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EIC funding and EIC Green Technologies innovation initiatives



Backing visionary entrepreneurs

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Content



- The EIC
- EIC funded projects in Greece
- EIC Programme Managers
- Guiding principles of selection of Challenges
- EIC Portfolios
- Portfolios Approach

EIC main instruments and characteristics



Pathfinder

- **Early stage research** on breakthrough technologies (TRL 1-4)
- Grants up to €3/4 million
- Successor of FET (Open & Proactive)

Transition

- **Technology maturation** from proof of concept to validation (TRL 4-5/6)
- Business & market readiness
- Grants up to €2.5 million

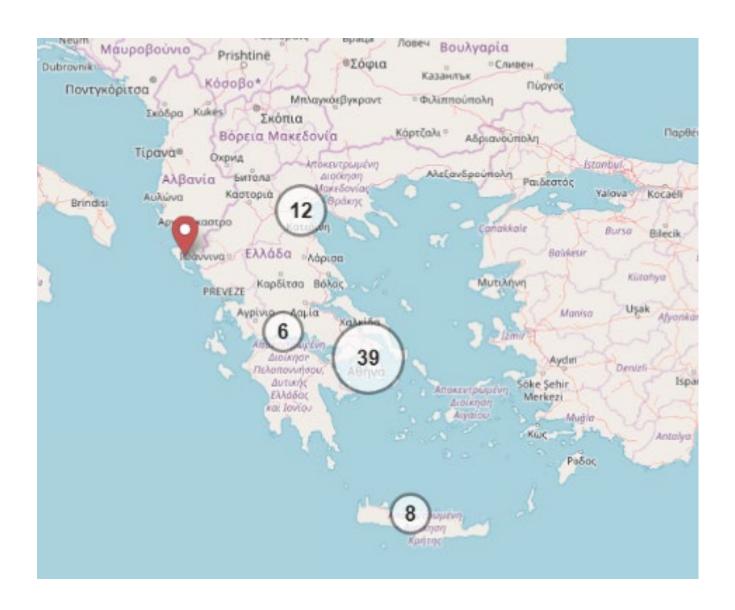
Accelerator

- Development & scale up of deep-tech/ disruptive innovations by startups/ SMEs (TRL 5/6 & above)
- Blended finance (grants up to €2.5 million; equity investment up to €15 million)
- Successor of SME instrument

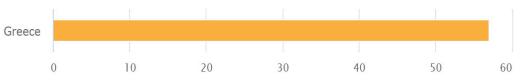
- Mission to identify, develop and deploy high risk innovations of all kinds
- Focus on breakthrough, market-creating, deep-tech
- Steered by **EIC Board** of leading innovators (entrepreneurs, investors, researchers, ecosystem)
- Business Acceleration Services (coaches/ mentors, corporates, investors, ecosystem)
- Pro-active management (roadmaps, reviews, reorientations, etc) with EIC Programme Managers
- Follow up funding for results from Horizon (ERC, EIT, collaborative) & national programmes

EIC funded projects in Greece

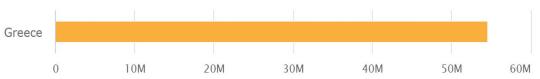




Number of projects funded



Money allocated per country



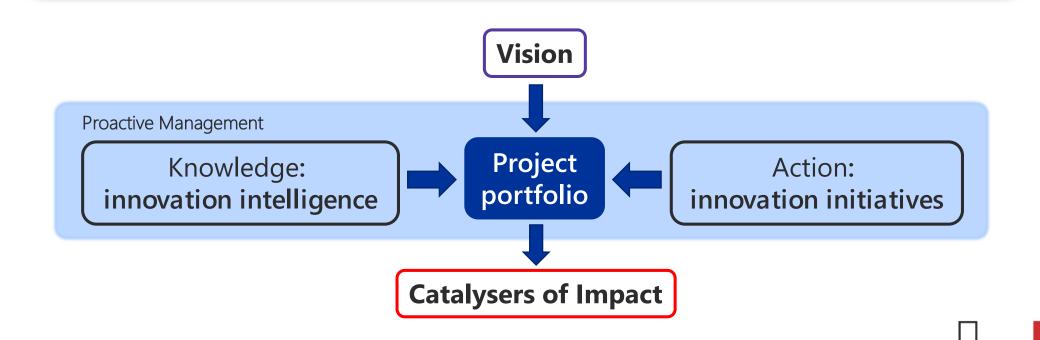
Source:

European Innovation Council (EIC) datahub (easme-web.eu)



EIC Programme Managers

bringing together cutting-edge expertise and visionary drive to turn new technological breakthroughs into relevant and responsible innovations for Europe and for the world: ready to work with others, to accelerate where possible, to be patient where needed, to learn from mistakes and, ultimately, to share the successes







Identify emerging challenges for Europe's deep-tech roadmap

Science and innovation intelligence activity

Hands on approach

Strategic assessment and clustering of projects
Building strategic intelligence portfolios
Scientific / Business portfolios management

Internal/external ecosystem building

Networking with other programmes and with innovation ecosystem communities

Outreach and organization of events, participation to national events / workshops

EIC Proactive Management

Guiding principles for selection of challenges



High innovation potential and recognized industrial interest/market needs

Relevance for EU
technological
autonomy and
expected
economic/societal
implications

Synergies with other Horizon EU programmes

Non incremental research opportunities (Pathfinder)

EU positioning in the global innovation ecosystem and critical mass of EU stakeholders/researchers

Process of Selection (Methodology)



Programme Manager's Role(s)

Initiation

PMs competences and know-how

Foresight reports, key scientific literature assessment

Overview of ERC/EIC funded projects and related innovation/research trends

Guidance

EIC internal brainstorming for preliminary challenges definition

Structured interviews with selected scientists and key experts

Outcome

Assessment of Horizon EU funding programmes/topics



Challenge

EIC Portfolios



Programme Managers overlook different portfolios of projects

EIC Thematic Portfolios

EIC Challenge-based Portfolios

Portfolios

Portfolio activities

Portfolios are initially centred on Pathfinder, but can be extended with Transition and Accelerator Actions, or with non-EIC funded ones.



Hydrogen technologies (generation, storage, logistics, end use)

Energy storage (thermal, chemical, mechanical and electrochemical)

Pathfinder and Transition Thematic portfolios

Solar energy conversion technologies (solar-to-thermal, solar fuels, solar-to-electrical)

Energy harvesting and recovery

Bio-inspired and nature based materials for energy and environment

Sustainable agriculture (farm to fork)

Environmental science (environmental intelligence)



Hydrogen technologies (generation, storage, logistics, end use)

Energy storage (thermal, chemical, mechanical and electrochemical)

Accelerator Thematic portfolios **Cooling technologies**

Water treatment technologies

Sustainable agriculture (farm to fork)

Renewable Energy sources (hydro, PV, wind, Ocean energies, etc..)

Under final clustering also based on different requests





2021 EIC WP Pathfinder Challenge-based call



Novel routes to green hydrogen production

GOAL: to develop novel processes and technologies to produce Green H2, at different scales (distributed or centralized approaches) and with higher flexibility, entirely based on renewable sources and using toxic free, non-critical raw materials. It focuses on the potential of new biological, chemical and physical routes for Green H2 production adopting process circularity, possibly including the co-production of decarbonized chemicals and the integration with existing technologies at system and process level.

OUTCOME: a proof of concept or labscale validated innovative Green H2 production technology **TARGET**: support the development of innovative technologies and value chains for Green H2 production, including both centralized and distributed solutions, for transport, industrial or residential sector

Some Hands-on / content-wise activities



Scientific:

- Comparison of different hydrogen storage technologies
- Evaluation of the system integration of H2 technology (industrial symbiosis, etc..)
- Pathfinder challenge based proposal on Renewable H2 production routes

Business

- Stakeholders engagement meeting (corporates, financial investor, etc..)
- Innovation deal on RFNBO Guarantee of origin

Networking

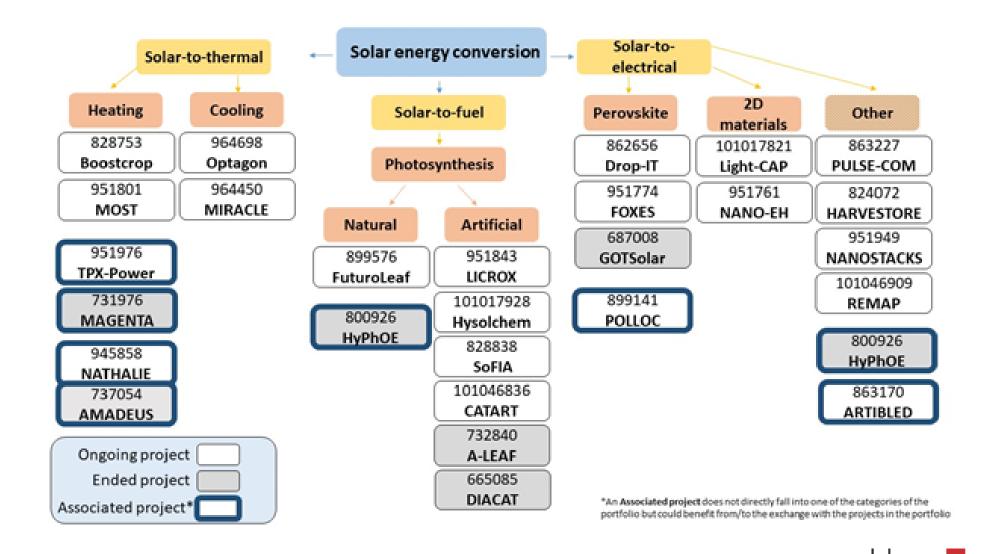
- Meeting with different EU, national, regional initiatives in the H2 economy
- Joining of different scientific events
- EIC Summit: discussion between EIC funded projects / scientists / VCs
- Discussion with ERRIN to link regional projects with EIC funded projects (thematic ecosystem to promote EU thematic initiative)



Solar Energy Conversion

Solar Energy Conversion Portfolio





Some Hands-on / content-wise activities



Scientific:

- Certification issues with JRC on Perovskite solar cells
- Light absorbing materials without CRM
- System integration of some technologies (indoor PV, solar fuels)

Business

- Stakeholders engagement meeting (corporates, financial investor, etc..)
- Infrastructure for scale up of nanomaterials facilities/experiences

Networking

- Innovation intelligence activities looking at other EU initiatives in the field
- Joining of different scientific events
- Discussion with ERRIN to link regional projects with EIC funded projects (thematic ecosystem to promote EU thematic initiative)

Cluster 5 Work programme - overview



Destination 1 – Climate science

Batteries

Climate science

Destination 2 – Cross-cutting solutions

Cities

Breakthrough technologies

Citizen and stakeholder engagement **Destination 3 – Energy supply**

> Renewable energy

Energy system, grids and storage

CCUS

Cross-cutting activities

Destination 4 – Energy demand

Buildings

Industry

Destination 5 -Clean and competitive solutions for all transport modes

Zero-emission road transport

Aviation

Waterborne transport

Transport-related health and environmental issues

Destination 6 -Transport and Smart Mobility services

Connected, Cooperative and

Multimodal and

Safety and resilience



Synergies with other HEU programmes and Cluster 5

Participation to Cluster 5 co-creation groups: energy storage & grids, breakthrough technologies, RES, CCUS, buildings

Synergies with H2020 partnerships: Clean H2, Clean aviation and interaction with other programmes (IPCEI, H2 valleys, MS activities)



Thank you!

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