KEY THE ENERGY TRANSITION EXPO

Rimini, 1st March 2024

Finanziamenti della Commissione Europea per lo sviluppo di tecnologie per la produzione di energie rinnovabili

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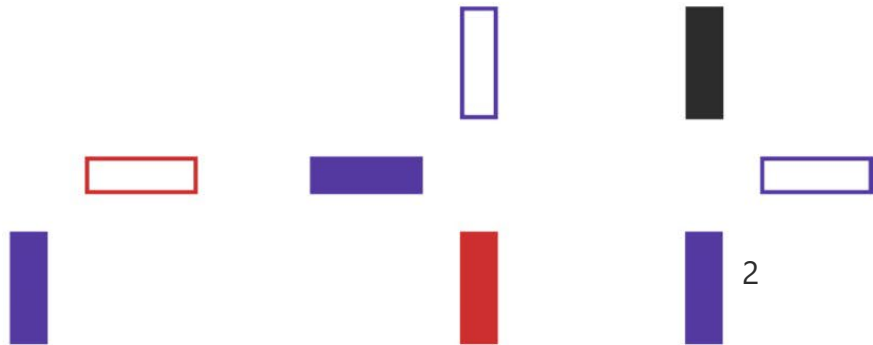
Programme Manager for
Advanced Materials for Energy and Environmental Sustainability

Agenda

European Innovation Council

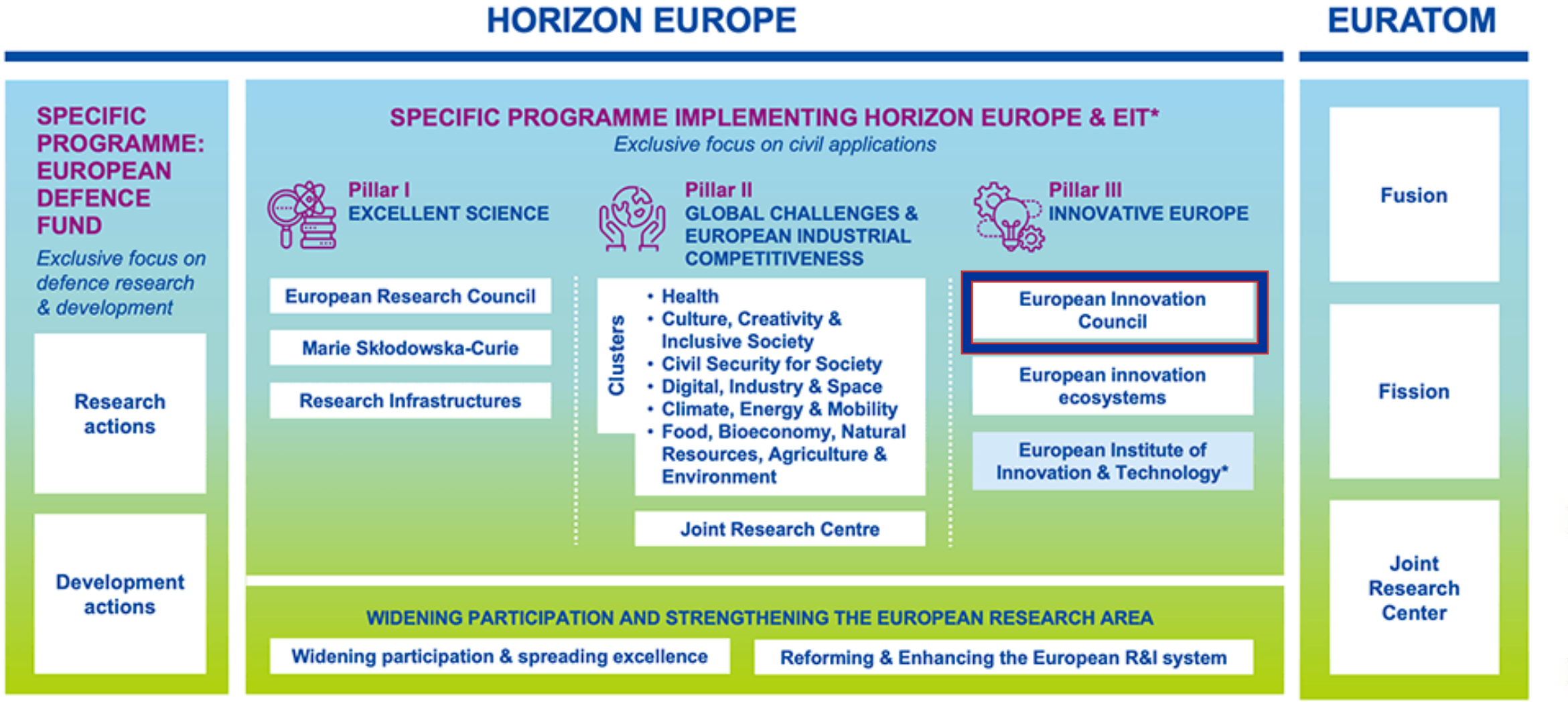
Accelerator Challenge call - European Innovation Council 2024 Work Programme

Innovation Fund



Horizon Europe Structure

European Innovation Council



* The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme

What's holding back European innovation?

Innovation **performance**	• **Strong research performance not translated** into innovation • **Lack of breakthrough/ disruptive innovations** that create new markets
Innovation **funding**	Financing gaps (2 "valleys of death") in • **Transition** from lab to enterprise • **Scaling up** for high-risk innovative start-ups
Innovation **ecosystem**	• Many national & local ecosystems, but **fragmented at European** level • Need to **include all regions and all talent** (especially female)

We need to overcome European Paradox – perceived failure of EU countries to translate scientific advances into marketable innovations.

The main EIC Support Schemes

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Pathfinder

For advanced research on breakthrough / game-changing technologies

Pathfinder Open: bottom-up approach; no predefined topics

Pathfinder Challenges: top-down challenge-driven calls for tackling specific issues by portfolios of projects

Transition

For transforming research results into innovation opportunities;

follow up results from EIC Pathfinder and ERC Proof of Concept

Transition Open: no topic prescription

Transition Challenges: selected challenges

Accelerator

For individual companies to develop and scale up breakthrough innovations with high risk and high impact

Grant Funding

Equity Funding

Business Acceleration Service

EIC Fund: VC fund – EC shareholder / Bridging equity funding gap at early stage / Crowding in other investors

Business Acceleration Service: access to advice, to business partners and to innovation ecosystems & peers

Hands on approach

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Business Acceleration Services

- Access to advice/skills
- Access to business partners
- Access to innovation ecosystem & peers

Explore — EIC Pathfinder

Exploit — EIC Transition activities

Scale up — EIC Accelerator & equity

The EIC Programme Managers

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

Networking with other programmes and with innovation ecosystem communities

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

EIC Proactive Management

EIC PROGRAMME MANAGERS

Iordanis Arzimanoglou
Biotechnology & Health

Enric Claverol-Tinturé
MedTech & Medical Devices

Francesco Matteucci
Materials for Energy & Environment

Antonio Marco Pantaleo
Energy Systems

Stella Tkatchova
Space systems & technologies

Federica Zanca *AI in Medical technologies*

Samira Nik
Quantum tech & electronics

Franc Mouwen
Architecture engineering construction technologies

Ivan Stefanic
Food chain technologies, novel & sustainable food

Isabel Obieta

Sustainable electronics

Carina Faber
Renewable energy conversion & alternative resource exploitation

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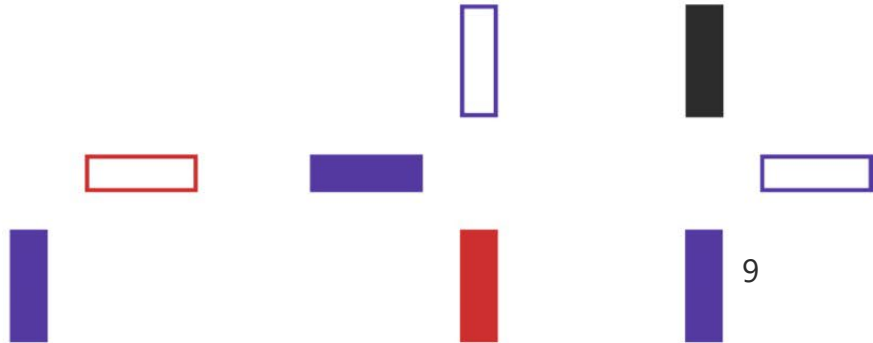
Accelerator Challenge:

Renewable energy sources and their whole value chain
including materials development and recycling of components

Scope:

- To drive the renewable energy transition, it is necessary to invest more in the development of RES and minimize both their environmental impact and levelized cost of energy (LCOE).

- To make the EU reach the strategic net-zero manufacturing capacity we need to scale up the manufacturing, and the whole supply chain of RES, in the EU.



Specific objectives:

This challenge aims at scaling-up different RES and their supply chain to ultimately increase the EU's energy strategic autonomy in the energy sector.

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Specific objectives:

This challenge focuses on RES and its proposals can target one or more of the following objectives:

- • scale-up the manufacturing of RES that produce heat and electricity from renewable sources at different scales and uses.
- • Scale up of technologies for exploring, mining and or processing, synthesizing materials, excluding CRM, that are part of RES.
- • Scale-up of technologies for recycling or re-use of RES components, including materials, into usable materials and/or components.

Expected outcomes and impacts:

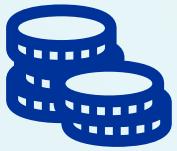
- Strengthen the European value chain producing RES.
- Limit the EU's significant dependency on imports CRM and components necessary for the renewable energy transition.
- Enable a more diversified and risk-aware configuration of the European value chain of the RES.

Indicative budget

- EUR 50 Million

Innovation Fund

CINEA in a Nutshell



~ EUR 65 billion for the period 2021-2027

> 600 staff by 2027

from 3000+ projects managed in 2023 to > 4000+ projects by 2027

- **Experts** at the service of beneficiaries in managing complete lifecycle of projects
- **Policy feedback** as an essential part of funding activities
- Exploitation of **synergies** and dynamic ways to work across programmes

INNOVATION FUND

Deployment of net-zero and innovative technologies

Funded by: **EU Emissions Trading System**

Funding through Grants and Auctions

EUR 40 billion* to invest from 2020-2030 in EU's climate neutral future

Avoid emissions and boost competitiveness

Supporting manufacturing, production and use in:

Energy intensive industries

Renewables

Energy storage

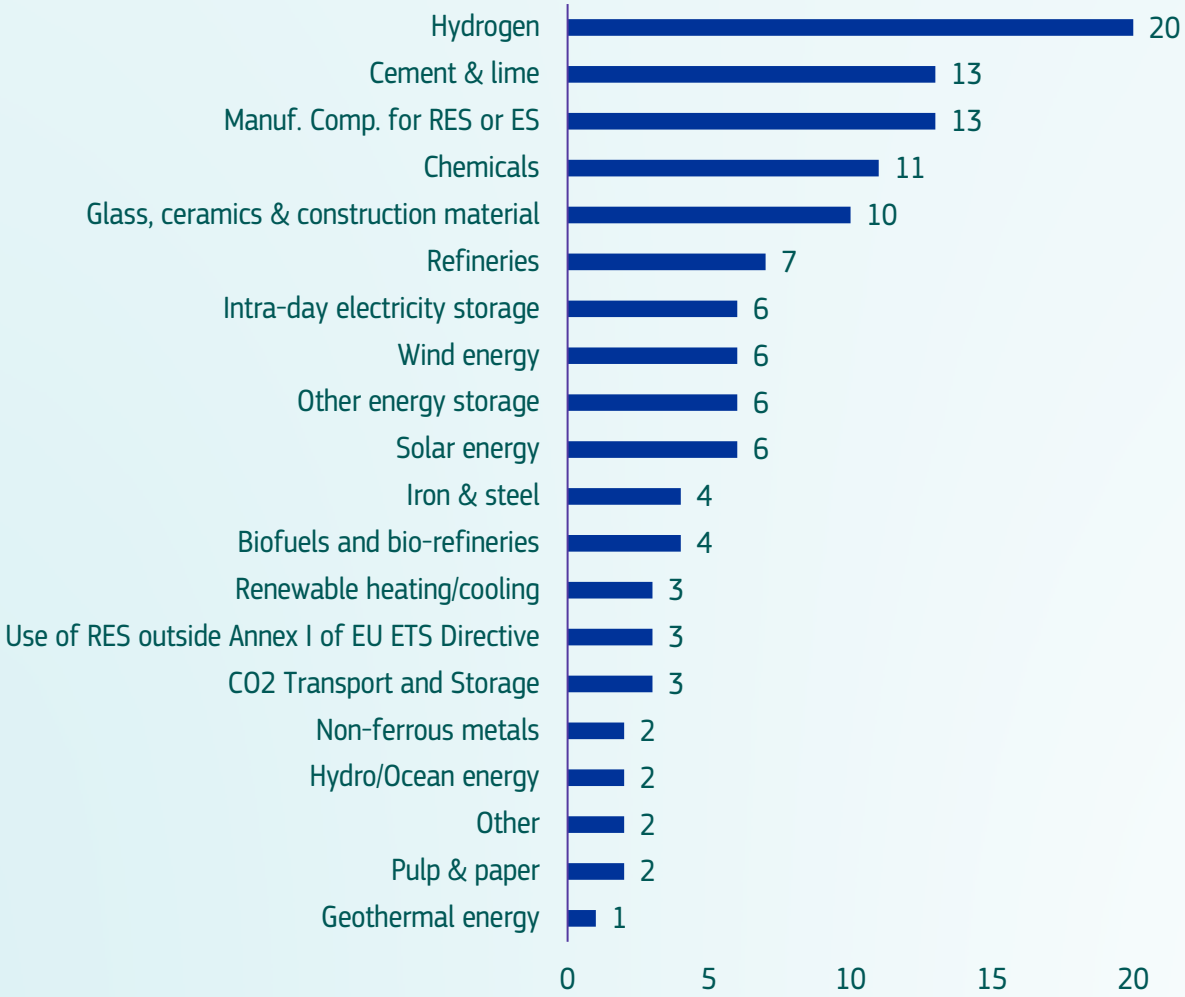
Carbon capture, use and storage

Net-zero mobility and buildings

*based on a carbon price of 75 EUR/tonne

Portfolio of ongoing and selected projects

2020 LSC, 2020 SSC, 2021 LSC, 2021 SSC, 2022 LSC*, 2022 SSC*



24 Countries

447 Mt CO_2 eq to be avoided

€ 6.64 Billion EU granted + ongoing GAP

Projects: 103 ongoing +20* invited

**Data includes ongoing projects and preselected proposals from SSC-2022+ one from reserve list LSC-2022 and two LSC-2022 currently under GAPs*

European Commission

| Project Factsheet

During next decades, the market-uptake of electric vehicles (EVs) is expected to result in the availability of terawatt-hours of batteries that, after their first 5 years of intense exploitation, no longer meet the high-performance requirements of EV?s. Yet, since still functional and able to serve less-demanding applications, these batteries can live a second life providing stationary energy storage services at lower cost, reducing thereby environmental impacts and GHG emissions of

COORDINATOR
AEROPORTI DI ROMA SPA

LOCATION
Italy

CATEGORY
Energy Storage (ES)

SECTOR
Intra-day electricity storage

AMOUNT OF INNOVATION FUND GRANT
EUR 3,102,623

EXPECTED GHG EMISSIONS AVOIDANCE
16,004 tonnes CO2 equivalent

STARTING DATE

the day by a 30MW solar PV power-plant planned to start operation in 2025, and to return the stored energy by covering the peak-demand of airport facilities during evenings when solar energy becomes unavailable.

The Innovations expected from the project shall allow to define how to optimally integrate into a same common power-supply system batteries of different size, voltage, capacity, brands, technologies and at differing ageing levels. Furthermore, the lessons learned by the project shall allow to outline a guidance for applicable business-models, including technical characterization procedures allowing to determine the ageing level of adopted batteries and of ensuing economics, both at the beginning for acceptance testing of 2nd-life batteries, and during the remaining battery lifetime.

Expansion of project results to other EV brands shall allow to enlarge applicability to possibly any market-available EV battery make. Once the project will be completed, AdR plans to install additional storage systems up to at least 30 MW power and 90MWh capacity

| Beneficiaries

AEROPORTI DI ROMA SPA	Italy
ENEL X SRL	Italy
FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG EV	Germany

European Commission

SOLAR ENERGY

INNOVATION FUND

Deployment of net-zero and innovative technologies

TANGO: ITaliAN PV Giga factOry

The Innovation Fund is 100% funded by the EU Emissions Trading System

| Project Factsheet

The TANGO project will develop an industrial-scale pilot line in the South of Italy for the manufacture of innovative, high-performance photovoltaic (PV) modules, increasing production capacity by 15 times, from 200 MW to 3 GW per year. Production will include bifacial heterojunction (B-HJT) PV cells, which offer a very important effective efficiency improvement of up to 20%, relative to current state-of-the-art cells, and an innovative module design called a Tandem structure.

The modules produced in one year (3 GW) will have the potential to generate 5 445 GWh of renewable electricity per year. Once installed, all the modules produced over the first ten years of operation have the potential to avoid up to 25 Mt CO2e emissions. The main innovation lies in scaling up production of these cells to a gigawatt scale – a key goal for the European PV industry. The gigawatt-scale factory will foster European technology leadership in the manufacture of next-generation PV modules, thereby contributing to the reduction of energy dependency in Europe and improving European competitiveness in PV manufacturing.

COORDINATOR
3SUN S.R.L.

LOCATION
Italy

CATEGORY
Renewable Energy (RES)

SECTOR
Solar energy

AMOUNT OF INNOVATION FUND GRANT
EUR 117,675,100

EXPECTED GHG EMISSIONS AVOIDANCE
25,043,106 tonnes CO2 equivalent

STARTING DATE
01 January, 2021

ENTRY INTO OPERATION DATE
01 September, 2023

FINANCIAL CLOSE DATE
31 December, 2022

Updated on 13 December 2023

| Beneficiaries

3SUN S.R.L.	Italy
ENEL GREEN POWER ITALIA SRL	Italy

Innovation Fund 2023 Call

Duration: 23 Nov. 2023 - 7 April 2024

Funding: **€ 4 billion** + PDA

Grant distribution: **LUMP-SUM contribution**

- Grant up to 60% of relevant costs
- Up to 40% of grant at financial close
- Remaining amount of at least 60% after financial close
- Generally, at least 10% after Entry into operation

Topics:

Large Scale Projects
Medium Scale Projects
Small Scale Projects
Clean-tech manufacturing
Pilot projects

Sectors:

- Energy Intensive Industries
- Renewables
- Energy Storage
- Carbon capture and storage
- Maritime
- Aviation
- Buildings

Location: EU Member States and Iceland, Liechtenstein and Norway

[Link to Info Day for recordings]

European Commission

Join as project evaluator for Innovation Fund

- Technical expert
- Financial expert
- GHG expert
- Rapporteur

[Sign up as an Expert (europa.eu)]

European Commission

Where to find more information?

European Innovation Council

All (past) call documents available on the Funding and Tenders Portal including:

- ✓ Guidance and calculation tools on GHG emissions and relevant costs
- ✓ Frequently asked questions

https://europa.eu/!QB67by

Further info, planning of new calls, recorded webinars and videos available on the IF Website:

https://europa.eu/!rx34Dt

Innovation Fund - YouTube

https://bit.ly/2WxK8w7

European Commission

European Innovation Council

Thank you!

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