



Innovation Fund

Luxinnovation – 12 November 2024

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INNOVATION FUND

Deploying innovative net-zero technologies for climate neutrality

Funded by the EU Emissions Trading System



€40 billion* available
between 2020-2030

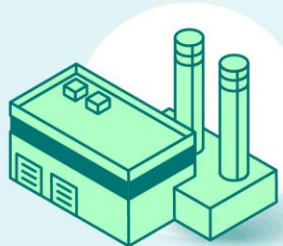


grants awarded through
regular calls and auctions



avoid GHG emissions,
boost competitiveness

supporting innovation in:



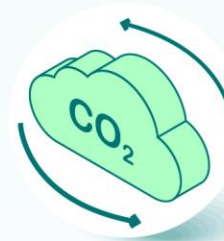
Energy-intensive
industries



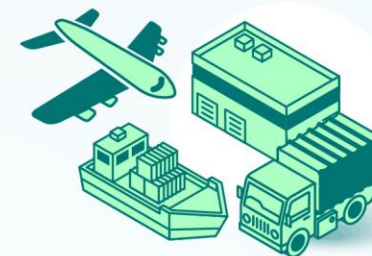
Renewable
energy



Energy
storage



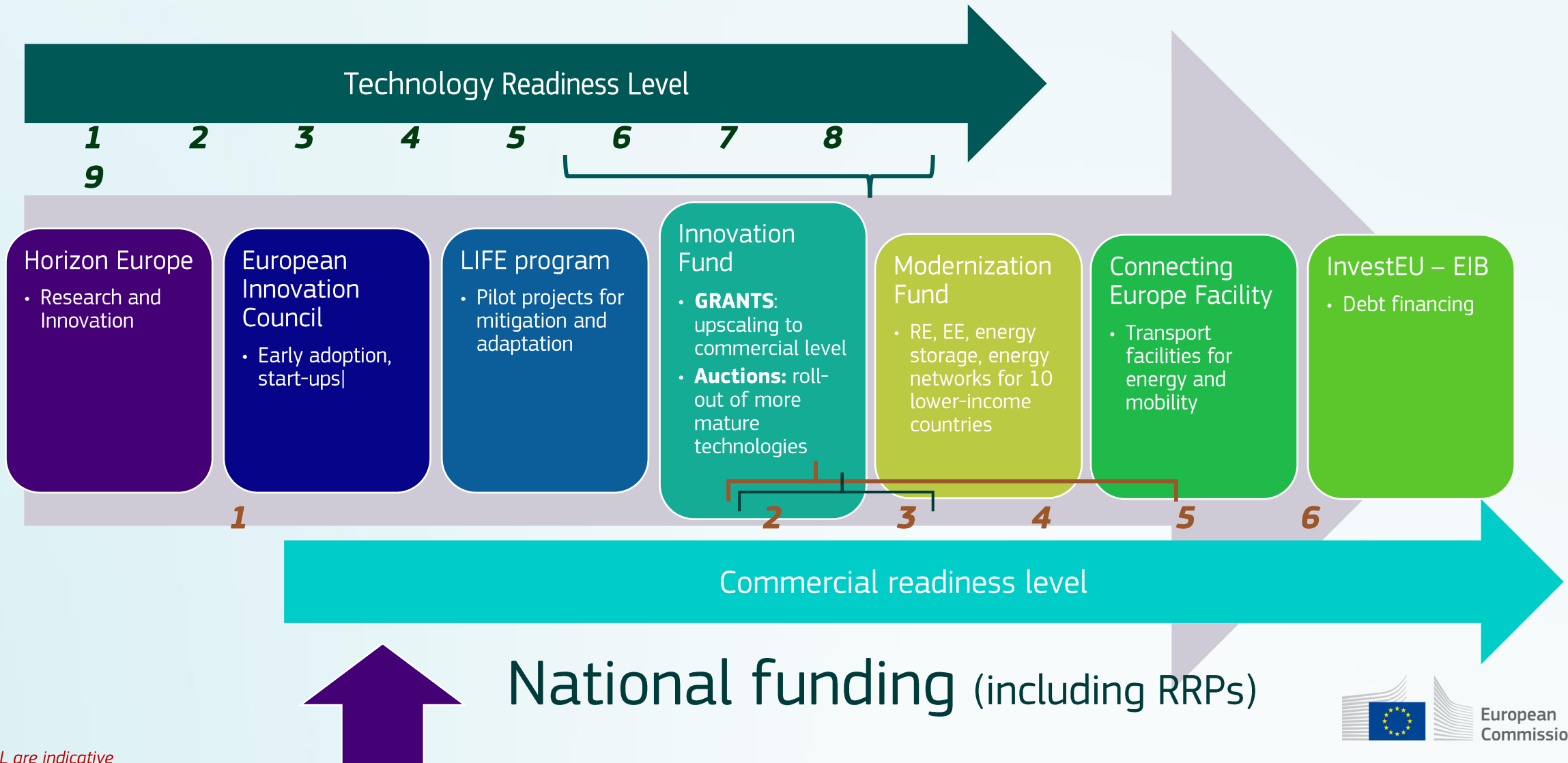
Carbon capture,
use and storage



Net-zero mobility
and buildings

**based on a carbon price of €75/tonne*

Innovation Fund – targeted project portfolio



Innovation Fund Governance

Public

- Policy and priorities definition
- Call design definition
- Selection Decision
- EIB coordination

DG CLIMA



- Evaluation
- Grant Preparation
- Project Implementation
- Program Reporting
- Feedback and policy recommendation to CLIMA

CINEA



- MS reps
- Stakeholders
- Advise EC on programme design and operation
- MS consulted on pre-selected proposals

IFEG



- Technical support to CLIMA
- GHG methodologies and tools

**ICF /
Fraunhofer**



- Allowances monetisation
- Asset management
- Project Development Assistance

EIB



The Innovation Fund can support urgent policy priorities, but holds a long-term line of bottom-up support across sectors



- **Net-Zero Industry Act:** clean tech manufacturing topic (€700 million in 2022, €1.4 billion in 2023).
- **European Hydrogen Bank:** domestic auctions for renewable hydrogen under the Innovation Fund.
- **Wind package:** clean tech manufacturing topic and project development assistance.
- **Strategic Technologies for Europe Platform (STEP):** STEP Seal for Innovation Fund projects.
- **Industrial Carbon Management (ICM) Strategy:** support for CCUS deployments since 2020.

Four main types of support by IF

1. Regular Grants

- 7 Calls for proposals since 2020
- Organised by size of CAPEX and, since 2023, also directed to manufacturing and pilot projects
- EUR 12 billion awarded so far

2. Auctioned grants

- First auction in 2023, second in 2024
- Directed to RFNBO hydrogen producers located in Europe
- European Hydrogen Bank
- Almost EUR 700 million awarded **so far**

3. Advisory Services

- Project Development Assistance
- Technical Assistance to countries
- NCP network

4. Blending Finance

- Blending with InvestEU guarantees: “EU Catalyst Partnership.”
- EUR 220 million contribution from IF

Evolution of the Innovation Fund



For the close Calls, the figures represent the budget allocated to the innovation fund for projects after the selection phase

** Budget made available*

Calls for proposals

Regular grants

- Coverage **of up to 60% of relevant cost (funding gap), possibility of cumulation with State aid**
- Reliance on **relevant cost calculation** / financial model to determine funding gap
- **Payments before entry into operation possible against milestones.** Some construction risk taken by the IF
- Due diligence fully covered through **application & evaluation process**
- **Non-price** award criteria
- Possibility to support **wide variety of innovations** in a single call.
- **Large scale demos, first-of-a-kind projects, large pilots**

Auctions

- Coverage **of up to 100% of relevant cost, no cumulation**
- **Reliance on strong competition to reveal funding gap & avoid overcompensation.**
- **No payments before entry into operation.** Construction/tech risk remains with private sector. Output-based payments of certified and verified production.
- Due diligence can be partially rolled onto **completion guarantee**
- **Price-based award criterion**, possibility for non-price criteria
- Need to focus on one **uniform auctioned good**
- **Higher TRL/CRL**

Common features

- Key milestones: financial close, entry into operation, annual production/GHG emission avoidance
- Both cover OPEX and CAPEX costs
- Possibility of topics
- Both are result-based, rely on LUMP-SUM payments or UNIT COST contributions rather than cost declarations
- 8 • Both require advanced project maturity

The Innovation Fund in a nutshell



208 projects:
123 ongoing +
85 under GAP*



€ 12.04 Billion
EU granted +
under GAP*

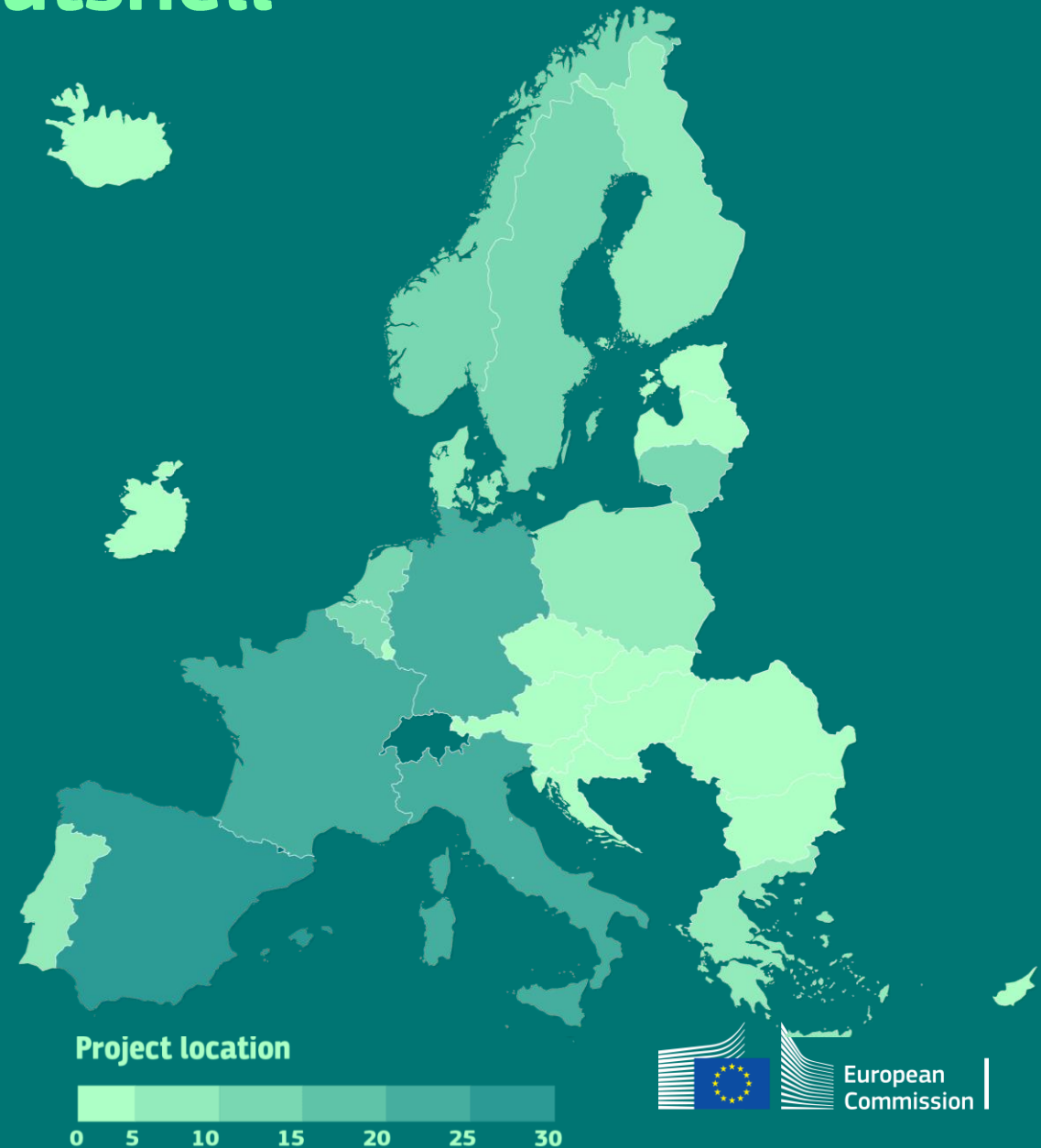


~929 Mt CO₂ eq
to be avoided**



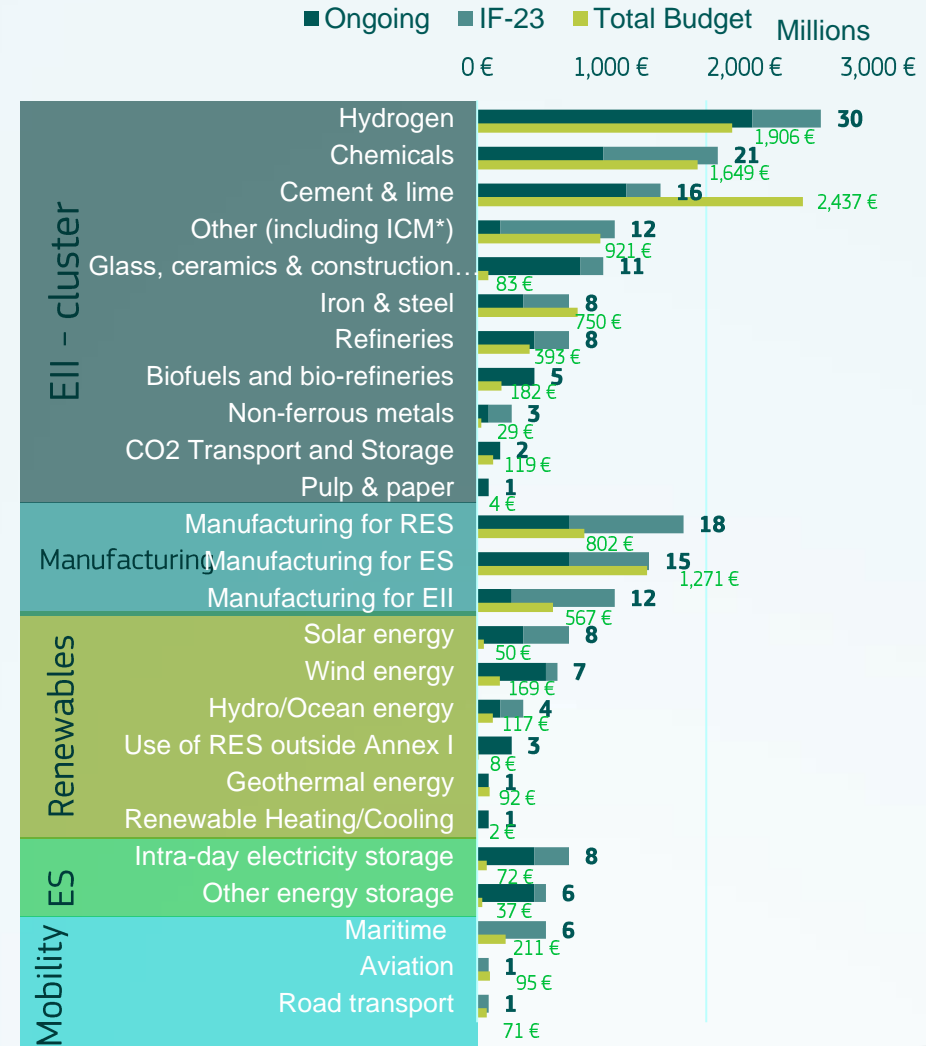
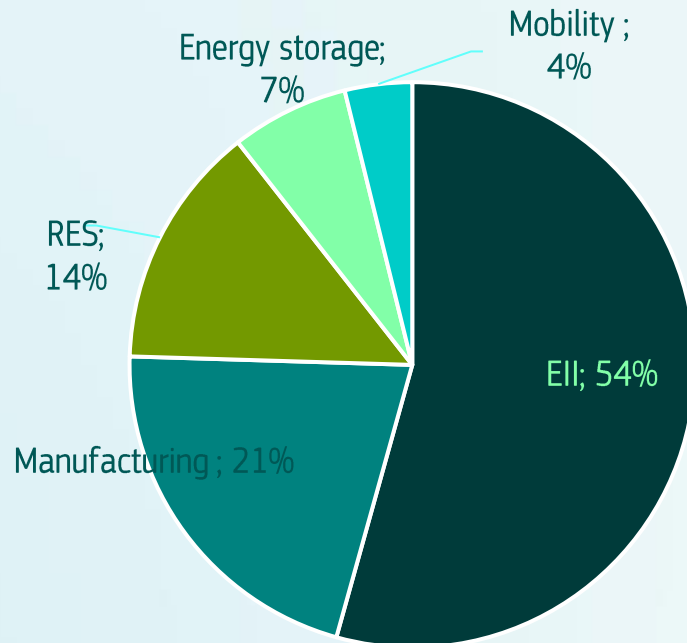
26
Countries

Two new countries added: Estonia and Slovakia



IF Portfolio

Share of projects by cluster
(by number of projects)



* Statistics include: 123 ongoing + 85 IF23 projects. Projects are allocated to their main country of implementation

Innovation Fund 2024 funding opportunities



IF24 Auction

- RFNBO Hydrogen
- Expected launch: 3 December 2024
- Budget EUR 1.2 bn



IF24 Call

- General, Cleantech, Pilots
- Date and the budget to be announced beginning of November 2024



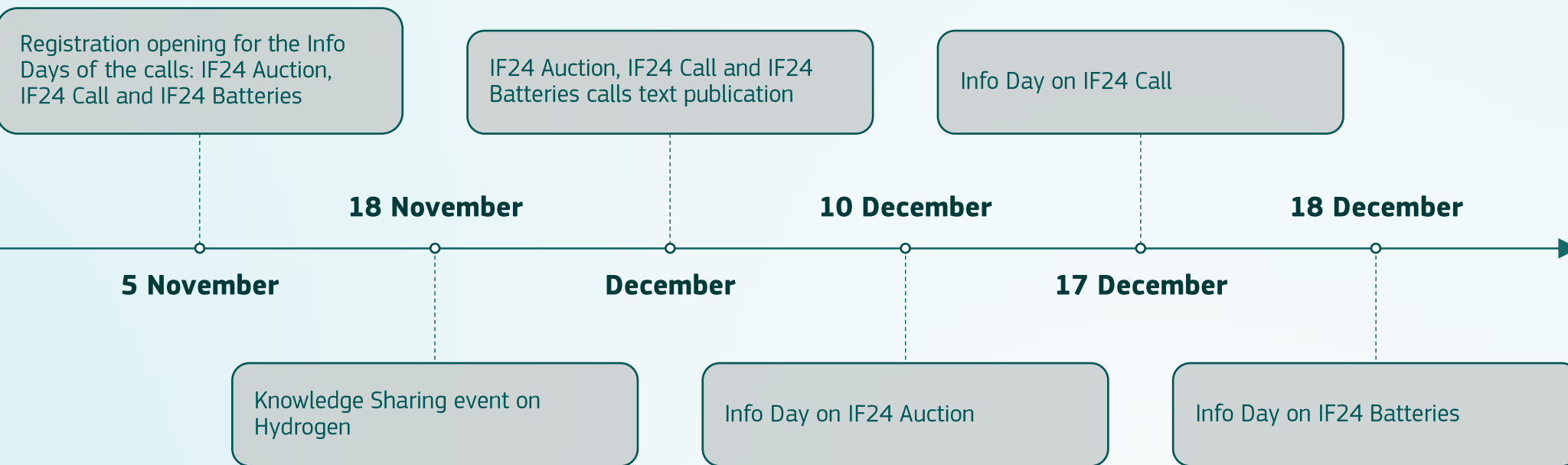
IF24 Batteries

- Manufacturing of electric vehicles battery cells
- Date and the budget to be announced beginning of November 2024

All relevant documents for applicants will be available on the **EU funding & Tenders Portal**

Info Days are planned in December, National Info days early 2025

Forthcoming events & Future Calls



IF Regular Grants – *overview of the IF23 Call*

A reference – Innovation Fun 2023 call in a nutshell



Launch 23 Nov. 2023
Deadline 9 April 2024
Results Q4 2024



€ 4 billion for grants
+
Project Development Assistance



Five topics

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.

AWARD CRITERIA

- **Degree of innovation**
- **GHG emission avoidance**
- **Project maturity**
- **Replicability**
- **Cost efficiency**

Bonus points: Net Carbon Removals, Other GHG savings, electricity from additional RES, maritime sector decarbonisation potential

Innovation Fund 2023: Five Topics

Topic	Project eligibility	Topic budget
Large-scale projects	CAPEX > EUR 100 million	EUR 1 700 million
Medium-scale projects	EUR 100 million < CAPEX > EUR 20 million	EUR 500 million
Small-scale projects	EUR 20 million < CAPEX > EUR 2.5 million	EUR 200 million
Clean-tech manufacturing	CAPEX > EUR 2.5 million	EUR 1 400 million
Pilot projects	CAPEX > EUR 2.5 million	EUR 200 million

Admissibility and Eligibility

Admissibility

- Submitted **before** call **deadline**, electronically and using forms in the Submission System
- **Complete** all the application forms and **include mandatory annexes**

Eligibility

- Participants have to be **legal entities**; can be established anywhere in the world
- Projects must be located in the **EEA** (EU Member States and Iceland, Liechtenstein and Norway)
- The project must:
 - Reach **financial close within 4 years** after grant signature (maximum time to financial close)
 - **Operate at least** (minimum GHG emission avoidance monitoring period) **5 years** after entry into operation
 - Except SSP and PILOTS – at least 3 years after entry into operation
- Project budget: the maximum grant amount **must not exceed 60 % of the relevant costs**

Eligibility: Themes and priorities

Large, Medium and Small-Scale projects

- **Innovation in low-carbon technologies and processes** in sectors listed in Annex I and Annex III to the EU ETS Directive [2003/87](#), including CCU
- Construction and operation of projects for **CCS**
- Construction and operation of innovative **renewable energy** and **energy storage technologies**
- **Maritime and aviation** transport sectors: energy efficiency, sustainable alternative fuels, electrification, zero-emission propulsion technologies, wind technologies, innovative infrastructure in the maritime sector for EU container transshipment ports

Clean-tech manufacturing

- **Renewable energy installations** (in photovoltaics, concentrated solar power, on-shore and offshore wind power, ocean energy, geothermal, solar thermal, and others), including their connection to the electricity/heat grid
- **Electrolysers and fuel cells**
- **Energy storage solutions** covering batteries and other storage solutions for stationary and mobile use for intra-day and long duration storage
- **Heat pumps**

Pilot projects

- Construction and operation of projects **validating, testing and optimising highly innovative, deep decarbonisation solutions in all sectors** eligible for Innovation Fund support

Award Criteria

Degree of Innovation

- Innovation beyond state of the art (see Annex 1 of call text) at European level (except SSP – European or national)
- Consider the ongoing Innovation Fund [projects](#)

GHG emission avoidance potential

- Absolute
- Relative
- Quality of the GHG emission avoidance calculation and minimum requirements

Project maturity

- Technical
- Financial
- Operational

Replicability

- Efficiency gains
- Further deployment
- Resilience of EU industrial system
- Multiple environmental impacts
- Knowledge sharing

Cost efficiency

- Cost efficiency ratio (different formula for Pilot projects)
- Quality of the cost calculation and minimum requirements

Bonus:

1. Potential for **net carbon removals**
2. **Other GHG savings**, e.g. due to transportation of raw materials or finished products, waste management, upstream emissions of fuels in the project scenario

New GHG emission calculation methodologies for maritime and

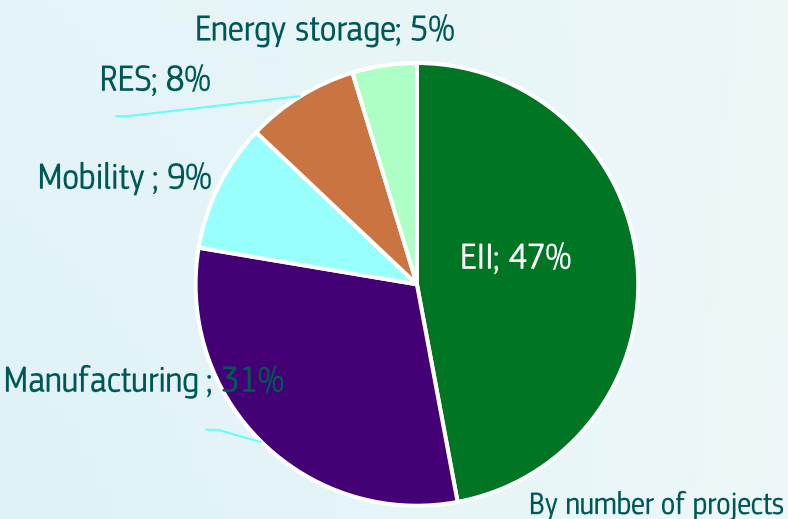
Bonus:

1. Use **electricity from additional renewable sources** or use **RFNBO** hydrogen
2. Demonstrated potential to decarbonising the **maritime sector** and reducing its climate impacts

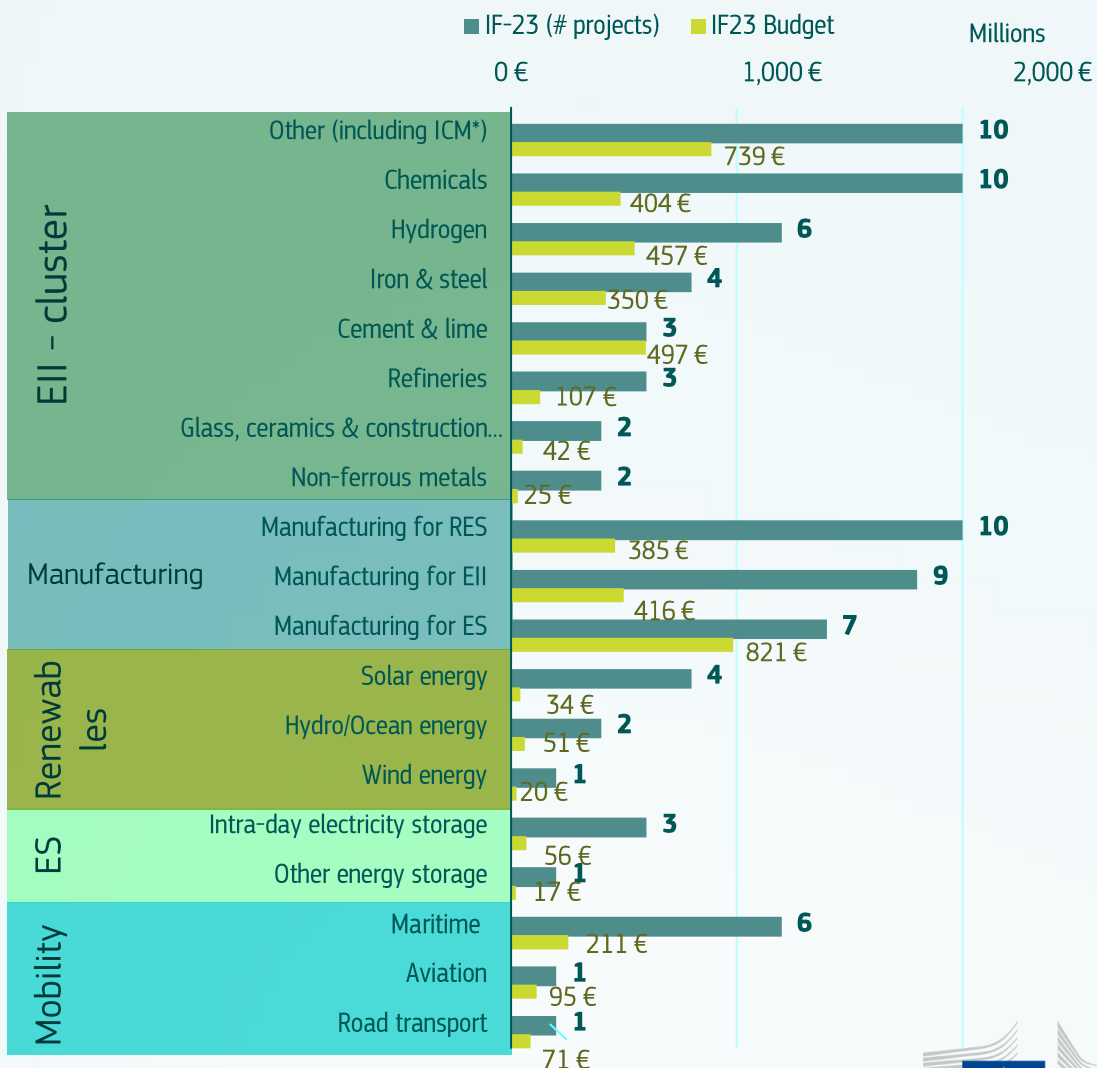


IF23 selected projects

Share of projects by category



Newly added mobility projects in:
Aviation, Road transport, Maritime* sectors



IF Auctions

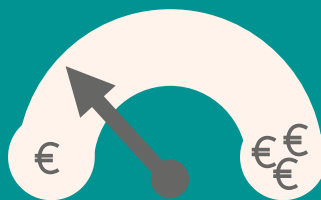
IF24 Auction for RFNB0 H2

EU domestic RFNBO H2 auction objectives



Cost-efficient,
market based instrument
for financial support

2



De-risking projects and
maximising leverage of
private capital

4



Price discovery and
market formation



Reduced administrative
burden

Objective of the IF24 Auction

Support **production** of **Renewable Fuel of Non-Biological Origin (RFNBO) Hydrogen** as defined in the RED and its Delegated Acts. NEW: Contribution to achieving **security of supply of essential goods and** contribution to **Europe's industrial leadership and competitiveness**.

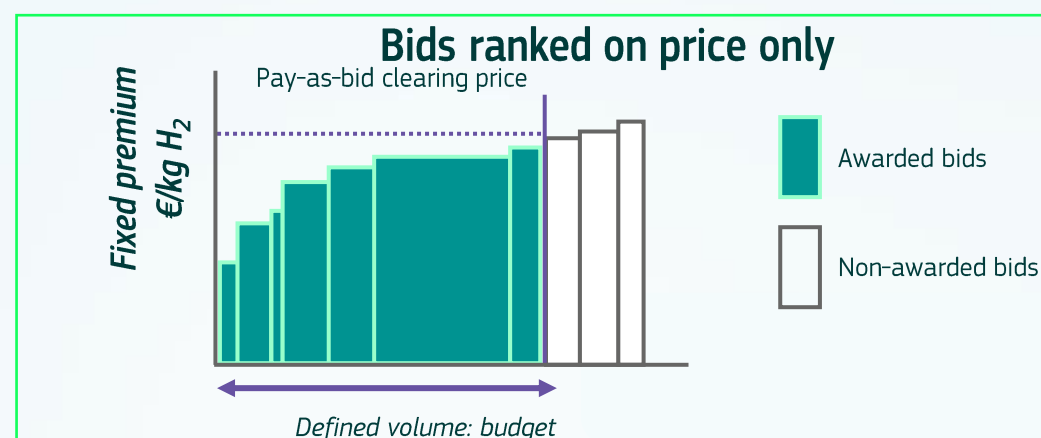
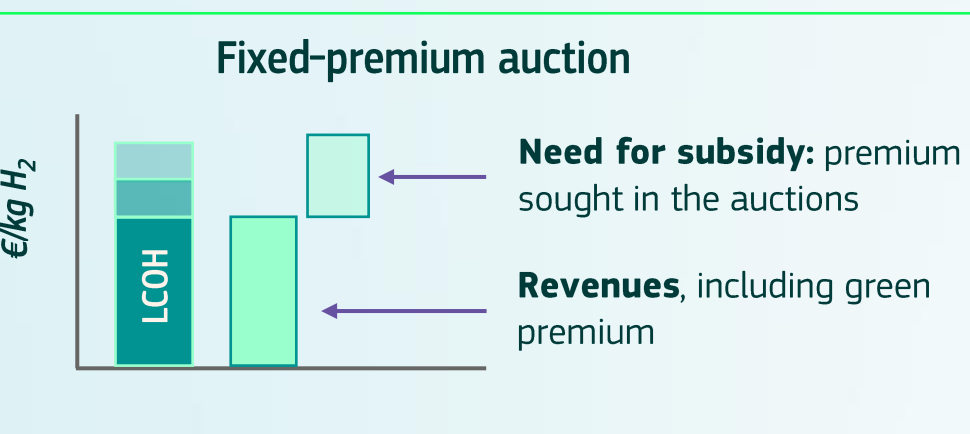
Support in form of a **fixed premium** in €/kg of renewable hydrogen **produced** over **10 years**

Single stage, pay-as-bid (no indexation to inflation).

Pass/Fail qualification criteria and **Ranking based on price** - budget allocated to projects with the lowest specific support requirements

Output based support, upon verified and certified production of RFNBO volumes (no payments before entry into operation), Semi-annual payments.

Auctions-As-A-Service



General eligibility conditions

Location:

within the EEA

Installed capacity:

minimum **5 MWe, new** capacity,
Single location (no virtual capacity pooling)

Bid ceiling price:

4 EUR/kg RFNBO Hydrogen

Maximum size
of the bid:

General Topic: EUR 250 million (1/4th of total budget 1b€)
Maritime Topic : EUR 200 million

Key implementation arrangements

Financial close	2.5 years after signing Grant Agreement
Entry Into Operation	5 years after signing Grant Agreement
Completion guarantee	8% of the requested grant
Payments	No payments before entry into operation. Then, biannual basis - EUR/kg of RFNBO Hydrogen produced, certified and verified for a maximum period of 10 years .
Cumulation	<u>with other public funding</u> : limitations apply, same as pilot auction
Production requirements	Semi-annual production may be increased to up to 140% of planned. Total grant amount cannot be increased. Production can not fall below 30% of planned production for more than three rolling consecutive years
Compliance	<u>With the criteria</u> under which the project was selected (e.g resilience criteria, maritime topic eligibility criteria) will be monitored during implementation

Project Development Assistance

Innovation Fund PDA

EIB financial and technical experts provide **Project Development Assistance (PDA)** to Innovation Fund eligible projects

Access
Route 1



**Application
to
IF Calls for
Proposals**

- After submitting an IF grant application, and if unsuccessful, your application may be eligible for PDA.
- PDA aims to **enhance the financial viability and improve the technical maturity of project proposals** for submission to future Innovation Fund Calls (although not compulsory) or other EU funding requests, national grant preparation or financing from private sources.

Access
Route 2



OPEN PDA

- Project promoters who are interested in obtaining PDA support may **approach the EIB directly**.
- **Eligibility for the Innovation Fund is a prerequisite** for consideration of Open PDA.

**EXTENDED PDA
FROM 2024
ONWARDS**

- ✓ Applying or benefitting from PDA is **not dependent** on submitting an application to the Innovation Fund.
- ✓ Under the extended PDA process, **new sectoral and geographic targets are in place, and a larger number of projects will be supported.**

More information on EIB webpage:



European

**Innovation Fund -
Project Development**

Contact us directly at:
ifpda@eib.org

Blending Instruments

EU Catalyst Partnership

- The partners: European Commission (Innovation Fund, Horizon Europe), EIB, and Breakthrough Energy.
- The Funding:
 - Innovation Fund: contributes with EUR 220 million as a top-up to the InvestEU Programme
 - Horizon Europe: contributes with EUR 200 million in direct grants
 - EIB: contributes with venture debt supported by InvestEU and with equity financing
 - Breakthrough Energy: contributes with grants and equity
- Projects are selected and assessed by EIB and BreakthroughEnergy, and validated by the Commission.
- Five eligible sectors covered:
 1. Clean Hydrogen
 2. SAF
 3. LDES
 4. DAC & Carbon removal
 5. Decarbonisation of Industry.

EU Catalyst Partnership

- 2 Projects supported so far:



- . Project: Energy Dome Ottana Project
- . Location: Sardinia, Italy
- . Capacity: 20MW / 200MWh
- . Target Operations: ~Q3 2024

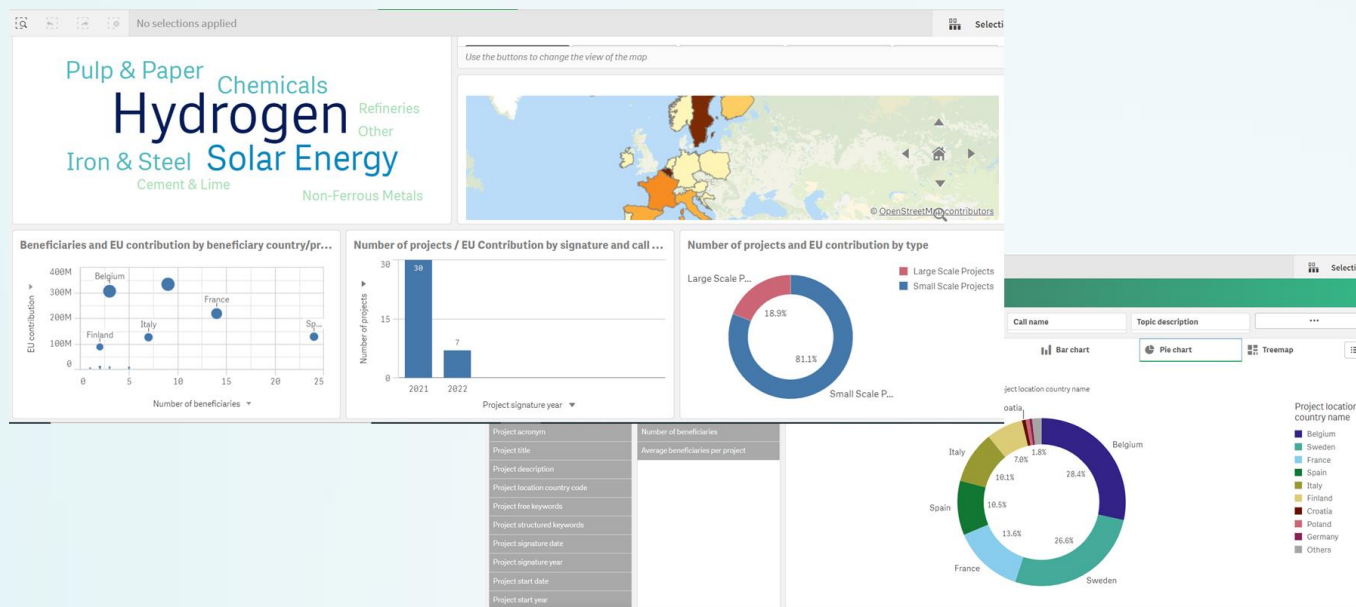
The project is being developed by Energy Dome, a leading long duration energy storage technology company based in Italy. The system will provide energy storage and grid services, with robust performance (high round-trip efficiency) and capex requirements that are more competitive than lithium-ion for utility-scale long duration energy storage.



- . Project: Three EU Projects
- . Location: Denmark, Germany, EU
- . Capacity: 100MWh Thermal Storage
- . Target Operations: ~2026 (all)

A portfolio of 3 projects are being developed by Rondo, an innovative heat storage company focused on decarbonizing industrial manufacturing by providing steam-as-a-service. The projects span 3 sites across the EU and will be deployed in different commercial settings demonstrating the versatility & effectiveness of the battery in reducing carbon emissions.

IF dashboard



Available on [CINEA's website](#)

More information



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>

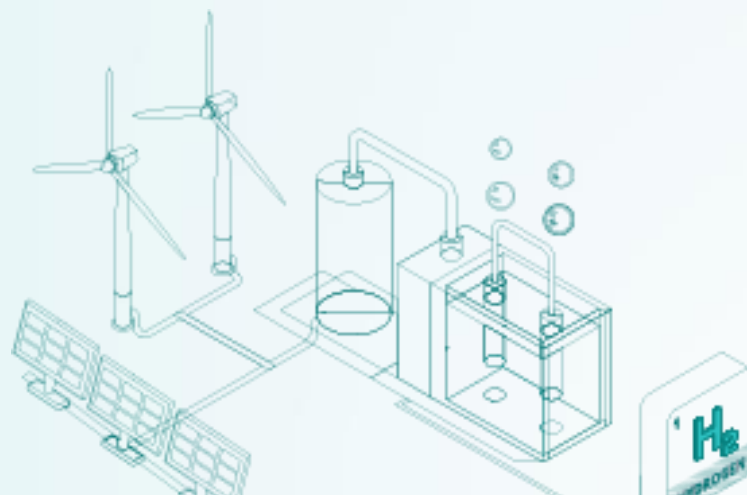


Further info, planning of new calls, recorded webinars and videos available on the IF Website:

<https://europa.eu/!rx34Dt>

And more videos available on YouTube:

<https://bit.ly/2WxK8w7>



Let's keep in touch



climate.ec.europa.eu

cinea.ec.europa.eu/programmes/innovation-fund_en



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