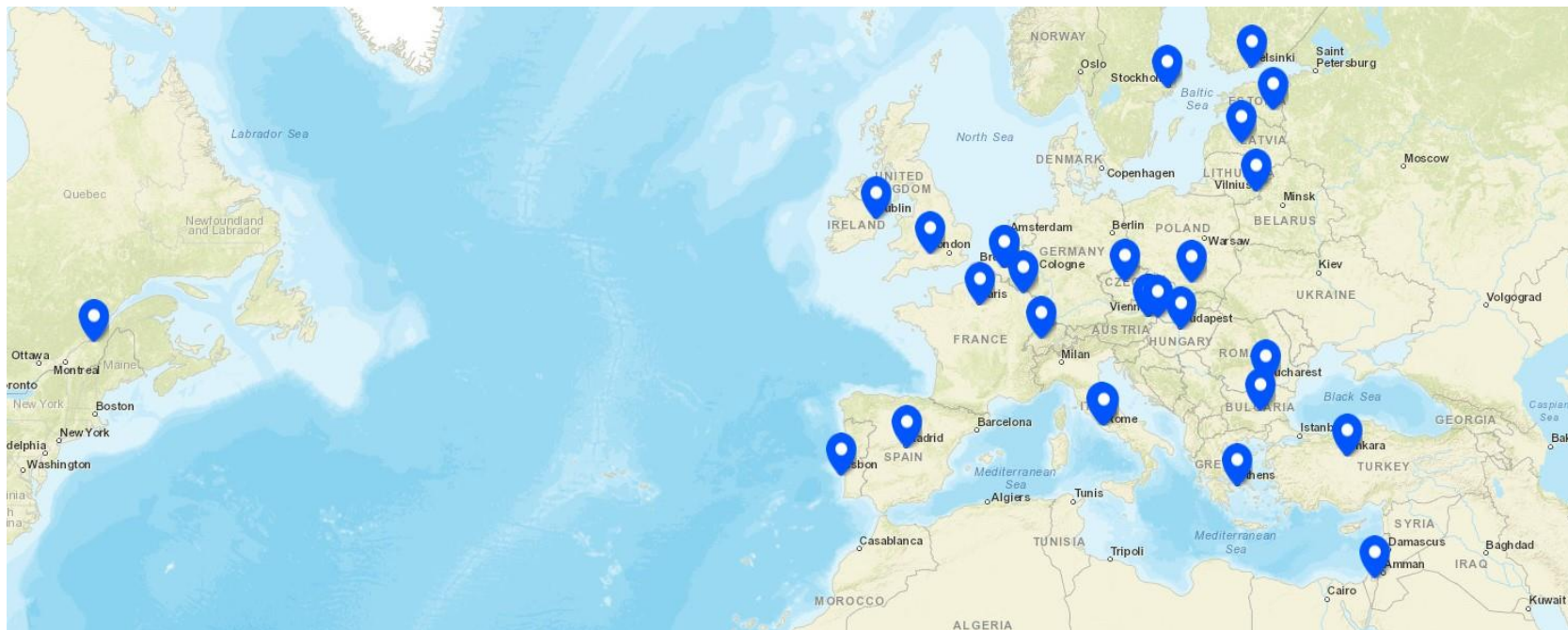
Support from the EC: ERA-NET Cofund
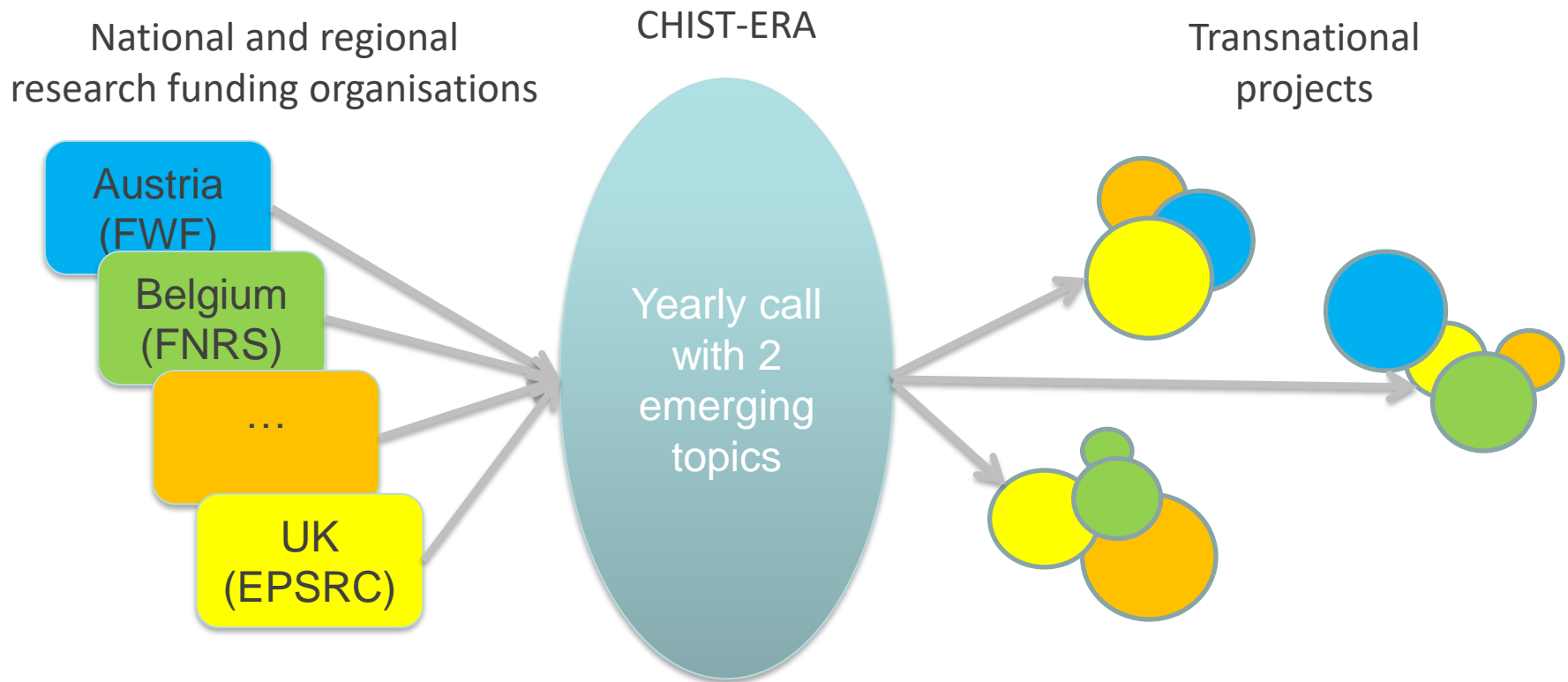
❑ CHIST-ERA is the ERA-NET of the FET Proactive programme

❑ Support to basic research for future and emerging ICT (FET-like research)

  ✓ Long term interdisciplinary research

  ✓ Risky with potential high impact

  ✓ Favour novelty

CHIST-ERA promotes
▪ Participation of the Widening Countries
▪ Open access to publications and research data

ICT & ICT-based

CHIST-ERA

Horizon 2020 FET programme

Platform for Future and Emerging ICT
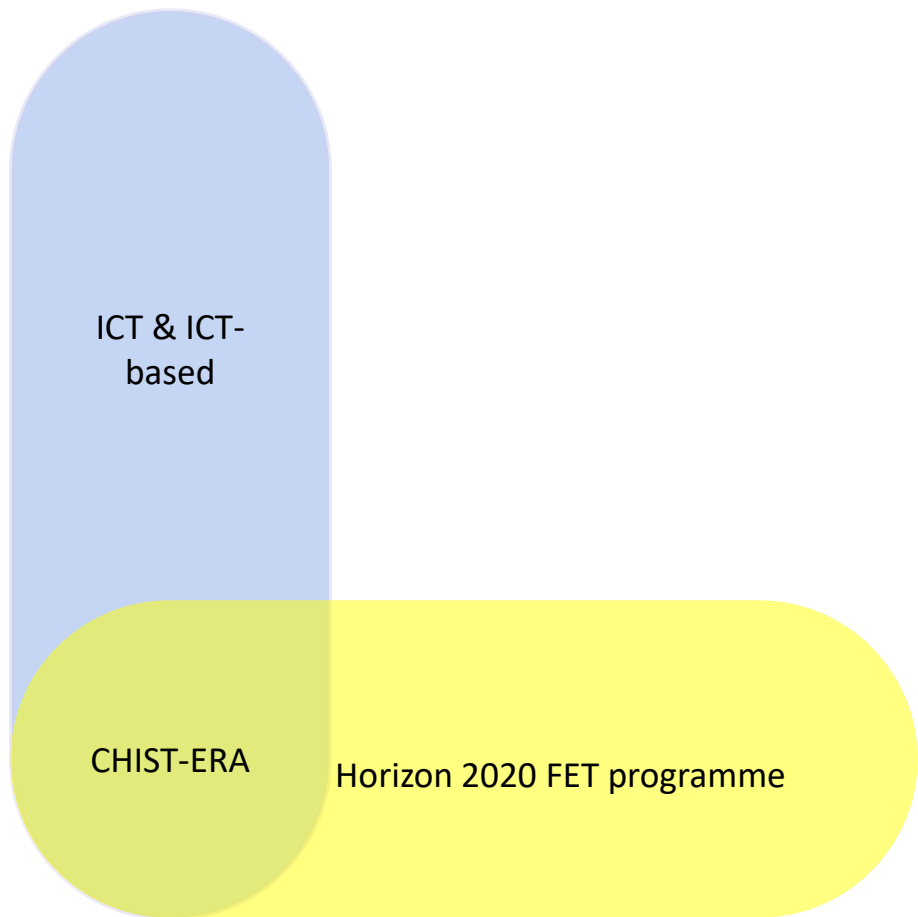
- ❑ Scope of CHIST-ERA is broad: ICT and ICT-related domains
- ❑ Two topics selected every year
  - ✓ October/November (year N): Consultation for topic ideas open to CHIST-ERA partners, Scientific Advisory Board and broader research community
  - ✓ February (year N+1): Topics selection and publication at www.chistera.eu
  - ✓ May/June: Open conference to refine the topics description
  - ✓ September/October: Call publication
- ❑ Call 2021 topics consultation open until 23/11/2020
  - ✓ https://www.chistera.eu/open-consultation-call-2021-topics

Calls Topics

Call	Topics
2020	**Advanced Brain-Computer Interactions for Novel Interactions (BCI)**
	Towards Sustainable ICT (S-ICT)
2019	Explainable Machine Learning-based Artificial Intelligence
	Novel Computational Approaches for Environmental Sustainability
2018	Analog Computing for Artificial Intelligence (ACAI)
	Smart Distribution of Computing in Dynamic Networks (SDCDN)
2017	Object recognition and manipulation by robots: Data sharing and experiment reproducibility (ORMR)
	Big data and process modelling for smart industry (BDSI)
2016	Lifelong Learning for Intelligent Systems (LLIS)
	Visual Analytics for Decision Making under Uncertainty (VADMU)
2015	User-Centric Security, Privacy and Trust in the Internet of Things (SPTIoT)
	Terahertz Band for Next-Generation Mobile Communication Systems (TMCS)
2014	Resilient Trustworthy Cyber-Physical systems (RTCPS)
	Human Language Understanding: Grounding Language Learning (HLU)
2013	Adaptive Machines in Complex Environments (AMCE)
	Heterogeneous Distributed Computing (HDC)
2012	Intelligent User Interfaces (IUI)
	Context- and Content-Adaptive Communication Networks (C3N)
2011	From Data to New Knowledge (D2K)
	Green ICT, towards Zero-Power ICT (G-ICT)
2010	Quantum Information Foundations and Technologies (QIFT)
	Beyond Autonomic Systems - the Challenge of Consciousness (BASCC)

New
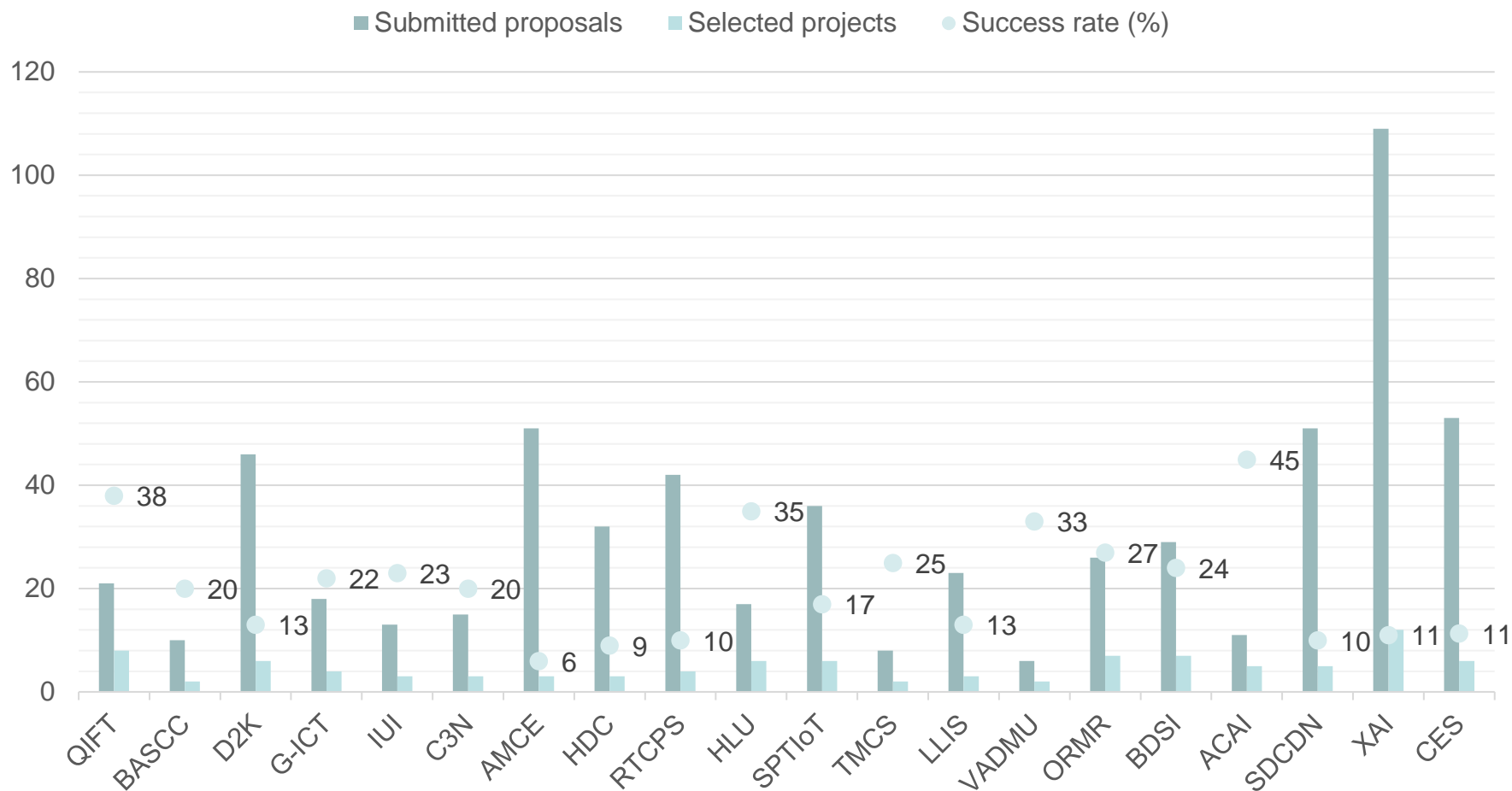
Success rate (average): 16%

New Funding Activities

- ❑ Call Open Science (open to all disciplines)
  - ✓ Topic: Research Practices and Open Research Data
    - ▪ Challenges: Structuring, accessibility, reuse, interoperability, citation, sharing and openness of research data
    - ▪ Objective: Accelerate the development of tools, standards or services to support the application of the Open Science principles to research data
  - ✓ Expected publication date: 1st semester of 2020
- ❑ Challenge Call (in ICT or ICT-related topic)
  - ✓ Call format: Call targets a focused objective, selected projects propose different approaches, their progress is assessed via evaluation campaigns
  - ✓ Open consultation for topic ideas until 23/11/2020 at https://www.chistera.eu/open-consultation-call-2021-topics
  - ✓ Expected publication date: Fall of 2021

❑ CHIST-ERA interacts with the research community in three manners. You can

  ✓ Propose call topics to CHIST-ERA

    ▪ Call 2021: https://www.chistera.eu/open-consultation-call-2021-topics

    ▪ Challenge call: https://www.chistera.eu/open-consultation-challenge-call

  ✓ Apply to a CHIST-ERA call

    ▪ Call 2020 pre-announcement expected in two weeks

  ✓ Apply as evaluator to a CHIST-ERA call

    ▪ Call 2020: https://www.chistera.eu/apply-evaluator

    ▪ Call Open Science: https://www.chistera.eu/apply-evaluator

CHIST-ERA Contacts

chistera@anr.fr

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www.chistera.eu

Thank You for your Attention!

QUANTERA INITIATIVE

FETFX Webinar
19 November 2020

Sylwia Kostka, National Science Centre (NCN)
QuantERA Programme Coordinator

QuantERA & QuantERA II: Basic information

QuantERA I

Project Information

QuantERA
Grant agreement ID: 731473

Project website ↗
Status
Ongoing project

Start date
1 November 2016

End date
31 October 2022

Funded under
H2020-EU.1.2.2.

Overall budget
€ 39 815 995,80

**EU contribution
€ 11 510 008,29**

Coordinated by
NARODOWE CENTRUM NAUKI

🇵🇱 Poland

&

QuantERA II

HORIZON 2020

Call: H2020-FETFLAG-2020-02

Type of Action: ERA-NET-Cofund

Acronym: QuantERA II

Current Phase: Grant preparation

Number: 101017733

Duration: 60 months

Start Date:

Estimated Project Cost: €45,454,561.25

Requested EU Contribution: €15,000,000.00

QuantERA Goals

- ➤ **Network** European research funders in QT

- ➤ **Fund** excellent transnational research projects in QT

- ➤ **Pool** national and EU resources through co-fund mechanism

- ➤ **Map** developments in public policies in QT Europe

- ➤ **Spread** excellence across the ERA

QuantERA Strategic Advisory Board

Alain Aspect
Institut d'Optique

Tommaso Calarco
Forschungscentrum
Jülich

Gerd Leuchs
Max Planck Society

Thorsten Schumm
Vienna University of Technology

Yehuda Naveh
IBM Research Israel

Igor Jex
Czech Technical
University in Prague

Nicolas Gisin
University of
Geneva

Marek Żukowski
Uniwersytet Gdański

Sir Peter L. Knight,
Imperial College

Stefanie Barz
University of
Stuttgart

Jiri Vala
Maynooth
University
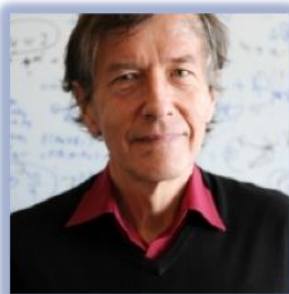
Andrew Shields
Toshiba Research
Labs Europe

QuantERA Network (2016-2022)

- Austria
- Belgium
- Bulgaria
- Croatia
- Czech Republic
- Denmark
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Israel
- Italy
- Latvia
- Netherlands
- Norway
- Poland
- Portugal
- Romania
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom
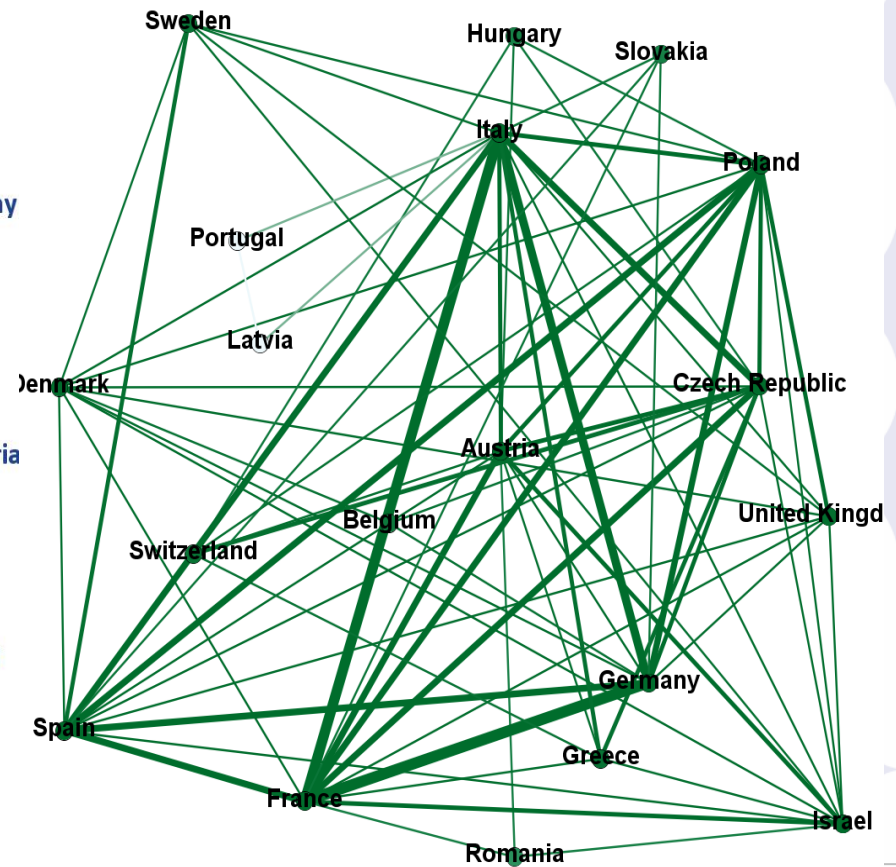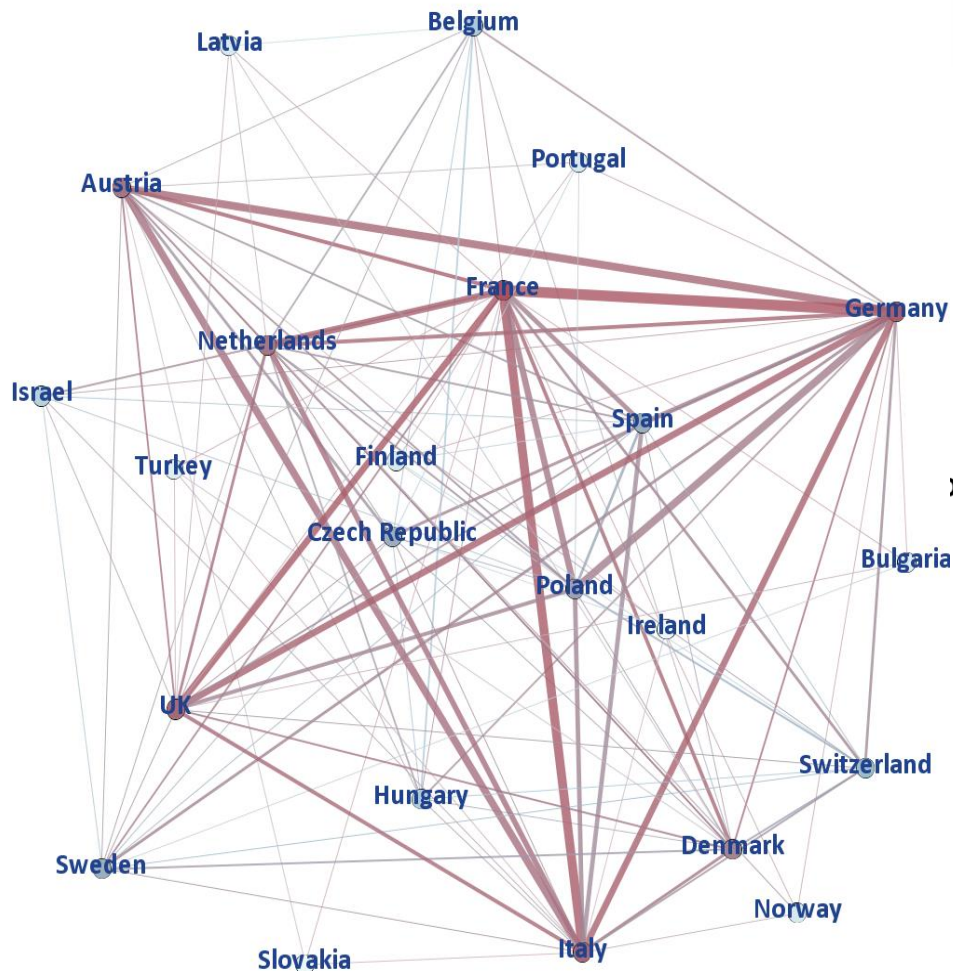
QuantERA Call 2017 Funded Projects

1. **CEBBEC**   Controlling EPR and Bell correlations in atomic Bose-Einstein condensates
2. **CUSPIDOR**   CMOS Compatible Single Photon Sources based on SiGe Quantum Dots
3. **ERyQSenS**   Entangled Rydberg matter for quantum sensing and simulations
4. **HiPhoP**   High dimensional quantum Photonic Platform
5. **HYPER-U-P-S**   Hyper-entanglement from ultra-bright photon pair sources
6. **InterPol**   Polariton lattices: a solid-state platform for quantum simulations of correlated and topological states
7. **MICROSENS**   Microwave quantum sensing with diamond color centers
8. **NanoSpin**   Spin-based nanolytics – Turning today's quantum technology research frontier into tomorrow's diagnostic devices
9. **NAQUAS**   Non-equilibrium dynamics in Atomic systems for QUantum Simulation
10. **ORQUID**   ORganic QUantum Integrated Devices
11. **Q_Magine**   Scalable Electrically Readout Diamond Spin Qubit Technology for Single Molecule Quantum Imagers

QuantERA Call 2017 Funded Projects

12. **QCDA**	Quantum Code Design and Architectures
13. **Q-Clocks**	Cavity-Enhanced Quantum Optical Clocks
14. **QTFLAG**	Quantum Technologies For LAttice Gauge theories
15. **QuantAlgo**	Quantum algorithms and applications
16. **QUANTOX**	QUANtum Technologies with 2D-Oxides
17. **QuaSeRT**	Optomechanical quantum sensors at room temperature
18. **QuompleX**	Quantum Information Processing with Complex Media
19. **RouTe**	Towards Room Temperature Quantum Technologies
20. **Si QuBus**	Long-range quantum bus for electron spin qubits in silicon
21. **SQUARE**	Silicon Photonics for Quantum Fibre Networks
22. **SUMO**	Scaling Up quantum computation with MOlecular spins
23. **SuperTop**	Topologically protected states in double nanowire superconductor hybrids
24. **TAOIL**	Trapped Atom Interferometers in Optical Lattices
25. **TheBlinQC**	Theory Blind Quantum Control
26. **Topoquant**	2D hybrid materials as a platform for topological quantum computing.

QuantERA Call 2019 Funded Projects

1. **ApresSF**   Application-ready superresolution in space and frequency
2. **C'MON-QSENS!** Continuously Monitored Quantum Sensors: Smart Tools and Applications
3. **eDICT**   Experimentally-oriented Device Independent CrypTography
4. **MAQS**   Magnetic-Atom Quantum Simulator
5. **PACE-IN**   Photon-Atom Cooperative Effects at Interfaces
6. **Qu3D**   Quantum 3D imaging at high speed and high resolution
7. **QuantHEP**   Quantum Computing Solutions for High-Energy Physics
8. **QuCoS**   Quantum Computation with Schrödinger cat states
9. **QuICHE**   Quantum information and communication with high-dimensional encoding
10. **SECRET**   SECuRe quantum communication based on Energy-Time/time-bin entanglement
11. **ShoQC**   Short-Range Optical Quantum Connections
12. **SiUCs**   Superinductor-based Quantum Technologies with Ultrastrong Couplings

Contact your respective Research Funding Organisation

☺

What's next?

QuantERA II (*In statu nascendi)

QuantERA II will start in January 2021

➢ The next QuantERA Co-funded Call is planned to be launched in **March 2021**

➢ The Call pre-announcement will be available in **January 2021**

Additional activities:

- Exploring the possibility of **additional joint funding** activities

- Cooperation with QT Flagship and other stakeholders in QT

- Spreading research excellence across ERA

- Mapping of public policies in QT research funding

QuantERA II Network (2021-2026)

- **Austria** (FFG, FWF)
- **Belgium** (FNRS, FWO)
- **Bulgaria** (BNSF)
- **Croatia** (HRZZ)
- **Czechia** (MEYS, TACR)
- **Denmark** (IFD)
- **Estonia** (ETAg)
- **Finland** (AKA)
- **France** (ANR)
- **Germany** (BMBF, DFG, VDI)
- **Greece** (GSRT)
- **Hungary** (NKFIH)
- **Ireland** (SFI)
- **Israel** (Innovate Auth.)
- **Italy** (CNR, INFN,MUR)
- **Latvia** (VIAA)

- **Lithuania** (LMT)
- **Luxembourg** (FNR)
- **Malta** (MFIN)
- **Norway** (RCN)
- **Poland** (NCBR, NCN)
- **Portugal** (FCT)
- **Romania** (UEFISCDI)
- **Slovakia** (SAS)
- **Slovenia** (MIZS)
- **Spain** (AEI)
- **Sweden** (VR)
- **Switzerland** (SNSF)
- **Turkey** (TUBITAK)
- **United Kingdom** (UKRI)
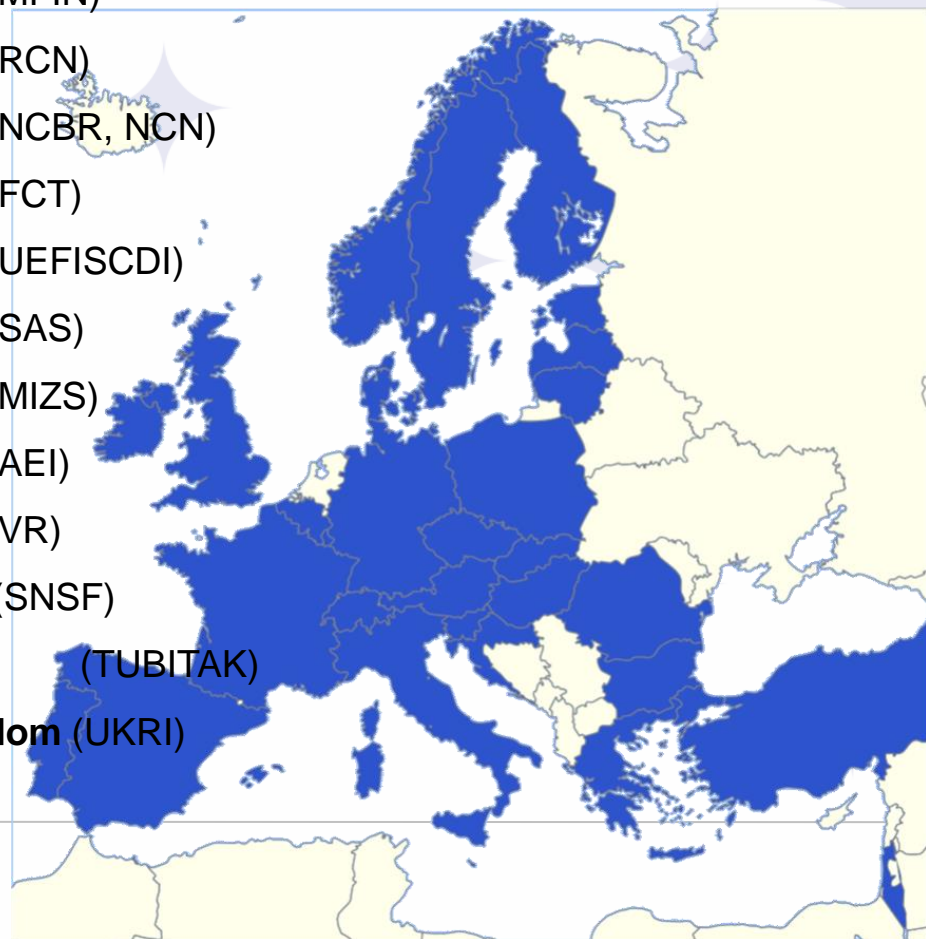
FLAG-ERA INITIATIVE

FLAG-ERA

The ERA-Net for supporting the FET Flagships

www.flagera.eu

Coordination: marie-alexandra.neouze@anr.fr

Supported by the European Commission

Transnational calls
Scope: supporting Flagships

*) JTC 2015, 2017 & 2019 supporting Graphene Flagship and HBP

Topics defined with the funding agencies & Flagships

Graphene Basic and Applied Research
HBP computing neuroscience

*) JTC 2016 for Flagship Pilot projects

Transnational calls Graphene & HBP
Outreach

67 funded projects
Representing **309 participants**

27% success rate

20 countries with funded projects
From which **8 widening countries**

Effective budget **42,5 M€**

Participating countries overall

- Countries with selected projects
- Widening countries with selected projects
- Widening countries without selected projects
- Countries with no selected projects
- Participating country on own funds
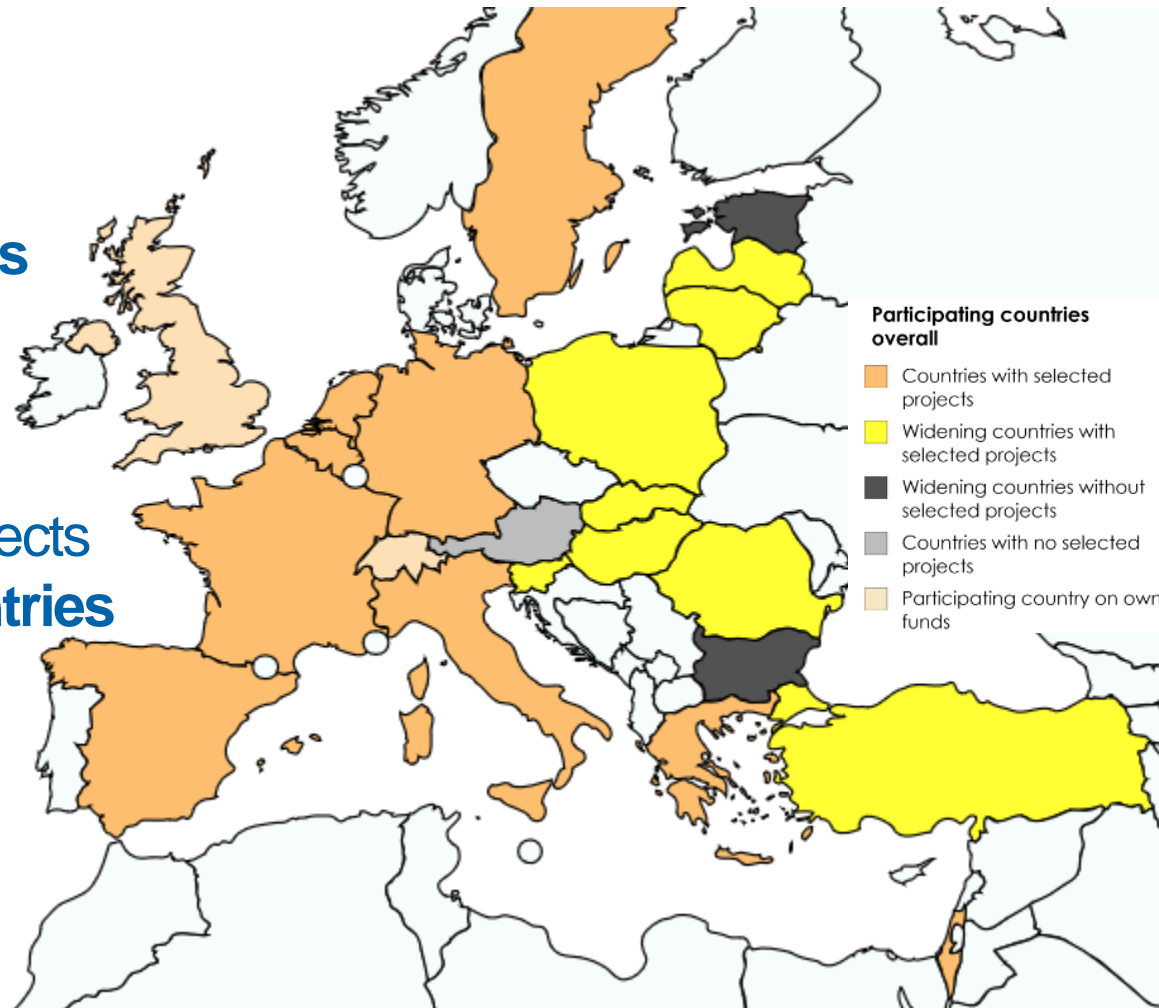
Transnational calls Graphene & HBP
Statistics

Funded projects	JTC 2015	JTC 2017	**JTC 2019**
Graphene Basic Research		12	9
Graphene Applied R&I	13	5	7
Human Brain Project	6	6	9
Overall	19	23	25
Success rate	**18%**	**34%**	**30%**

JTC 2015
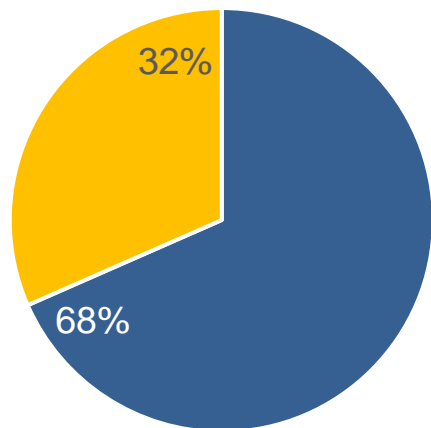
JTC 2017
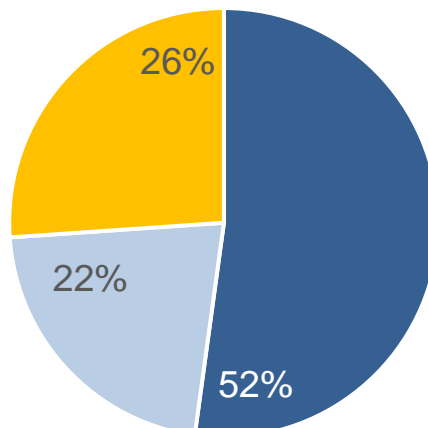
JTC 2019
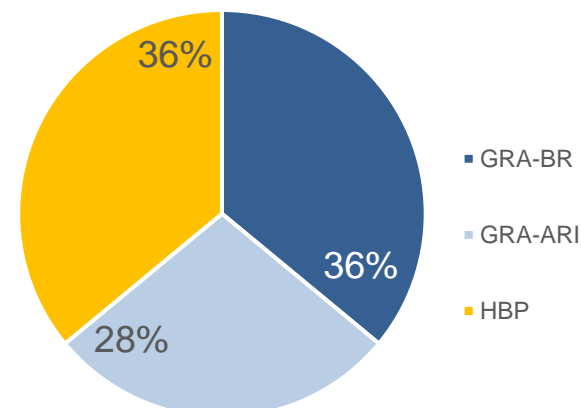
- GRA-BR
- GRA-ARI
- HBP

JTC 2021

15 countries
18 funding agencies

Supported by the European Commission
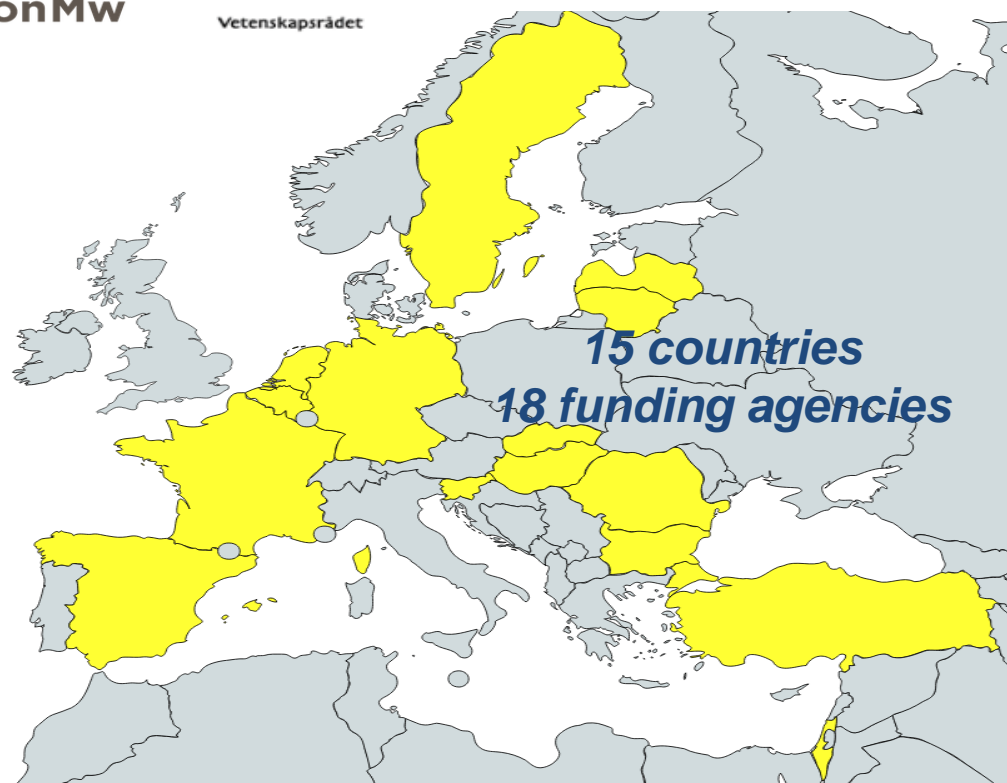
JTC 2021
Eligibility criteria

- Consortia must be **international**. They must involve at least:

  - 3 partners requesting funding from 3 participating countries, or
  - 2 partners requesting funding from 2 participating countries and a partner from another country securing its own funding as a Flagship Core Project partner.

- Consortia must be **balanced**:

  - The maximum requested funding allowed per country in a proposal is 60% of the total requested funding of the proposal,
  - if only partners from 2 countries apply for funding, in which case this figure is raised to 75%.

! 1 step procedure !

JTC 2021

	Country	Funding agency	Graphene Basic	Graphene Applied	HBP
BE	Belgium	FNRS	■ (yellow)	■ (gray)	■ (yellow)
BE	Belgium	FWO	■ (yellow)	■ (yellow)	■ (yellow)
BG	Bulgaria	BNSF	■ (yellow)	■ (yellow)	■ (yellow)
DE	Germany	DFG	■ (yellow)	■ (gray)	■ (gray)
ES	Spain	AEI	■ (yellow)	■ (yellow)	■ (yellow)
ES	Spain (Asturias)	IDEPA	■ (yellow)	■ (yellow)	■ (gray)
ES	Spain	ISCIII	■ (gray)	■ (gray)	■ (yellow)
FR	France	ANR	■ (yellow)	■ (yellow)	■ (yellow)
HU	Hungary	NKFIH	■ (yellow)	■ (yellow)	■ (yellow)
IL	Israël	Innovation Authority	■ (yellow)	■ (yellow)	■ (yellow)
LT	Lithuania	LMT	■ (yellow)	■ (yellow)	■ (yellow)
LV	Latvia	VIAA	■ (yellow)	■ (yellow)	■ (yellow)
NL	Netherlands	ZonMW	■ (gray)	■ (gray)	■ (yellow)
RO	Romania	UEFISCDI	■ (gray)	■ (yellow)	■ (yellow)
SE	Sweden	VR	■ (yellow)	■ (gray)	■ (gray)
SI	Slovenia	MIZS	■ (yellow)	■ (yellow)	■ (yellow)
SK	Slovakia	SAS	■ (yellow)	■ (yellow)	■ (yellow)
TR	Turkey	TUBITAK	■ (yellow)	■ (yellow)	■ (yellow)

JTC 2021
Graphene Basic Research dedicated sub-call

- Layered magnetic materials and heterostructures
- Growth and device integration of two-dimension amorphous material
- Scalable growth & device integration of ultralow power spin-orbit memories based on GRMs
- Bacterial degradation of GRMs
- GRM based devices and circuits for neuromorphic computing
- Infrared+THz emission and detection with twisted GRMs
- Functionalized GRMs for advanced multivalent metal-ion batteries (MMIBs)
- Chemical sensing with GRMs
- Mxene foams for capacitive deionization water desalination
- Rheological models for GRM suspensions and multiphase flows

JTC 2021
Graphene Applied Research and Innovation dedicated sub-call

- Antiviral protection with GRM-based foams and coatings
- GRM-based neural interfaces for bioelectronics medicines
- GRM-based spectrometer for visible and infrared
- GRM-based, ultra-broadband THz-transceiver technologies for 6G compliant wireless communication
- Tuning the hot-carrier lifetime in layered materials heterostructures for photoresponsivity enhancement
- GRMs for advanced metal-ion supercapacitors
- GRM-based electrodes for redox flow batteries
- GRM components for self-charging and self-powered electronics

Supported by the European Commission

Human Brain Project dedicated sub-call

The projects should propose **holistic approaches combining computer sciences and neurosciences** to address at least one of the following aims:

- **Studying genotype-phenotype relationships related to brain function.** projects dealing with anatomical as well as functional phenotypes in animal models as well as in large human cohorts are eligible.

- **Tackling psychiatric diseases.** Research projects developing diagnostic, patients stratification or treatment strategies for Psychiatric Diseases by combining diverse types of clinical data as well as data covering social aspects of these diseases including subjective well-being are eligible.

- **Accelerating the diagnosis and the development of therapeutic approaches for rare diseases affecting the nervous system.** Clinical and preclinical proposals making use of available medical or preclinical datasets for or simulation studies are eligible.

The projects falling within the scientific scope of this call for proposals are invited to consider using the following EBRAINS resources (https://ebrains.eu)

A SUCCESS STORY

APRESF PROJECT

UNIWERSYTET GDAŃSKI

IN MARI VIA TUA

INTERNATIONAL CENTRE FOR THEORY OF QUANTUM TECHNOLOGIES

Łukasz Rudnicki

European Funds
Smart Growth

Republic of Poland

FNP Foundation for Polish Science

European Union
European Regional Development Fund

Application-ready superresolution in space and frequency

ApresSF CONSORTIUM:

- Coordinator: Łukasz Rudnicki (University of Gdańsk, PL)
- Christine Silberhorn (University of Paderborn, DE)
- Zdeněk Hradil (Palacky University, CZ)
- Luis Lorenzo Sanchez-Soto (Universidad Complutense, ES)
- Nicolas Treps (Sorbonne Université, FR)
- Cailabs (FR)
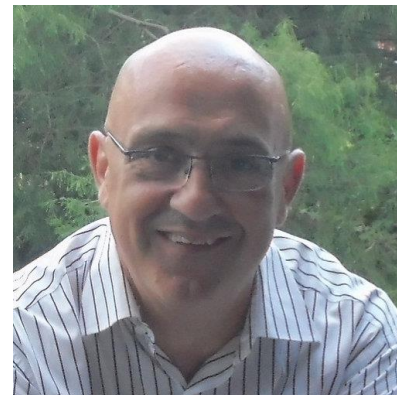
Diffraction limit
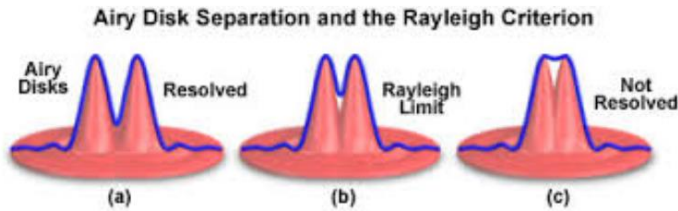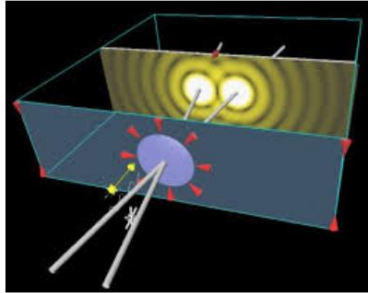
Resolution as an estimation problem
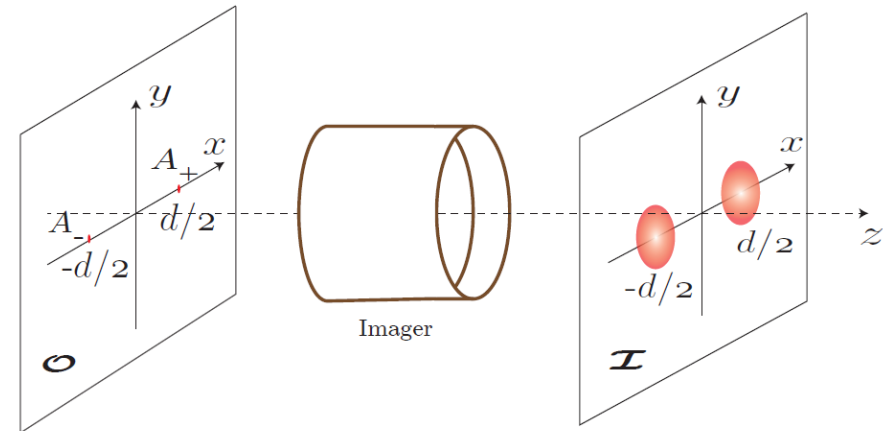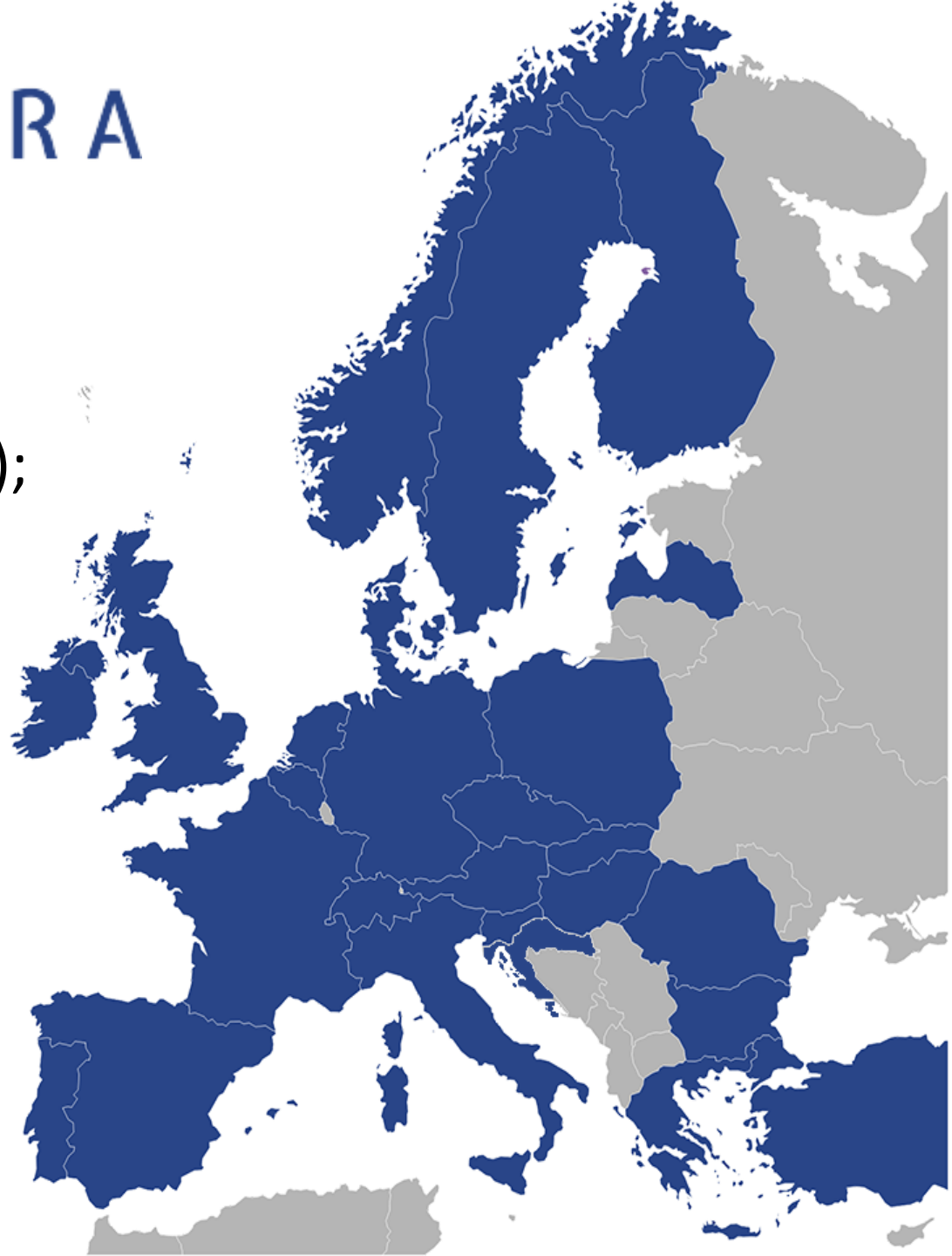
The take-home message

Successful projects are solid and **focused**

THE ACCESS2EIC PROJECT

Access2EIC the EIC and A2RF NCP network

How can we help you to access the EIC?

November 2020

National structures recognized by the EU that:

Raise **awareness** on H2020 opportunities

Organize **training** sessions

Offer assistance on **proposal writing**

Support in **partner search** (when relevant)

Across the different H2020 parts.

There are 22 official functions per country in:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/support/ncp

Transnational CSA project awarded to 15 NCPs host organizations (on behalf of the entire EIC & A2RF NCP networks) to:

- **Identify and share good practices** in how to support applicants to access the EIC and A2RF programmes in H2020

- **Develop together useful tools for participants** that may simplify their access to EIC Pilot calls

- **Organize and deliver training** for the whole EIC & A2RF NCP networks community in relevant areas

Participant No	Participant organisation name	Country
1 (Coordinator)	APRE	Italy
2	CDTI	Spain
3	FFG	Austria
4	IPPT PAN	Poland
5	IIA	Israel
6	DLR	Germany
7	INNOVATION NORWAY	Norway
8	BPIFRANCE	France
9	FORTH	Greece
10	ENTERPRISE IRELAND	Ireland
11	ANI	Portugal
12	GIS TF	Bulgaria
13	CVTISR	Slovakia
14	NKFIH	Hungary
15	TC CAS	Czech Republic

15 PARTNERS

+

ASSOCIATED PARTNERS

(all FET, SME & ARF NCPs)

EIC Pathfinder Factsheet (Q2 2020)

EIC T2I Factsheet Q1 2021

EIC Accelerator Annotated template

EIC Accelerator Annotated pitchdeck

InnovFIN & InvestEU guide

| TRL1-TRL3 | TRL4- TRL5 | TRL6-TRL8 | TRL9 |

| EIC Pathfinder | EIC T2I | EIC Accelerator (blended finance) | InnovFIN InvestEU |

Grant

Grant + equity

Financial instruments

| MRL0-MRL1 | MRL2-MRL3 | MRL4 – MRL6 | MRL7-MRL8 | MRL9 |

Toolbox for R&D based businesses

SME Toolbox

Due diligence dashboard Annotated Annex IV (Q4 2020)

The Access2EIC Pathfinder guide
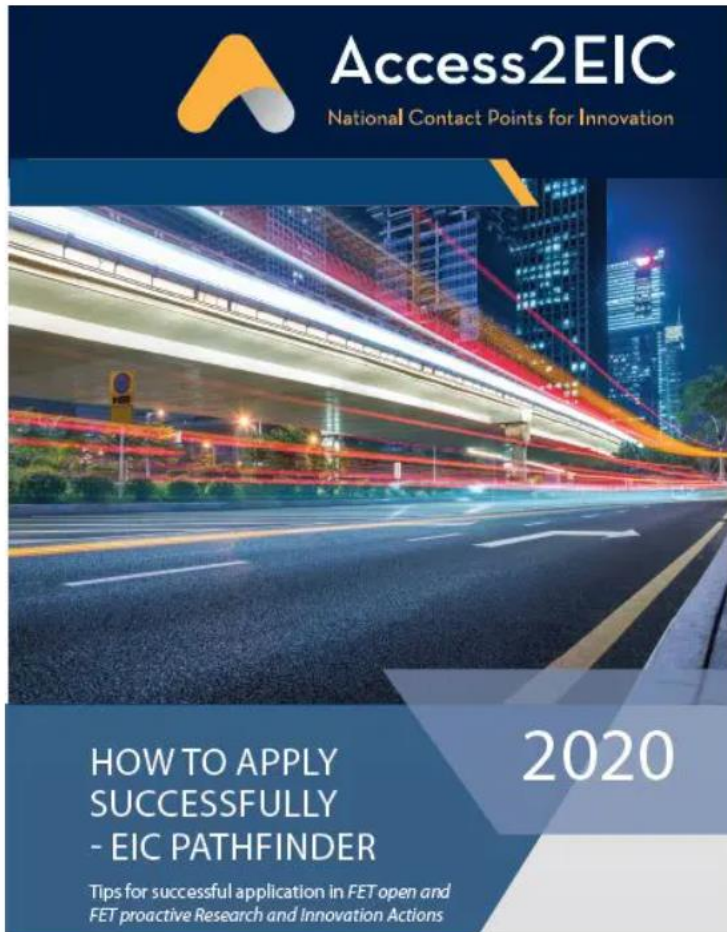
- The Access2EIC **Tips for successful application – EIC Pathfinder** is a guide created to assist organizations who are looking to submit a proposal to the **EIC Pathfinder FET Open and Proactive** calls in 2020, and receive useful information and tips for the application.

- The guide will identify key characteristics and patterns of FET Open und FET Proactive projects and help applicants better understand the requirements and qualifications and thus succeed in receiving the grant. The guide should be useful for any consortia gathering for a joint submission of the EIC Pathfinder FET proposal.

Access2EIC tools: From technology to business

Focus on **businesses coming out from research** (FET experienced) in order to help to frame better their way to market.

Three tools developed as part of this toolset:

- The **business glossary**, that defines the key business concepts in a number of dimensions (based on the Business Model Canvas frame) according to the different matureness levels of a business.
- The "**TB.map tool**" that helps to map the competitive landscape in terms of TRL (technology readiness level) and BRL (Business readiness level)
- The "**Bsize tool**" that helps to estimate the potential size of a business opportunity in a given market.

How to apply successfully
EIC Accelerator
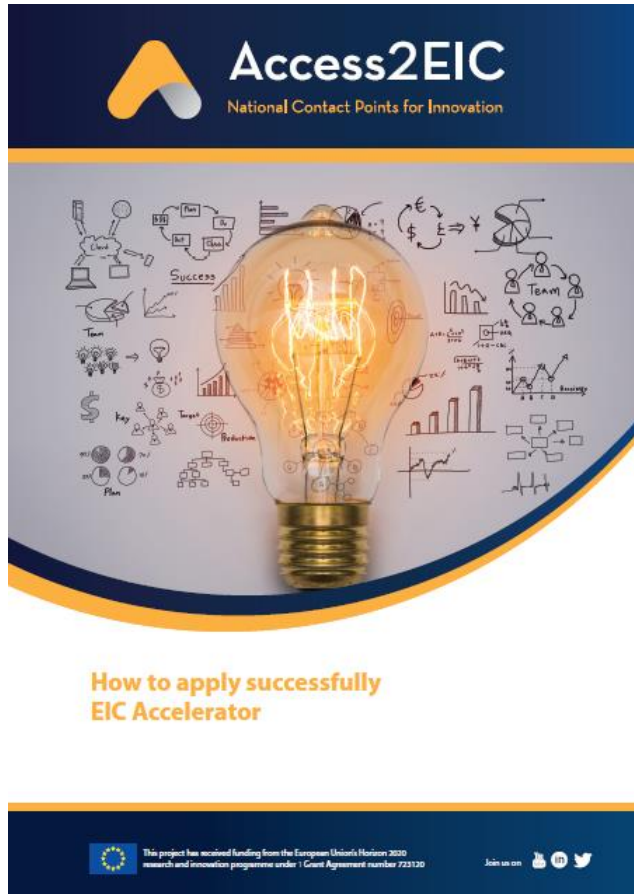
The EIC Accelerator Annotated template

- Official updated template.

- New evaluation criteria included.

- Comments from evaluators

- Recommendations from NCPs.

Based on remote evaluators, winning SME and start ups proposals and NCPs experiences

Training
- Onsite Training for NCPs
- Online Training for NCPs and participants
- Cousera selection for horizontal training

Pitching to investors
- For "Seal of Excellence" holders only
- Periodic e-pitches through Euroquity
- Pitch contest back to back to EU events

Events
- Online webinars on EIC with the COM
- Onsite events on EIC issues with the COM
- Accesible via: https://access2eic.eu/eventi/

Useful links

- **EIC Wizard** via **EIC website**

- **EIC Work Programme 2020** and **EIC FAQ**

- **National Contact Points (NCPs)**

- **Access2EIC NCP Network**

- **F&T Portal Partner Search**

- **List of all NCP networks' Partner Search tools**

- **Enterprise Europe Network**

Follow A2EIC on

@Access2EIC

Access2EIC

Access2EIC

THE FETFX PROJECT

About FETFX

FET-Open Coordination and Support Action on *FET communication and outreach*

From 01/01/2019 to 30/06/2021

FETFX Objectives

Communicate FET & EIC

Enhance visibility and impact of FET research among a variety of actors – researchers, policy makers, investors, the general public - via **public communication** and **a mix of tools and media**

Engage with FET & EIC

Stimulate debate and collaboration among multiple stakeholders through dedicated community building and **engagement activities** – workshops for policy makers, major events and initiatives such as Journalist in the Lab, Future Tech Week, FETFX Pills, webinars and furthermore...

Free of charge

EFFECT Project Baseline

Online engagement: more than 250,000 people reached and more than 23,000 online users engaged

Offline engagement: More than 200 individuals participating in EFFECT events

FET R&I community: EFFECT reached 86 FET funded projects
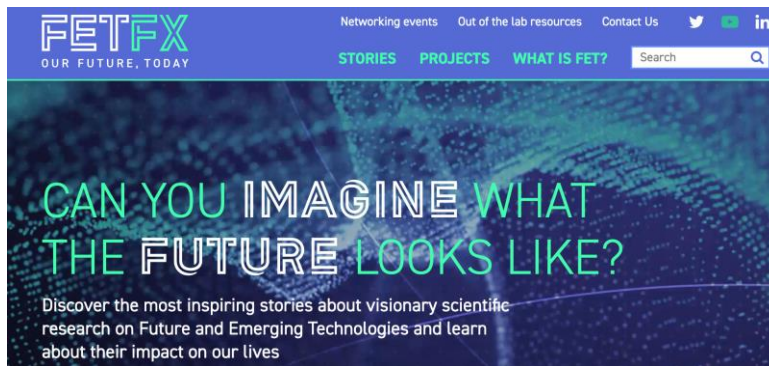
FETFX Approach
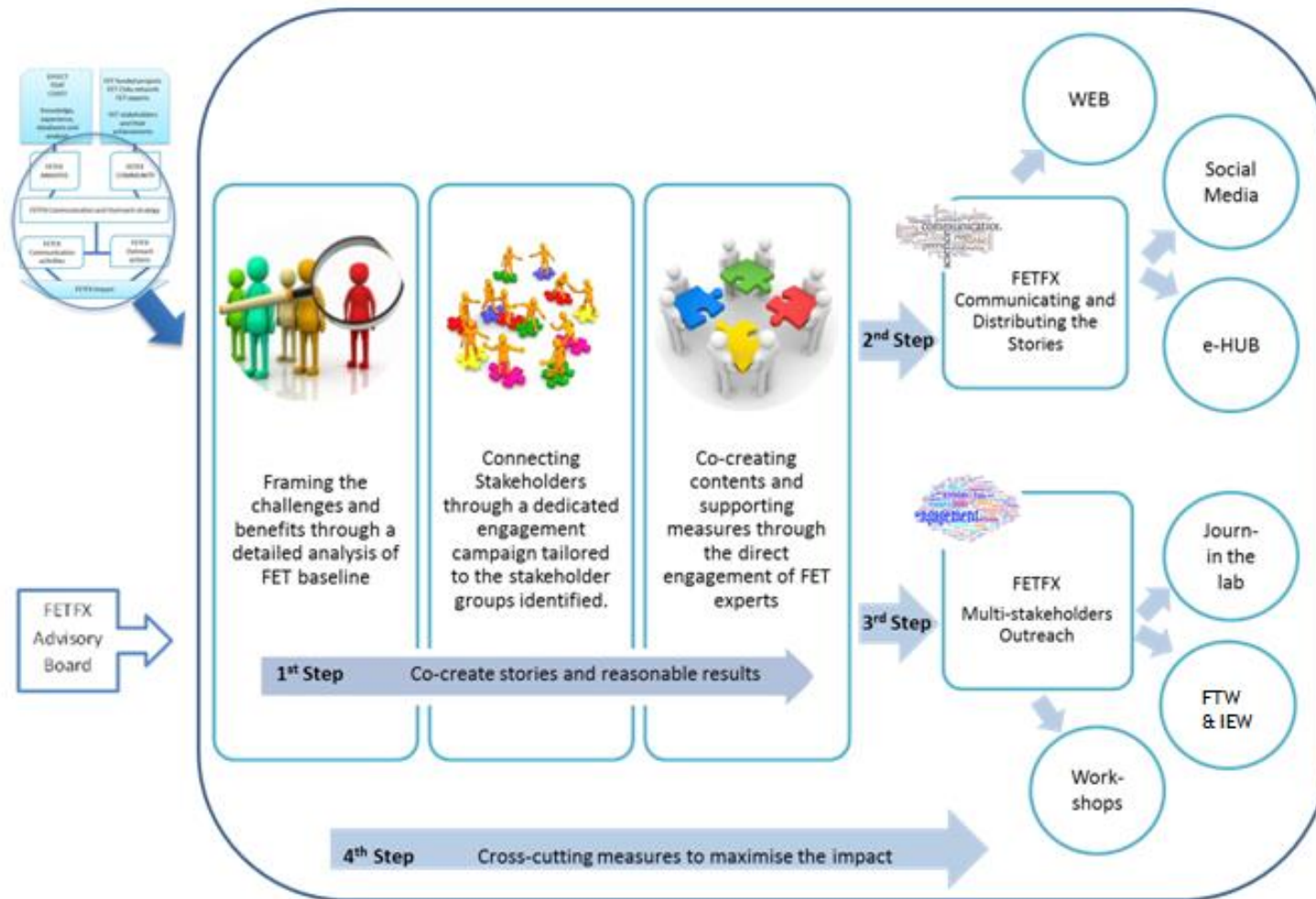
Transition to EIC Pathfinder

Dedicated Editorial Production

Support on Key messages identified in EC communication channels (e.g. EIC dedicated webpage)

Connection among Pathfinder and Accelerator stakeholders

FET People

Orestis Georgiou on the involvement of SMEs and start-ups

"Not all SMEs and start-ups can disrupt the market fast enough"

ORESTIS GEORGIOU
Director of Research
Ultrahaptics, Bristol, UK

An inclusive Information Hub

FETFX contents

FET project news

Events

News on the programme

EIC dedicated production

FETFX Booklet

FETFX Events

FETFX Pills

Future Tech Week Keynote:
From FET to EIC: A Star in the Making

Presenter:

Jerzy M. Langer
- Member of the **European Innovation Council Pilot Advisory Board**
- Physicist, **Emeritus Professor** at the Institute of Physics of the Polish Academy of Sciences
- Former Chair, **FET Advisory Group**

FETFX News

Proactive support to the consolidation of a new technological direction

The FET Proactive aim is to explore and consolidate a new technological direction thankful to interdisciplinary communities and a European innovation eco-system, well beyond the world of research alone.

May, 26th 2020 --OPEN CALLS

Updated H2020 WP on EIC Pilot

An updated version of the Horizon 2020 Work Programme on European Innovation Council - EIC Pilot has been published last 2nd March 2020.

May, 5th 2020 --OPEN CALLS

European financial support for the next technologies of our future

Radical vision, technological breakthrough and ambitious interdisciplinary research are the gatekeepers capable to turn excellence science in radically new technologies.

March, 5th 2020 --OPEN CALLS

FETFX Resources

FET Innovation Launchpad funded projects

List of FET Innovation Launchpad funded projects from the Funding and Tender Portal as updated on 13th July 2020

GUIDES, DISSEMINATION MATERIALS // Researchers, Innovators/investors // July, 13th 2020

FET Innovation Lauchpad presentation

Dedicated presentation of the FET Innovation Launchpad funding scheme.

GUIDES, EVENT PROCEEDINGS, DISSEMINATION MATERIALS // Researchers, Innovators/investors // July, 13th 2020

A Vision and Roadmap for Impact

Independent report on the European Innovation Council under Horizon Europe by the EIC pilot Advisory Board - June 2020

REPORTS // Researchers, Innovators/investors, Policy makers // June, 30th 2020

"How to apply successfully – EIC Pathfinder FET Open and FET Proactive" Guide

The Guide, written by Access2EIC NCP Network, present a useful checklist for the upcoming FET Open and FET Proactive Call under the EIC Pathfinder Pilot.

GUIDES // Researchers, Innovators/investors // May, 26th 2020

Updated Horizon 2020 Work Programme European Innovation Council – EIC Pilot

An updated version of the Horizon 2020 Work Programme on European Innovation Council - EIC Pilot has been published last 2nd March 2020, and adopted last 30th April, 2020.

REPORTS, GUIDES // Researchers, Innovators/investors // April, 30th 2020

The FETFX communication hub

// Today's featured stories

FET People

How can visionary science bring innovation into society?

CULTURE & SOCIETY

Nine Future and Emerging Technologies experts from the academia, the industry and the government answer the big question raised during the Innovative Enterprise Week Bucharest.

FET PROJECTS

Hi-tech and high-risk, FET research goes beyond what we know. Breaking down boundaries and developing fresh-thinking, to revolutionise the way we live our lives. Europe's passionate about it and supports brilliant researchers with the resources they need.

// Browse funded research projects

FILTER BY THEME

- Artificial intelligence & IT
- Biotech & Health
- Culture & Society
- Energy & Environment
- Nanotech & Materials

FILTER BY RESULT

- Innovation Radar winner
- Registered patents
- Prototyping phase
- Start-up/spin-off launched

ABIOMATER

Building the next class of metamaterials that will address the present issues in our medical devices and implants

NANOTECH & MATERIALS

AMECRYS

Cutting time and operation costs of biopharmaceuticals by revolutionising their manufacturing process

BIOTECH & HEALTH

ASSISIbf

Finding new ways to protect endangered species and the environment by integrating artificial intelligence-based robotic animals

**ARTIFICIAL INTELLIGENCE & IT
ENERGY & ENVIRONMENT**

AMADEUS

Creating a new set of hybrid photovoltaic devices which are able to meet the ultra-high temperature capacity operated in latent heat thermal storage (LHTES)

NANOTECH & MATERIALS

ARTIMATTER

Creating thin layers of graphene as building blocks for new types of materials

NANOTECH & MATERIALS

Brain Bow

Restoring neuronal connections of patients that suffered brain damage due to accidents or strokes

BIOTECH & HEALTH

FET KNOWLEDGE HUB

Gain access to every piece of information regarding FET as you browse through our collection of resources produced, collected and curated by FETFX.

// Browse all FET resources

,,

FILTER BY TYPE

- ◯ Reports
- ◯ Guides
- ◯ Event proceedings
- ◯ Dissemination materials
- ◯ Data sets

,,

FILTER BY TARGET AUDIENCE

- ◯ Researchers
- ◯ Innovators/investors
- ◯ Policy makers

100 Radical Innovation Breakthroughs for the future

How do we see European innovation in the near future? This report gives you a broad idea on what to expect via 100 radical innovation breakthroughs.

REPORTS // Researchers, Innovators/investors, Policy makers // August, 6th 2019

Governing Missions: Governing Missions in the European Union

Mariana Mazzucato lists down 17 recommendations the European Commission must embrace to ensure the success of Horizon Europe's research missions.

GUIDES // Researchers, Innovators/investors, Policy makers // July, 15th 2019

Mission-oriented research and innovation policy – A RISE perspective

In this report, RISE, or the independent Research Innovation and Science Expert high-level group, wrote how mission-oriented Research and Innovation policy can work at a European level.

GUIDES // Researchers, Policy makers // June, 28th 2019

The FETFX support...

CALL FOR FETFX EDITORIALS

FETFX is now accepting
regarding FET projects'
the market and news rela
and

bimonthly publication
info@fetfx.eu

CSAs supporting FET R&I community

Establishing a FET Observatory for early trends, project building and social responsibility

www.prefet.eu

Supporting FET Projects to increase their influence and impact among society

www.fetfx.eu

Identifying FET innovation opportunities and accessing respective markets

www.fetbriefing.eu

Your NCP for Innovation under European Innovation Council
www.access2eic.eu

National Contact Points for Horizon 2020
https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/support/ncp

Follow us...

🌐 www.fetfx.eu

🐦 @FETFX_EU

in company/fetfx/

✉ Info@fetfx.eu

FETFX

Thank you!