

HEU Cluster 5: Waterborne partnership

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Types of European funding opportunities

Traditional Horizon Calls

- Collaborative projects for consortia from EU countries
- Clusters (5. Climate, energy, mobility)
- Call text describes in detail what kind of research and results can get funded
- Good funding rates and grants

Horizon Partnerships

- EU in partnership with industry
- Different funding formats: Calls are in Cluster WPs or separately
- Clean Energy Transition CET ("SET")
- Eg. Clean hydrogen, Batteries
- Also EIT Innovation Communities Programmes

Horizon's instruments with relatively free topic

- EIC Accelerator (funding, optional equity, coaching, acceleration services)
- MSCA Marie Skłodowska-Curie actions (research exchange)
- ERC (grants for researchers)

EUREKA programs calls

- Eureka is bottom-up, 1+1 country min.
- Eureka Cluster Calls (Penta, ITEA, Celtic-Next etc) for consortia
- Eureka GlobalStars Calls with non-EU countries, Eurostars for SMEs 1+1
- One application channel, transnational decisions, national eligibility and funding

EU funding outside Horizon

- CEF (CEF Energy), TEN-T
- LIFE+
- Pesco/PADR
- ERDF Structural funds
- Innovation Fund
- Invest EU
- etc

EU's framework programmes for R&D

Horizon 2020
80 mrd.€

Horizon Europe
81 mrd.€

<ol style="list-style-type: none"> European Research Council (ERC): frontier research Future and Emerging Technologies (FET). <ol style="list-style-type: none"> Open Proactive Flagships Marie Skłodowska-Curie (MSCA) – actions: training, career development and mobility for researchers Research Infrastructures 	<ol style="list-style-type: none"> Leadership in Enabling and Industrial Technologies <ul style="list-style-type: none"> 1.1. ICT 1.2. nanotechnology 1.3. materials 1.4. biotechnology 1.5. manufacturing and processing 1.6. space Risk finance: loans & equity funding Innovation in SMEs <p>20% of the budget or pillars II + III to SMEs - SME Instrument(1/3) - Collaborative projects (2/3)</p>	<ol style="list-style-type: none"> Health, demographic change and wellbeing Food security, sustainable agriculture and forestry, marine, maritime and inland water research and bioeconomy Secure, clean and efficient energy Smart, green and integrated transport Climate action, resource efficiency and raw materials Europe in a changing world: inclusive, innovative and reflective societies Secure societies – protecting freedom and security of Europe and its citizens
Also: European institute of innovation and technology, Science with and for society, Spreading excellence and widening participation		
IV Joint Research Center JRC, excl. nuclear		
Nuclear research: EURATOM		



2014...2016...2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

The environment of collaborative calls

- Based on thematic strategic goals proposed by EU and commented by the member states
- Based on strategic programming and topic definitions
- The projects will bring forward innovative solutions as European pilots
- The call topics inspire enterprises and researchers to collaboration in planning, proposing and implementing adequate objectives
- For an enterprise, a relevant role is an excellent opportunity
- Project participation gives good European presence and visibility in the market
- Follow EU's and [Business Finland's](#) newsfeed when Horizon Eu calls are open



The environment of EU partnerships

- Based on a thematic strategic goal agreed between industry and EU
- Based on strategic programming and topic definitions
- The European Partnership membership offers a network to define goals with other members and to jointly form consortia
- The Partnership Programme Calls are the vehicle to get project funding, in the form of Horizon projects
- Project participation gives good European presence and visibility in the market
- Find the contact to the key people on EU's site

[Candidates for European Partnerships in climate, energy and mobility](#)





HE cluster 5

'Climate, Energy and Mobility'

Shadow Programme Committee

All information according to 2nd Meeting 13th of November. 3rd meeting scheduled on 9th of December

Destination 1

Earth system science	CSR 1 – CSR 3
Analysis of pathways leading to climate neutrality	CSR 4 – CSR 9
Adaptation and climate services	CSR 10 – CSR 12
Social science to tackle climate change	CSR 13 – CSR 14
Climate-ecosystem interactions	CSR 15 – CSR 17

Destination 2

Batteries

Raw materials processing
technologies

BAT 1 - 6

Manufacturing processes

BAT 7 – BAT 10

Battery Systems

BAT 11 – BAT 14

Recycling technologies

BAT 15 – BAT 17

Cross-cutting

BAT 17 – 20

Cities and Communities

CS 1 – CS 16

Breakthrough technologies

BT 1 – BT 5

Citizens and Stakeholder engagement

CSE 1 – CSE 4

Destination 3

Renewable
energy

RES 1 – RES 68

Energy systems,
grids and storage

ESGS 1 – ESGS 17

Carbon capture,
utilisation and
storage

CCUS 1 – CCUS 3

Cross-cutting
issues

CC 1 – CC 3

Destination 4

Highly energy-efficient and climate neutral EU building stock

Non-partnership related topics (BEE topics)

Partnership-related topics (B4P topics)

Industrial facilities

01-2021: Full-scale demonstration of **heat upgrade** technologies 100 - 150°C - IA

02-2022: Development and pilot demonstration of **heat upgrade** technologies 150-250°C - RIA

03-2022: Development of high temperature **thermal storage** for industrial applications - RIA

04-2021: Industrial excess (waste) **Heat-to-Power conversion** based on organic Rankine cycles - IA

Destination 5

Zero-emission
road transport

ZERT

Aviation

AVI

Waterborne
transport

WAT

Impact of
transport on
environment and
human health

THE

Waterborne transport – main changes

- Two (partnership) topics postponed due to budget constraints: In line with MS prioritisation (see before).
- Streamlining along MS comments which were largely taken in.
- More focussed and impact orientated header. Clearer emphasis on the importance of the ZEWT partnership and on Commission policy objectives (EGD, Digital Europe, competitiveness, COVID).
- Improved manageability of subsequent calls: Clear references to project outcomes which will inform the evaluations.

Destination 6

Connected, Cooperative and Automated Mobility (CCAM)

- CCAM

Multimodal and sustainable transport systems for passengers and goods

- MSTS

Safety and resilience - per mode and across all transport modes

- *Safety in Urban Areas/ Road Transport Safety*
- *Waterborne Safety and Resilience*
- *Aviation Safety and Resilience*

Call Types CSA – RIA – IA

Coordination and Support Action CSA

- 100% grant
- Accompanying measures such as standardisation, dissemination, awareness-raising and communication, networking

Research and Innovation Action RIA (~[AoF](#)+[VTT](#))

- Commercial time horizon ~5-8 yr, TRL ~4-6, 100% grant for profit and non-profit organisations
- Activities aiming to establish new knowledge / to explore the feasibility of a new or improved technology, product, process, service or solution

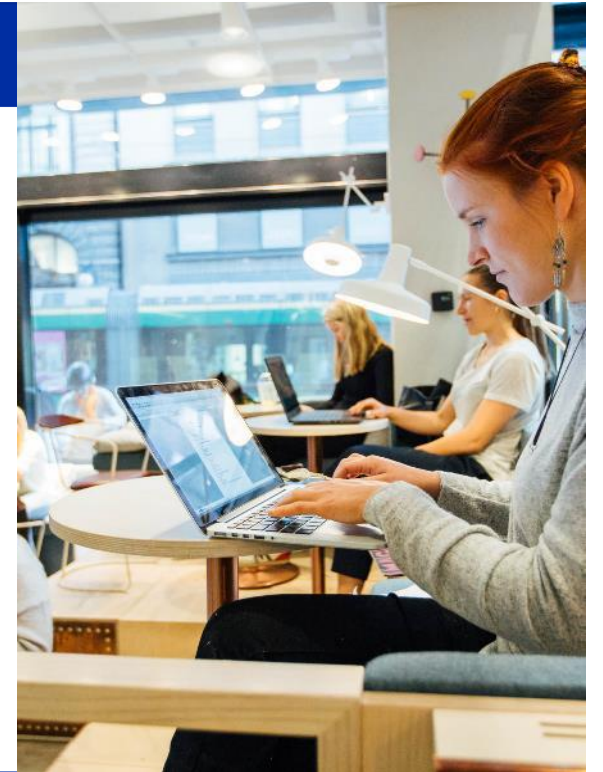
Innovation Action IA – (~BF [Co-Innovation](#))

- Commercial Time Horizon ~3-5 yr, TRL ~6-8, 70% grant for profit organis.(100% for non-profit)
- Activities directly aiming at producing plans and arrangements or designs for new, altered or improved products, processes or services.
- May include prototyping, testing, demonstrating, piloting, large-scale product validation and market replication.

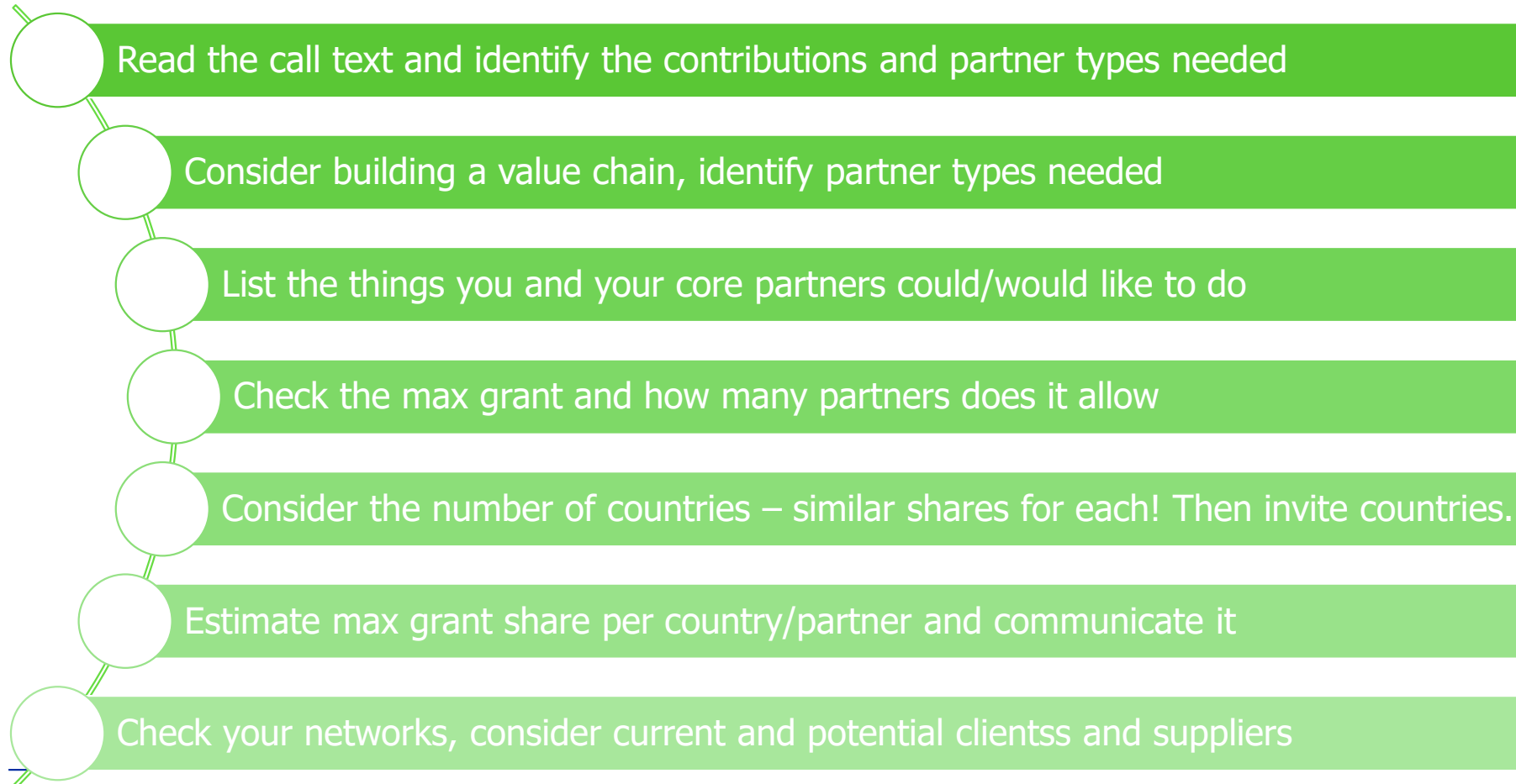
Technology Readiness Level

H2020 TRL definitions

- TRL 1 – basic principles observed
- TRL 2 – technology concept formulated
- TRL 3 – experimental proof of concept
- TRL4 – technology validated in lab
- TRL 5 – technology validated in (industrially*) relevant environment
- TRL 6 – technology demonstrated in (industrially*) relevant environment (~MVP)
- TRL 7 – system prototype demonstration in operational environment (~Pilot)
- TRL 8 – system complete and qualified
- TRL 9 –actual system proven in operational environment (Competitive manufacturing*)



How to build a consortium?



How to find a missing partner?

- **Firstly utilise networks, both your own and your partners'!**
- Check Call page/Partner search
- Check EEN network
- Check H2020 brokerage platforms
- Call Business Finland
- Check Cordis for relevant earlier EU projects' and their consortiums partners

**BUSINESS
FINLAND**

**Advice available
from the NCP
(National Contact Point)
at Business Finland
EUTI**

Advice available from the NCP (National Contact Point)

- ❖ **Communicate about upcoming calls and events**
- ❖ **Coach on the relevant topics and instruments**
- ❖ **Assist with the application process**
- ❖ **Read and comment on proposals**
- ❖ **Organize pitching training**
- ❖ **Follow Finnish participation in the programme**
- ❖ **Utilize our Brussels contacts and networks**

Horizon Cluster 5 delegate for Finland:

- ❖ **Reijo Munther, Business Finland**

National Contact Point:

- ❖ **To be nominated soon more people**
- ❖ **Reijo Munther, Business Finland**
- ❖ **Tom Warras, Business Finland**

