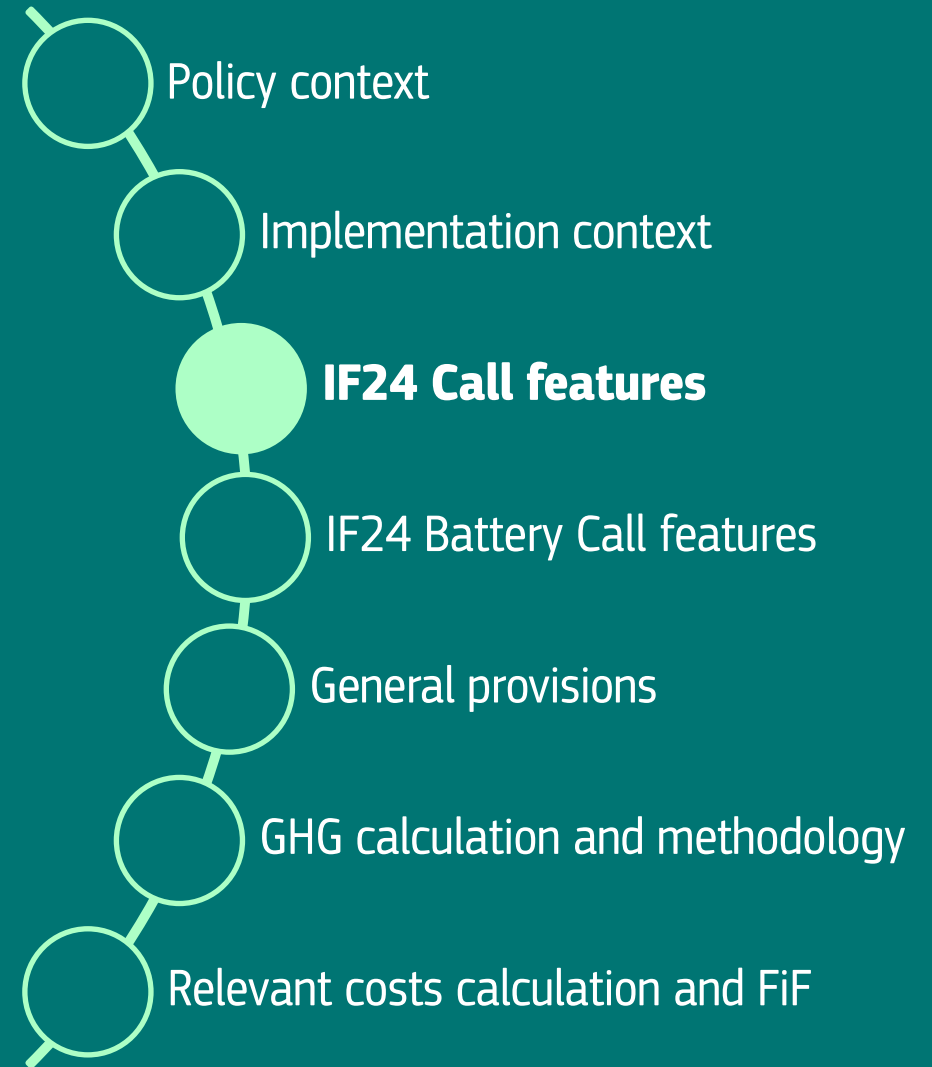


# IF24 Call features

Joao SERRANO GOMES, *Policy Officer*  
DG CLIMA, Low Carbon Solutions (II):  
Research & Low Carbon Technology  
Deployment CINEA



# IF24 Call in a nutshell



Launch 3 Dec. 2024

**Deadline 24 April 2025**

Results Q4 2025



**€2.4 billion for grants**

**Project Development Assistance**

**STEP Seal**

**New**

**Possibility of “Grants-as-a-Service”**



**Five topics**

## AWARD CRITERIA

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

Bonus points: Net Carbon Removals, Other GHG savings, electricity from additional RES, projects in the maritime sector

## 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



# Grants-as-a-Service (GaaS)

- **Growing pool of decarbonisation projects** that meet Innovation Fund criteria but cannot be funded due to budget limitations
- GaaS schemes will **increase the reach and impact of the Innovation Fund** by delivering a number of decarbonisation projects faster
- **Member States and companies benefit from an EU-level competition, less administrative effort, well-established selection process at the EU level and faster State aid clearance**
- Member States can express their interest for IF24 Call within 3 months from opening of the call



# Strategic Technologies for Europe Platform (STEP) Seal

- Benefits per programme:
  - **Cohesion policy funds (ERDF, CF, ESF+, JTF):** Possibility for Managing Authority to fast-track project (ERDF, ESF+) and grant combined support
  - **Recovery and Resilience Facility (RRF):** Project to be considered as a priority for funding under national Recovery and Resilience Plans
  - **Modernisation Fund:** Project may be considered as a priority for funding
  - **InvestEU:** To be taken into account by Commission in its 'policy check', and project to be examined by implementing partners
  - **Other Union funds or programmes:** Project could be granted (combined) support



# IF24 Call – Topics

| Topic                                   | Capital Expenditure                    | Topic budget    | Sectors covered                                                                                                                                                                                                                     |
|-----------------------------------------|----------------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Large-scale projects                    | above € 100 million                    | € 1 200 million | <ul style="list-style-type: none"> <li>Annex I and Annex III to the EU ETS Directive <u>2003/87</u>, including CCU</li> <li>CCS</li> <li>Renewable energy and energy storage technologies</li> <li>Maritime and aviation</li> </ul> |
| Medium-scale projects                   | between € 20 million and € 100 million | € 200 million   |                                                                                                                                                                                                                                     |
| Small-scale projects                    | between € 2.5 million and € 20 million | € 100 million   |                                                                                                                                                                                                                                     |
| Clean-tech manufacturing for components | above €2.5 million                     | € 700 million   | <ul style="list-style-type: none"> <li>Components for renewable energy installations</li> <li>Electrolysers and fuel cells</li> <li>Energy storage solutions</li> <li>Heat pumps</li> </ul>                                         |
| Pilot projects                          | above €2.5 million                     | € 200 million   | Validating, testing and optimising highly innovative, deep decarbonisation solutions in all sectors eligible for Innovation Fund support                                                                                            |

# IF24 Call award criteria

| Degree of Innovation                                                                                                                          | GHG emissions avoidance potential                                                                                              | Project maturity                                                                | Replicability                                                                                                                                                                    | Cost efficiency                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Innovation beyond state of the art at European level (except SSP – European or national level)</p> <p>! Consider ongoing IF projects !</p> | <p>Absolute emissions avoidance</p> <p>Relative emissions avoidance</p> <p>Quality of calculation and minimum requirements</p> | <p>Technical maturity</p> <p>Financial maturity</p> <p>Operational maturity</p> | <p>Efficiency gains and multiple environmental impacts</p> <p>Further deployment potential and technology transfer</p> <p>Europe's industrial leadership and competitiveness</p> | <p>Cost efficiency ratio (different formula for Pilot projects)</p> <p>Quality of the relevant cost calculation and minimum requirements</p> |

- Bonus points:
- 1) Net Carbon Removals
  - 2) Other GHG savings
  - 3) Electricity from additional RES or use of RFNBOs
  - 4) Maritime sector projects



# General Decarbonisation Topic(s)

## Objectives:

- Accelerate the decarbonisation of **sectors covered under the EU Emissions Trading System (EU ETS)**
- Promote **sustainable development and technological leadership** within Europe

## Activities that can be funded:

- Innovation in low-carbon technologies and processes, including **products substituting carbon-intensive ones**
- Safe capture and geological storage or utilisation of CO<sub>2</sub> (**CCS**)
- Innovative **renewable energy** and **energy storage technologies**



# General Decarbonisation Topic(s)

## Some eligibility aspects:

- Carbon capture and utilisation (CCU) can be funded if the captured CO<sub>2</sub> is from activities in Annex I of the EU ETS Directive, or if the utilisation of CO<sub>2</sub> results in products substituting carbon-intensive ones from the sectors listed in Annex I to the EU ETS Directive
- Hydrogen use in industry (i.e., hydrogen use as an energy carrier, reducing agent, or feedstock) and hydrogen production projects with a demonstrated sufficient degree of innovation can be funded
- Installation and operation of mature electrolyser technologies without additional relevant innovation are advised to apply to the **IF24 Auction for RFNBO Hydrogen**
- Support **to maritime** and **aviation** can be provided for innovative technologies, including **innovative infrastructure** in the maritime sector, notably for EU container transshipment ports
- Production and installation of new or retrofitted innovative technology into a ship or plane is eligible for funding provided that the manufacturing and/or installation is done in EU/EEA



# General Decarbonisation Topic(s)

Important aspects:

- Projects must **operate at least 5 years** after entry into operation or **at least 3 years** if small-scale or pilot
- Contribution to **building EU industrial capacity, technology leadership, supply chain resilience, and strategic autonomy**
  - assessed under Replicability award criterion
- **Relative GHG emission avoidance:** at least **50%**
- **Cost efficiency ratio:** max **€200/t CO<sub>2</sub>eq**
- **Simplification for small-scale projects:** degree of innovation can be at national level



# General Decarbonisation topic(s)

IF23 Call General Decarbonisation projects:

- **HERMES (LSP):** a hybrid electric regional aircraft in France
- **AdriatiCO2 (MSP):** permanent geological storage of CO<sub>2</sub> captured from a steel plant in Italy
- **FELIX (SSP):** fully electric furnace for production of high-quality perfumery glass in Spain



# General Decarbonisation Topic(s)

| Award criteria                                                               | Minimum pass score | Maximum score |
|------------------------------------------------------------------------------|--------------------|---------------|
| <b>Degree of innovation</b>                                                  | 9                  | 15            |
| <b>GHG emission avoidance potential</b>                                      |                    |               |
| • Absolute GHG emission avoidance                                            | n/a                | 2             |
| • Relative GHG emission avoidance                                            | n/a                | 5             |
| • Quality of the GHG emission avoidance calculation and minimum requirements | 3                  | 5             |
| Total GHG emission avoidance potential                                       | n/a                | 12            |
| <b>Project maturity</b>                                                      |                    |               |
| • Technical maturity                                                         | 3                  | 5             |
| • Financial maturity                                                         | 3                  | 5             |
| • Operational maturity                                                       | 3                  | 5             |
| Total Project maturity                                                       | n/a                | 15            |



# General Decarbonisation Topic(s)



New

| Award criteria                                                                     | Minimum pass score | Maximum score |
|------------------------------------------------------------------------------------|--------------------|---------------|
| <b>Replicability</b>                                                               |                    |               |
| • Replicability in terms of efficiency gains and of multiple environmental impacts | n/a                | 5             |
| • Replicability in terms of further deployment                                     | n/a                | 5             |
| • Contribution to Europe's industrial leadership and competitiveness               | n/a                | 5             |
| Total Replicability                                                                | n/a                | 15            |
| <b>Cost efficiency</b>                                                             |                    |               |
| • Cost efficiency ratio                                                            | n/a                | 12            |
| • Quality of the cost calculation and minimum requirements                         | 1.5                | 3             |
| Total Cost efficiency                                                              | n/a                | 15            |
| <b>Total (without bonus)</b>                                                       | n/a                | 72            |
| • Bonus point 1                                                                    | n/a                | 1             |
| • Bonus point 2                                                                    | n/a                | 1             |
| • Bonus point 3                                                                    | n/a                | 1             |
| • Bonus point 4                                                                    | n/a                | 1             |
| <b>Total (with bonus)</b>                                                          | n/a                | 76            |

# Clean-tech Manufacturing Topic

## Objectives:

- Foster **innovative manufacturing in Clean-tech** for hydrogen production/consumption, renewable energy, and energy storage
- Build industrial capacity, technology leadership, and supply chain resilience within the EU

## Activities that can be funded:

- Production of **components** for:
  - **Renewable energy** installations (e.g., wind, solar, geothermal)
  - **Electrolysers** and **fuel cells**
  - **Energy storage** solutions for stationary and mobile use for intra-day and long duration storage
  - **Heat pumps** for various uses



# Clean-tech Manufacturing Topic

## Important aspects

- Components: **the final equipment** such as wind turbines, solar panels, batteries, heat pumps or electrolyzers, as well as **sub-components** like nacelles or blades for wind turbines
- Targeting **components and materials (except mining activities) that are a significant factor** in the performance and/or cost of the final equipment
- **Recycling or reusing critical materials** used in the mentioned equipment or components is encouraged
- Components can be sold on the EU market and in third countries
- **Excluded activities:** demonstration of use of innovative components (including the final equipment) in power/heat generation/energy storage/production & consumption of hydrogen (submit those in General or Pilot topics)



# Clean-tech Manufacturing Topic

Important aspects (cont.)

- Emphasis on **degree of innovation, project maturity and contribution to Europe's industrial leadership and competitiveness**
- Innovation possible in **manufacturing/production processes** and/or **components or final products**
- **Financial close within two (2) years** and **entry into operation within four (4) years** may earn a higher score in project maturity
- Relative **GHG emission avoidance: min 50%**
- **Cost efficiency ratio: max 200 €/t CO<sub>2</sub>-eq**



# Innovative Clean-tech manufacturing

IF23 Call manufacturing projects:

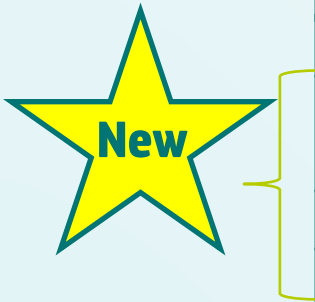
- **CircularSteam:** modular manufacturing plant to produce industrial high-temperature heat pumps
- **GRAND PIANO:** manufacture components for Proton Exchange Membrane and Anion Exchange Membrane electrolysis
- **HSS-Gen2:** plug & drive hydrogen storage system for commercial vehicles



# Clean-tech Manufacturing Topic

| Award criteria                                                               | Minimum pass score | Maximum score | Weight |
|------------------------------------------------------------------------------|--------------------|---------------|--------|
| <b>Degree of innovation</b>                                                  | 9                  | 15            | 2      |
| <b>GHG emission avoidance potential</b>                                      |                    |               |        |
| • Absolute GHG emission avoidance                                            | n/a                | 2             | 1      |
| • Relative GHG emission avoidance                                            | n/a                | 5             | 1      |
| • Quality of the GHG emission avoidance calculation and minimum requirements | 3                  | 5             | 1      |
| Total GHG emission avoidance potential                                       | n/a                | 12            | 1      |
| <b>Project maturity</b>                                                      |                    |               |        |
| • Technical maturity                                                         | 3                  | 5             | 2      |
| • Financial maturity                                                         | 3                  | 5             | 2      |
| • Operational maturity                                                       | 3                  | 5             | 2      |
| Total Project maturity                                                       | n/a                | 30            | n/a    |

# Clean-tech Manufacturing Topic



| Award criteria                                                                     | Minimum pass score | Maximum score | Weight |
|------------------------------------------------------------------------------------|--------------------|---------------|--------|
| <b>Replicability</b>                                                               |                    |               |        |
| • Replicability in terms of efficiency gains and of multiple environmental impacts | n/a                | 5             | 1      |
| • Replicability in terms of further deployment                                     | n/a                | 5             | 1      |
| • Contribution to Europe’s industrial leadership and competitiveness               | n/a                | 5             | 2      |
| Total Replicability                                                                | n/a                | 20            | n/a    |
| <b>Cost efficiency</b>                                                             |                    |               |        |
| • Cost efficiency ratio                                                            | n/a                | 12            | 1      |
| • Quality of the cost calculation and minimum requirements                         | 1.5                | 3             | 1      |
| Total Cost efficiency                                                              | n/a                | 15            | 1      |
| <b>Total (without bonus points)</b>                                                | n/a                | 107           | n/a    |
| • Bonus point 1                                                                    | n/a                | 1             | 1      |
| • Bonus point 2                                                                    | n/a                | 1             | 1      |
| • Bonus point 3                                                                    | n/a                | 1             | 1      |
| • Bonus point 4                                                                    | n/a                | 1             | 1      |
| <b>Total (with bonus points)</b>                                                   | n/a                | 111           | n/a    |

# Pilot Projects Topic

## Objectives:

- **Highly innovative, disruptive or breakthrough technologies** for deep decarbonisation needed for achieving the climate neutrality goal

## Activities that can be funded:

- Innovation in sectors listed in Annex I and Annex III to the EU ETS Directive 2003/87, including environmentally safe carbon capture and utilisation (**CCU**)
- **Products substituting carbon-intensive ones** produced in sectors listed in Annex I to the EU ETS
- Construction and operation of innovative **energy storage, CO<sub>2</sub> storage** and **renewable energy installations**, including electricity/heat grid connections



# Pilot Projects Topic

Important aspects:

- **Higher degree of innovation** is expected
  - Degree of Innovation: points are doubled
- Possibility to addressing technical risks linked to the innovative technologies, such as **optimising process and operational parameters**, and **enhance final product characteristics**
- Prove an **innovative technology** in an operational environment but are not expected yet to reach large-scale demonstration or commercial production
- **Limited production/operation** for testing purposes is possible but not required, including delivery to/from potential customers for validation



# Pilot Projects Topic

Important aspects (cont.):

- Demonstrate **Project viability** rather than project profitability
- Typically projects with **limited life-time (3-5 years)** and the technology should then move to large-scale demonstration or first-of-a-kind commercial production
  - To be demonstrated under the replicability award criterion
- Potential to be fully compatible with a 2050 climate neutrality objective, i.e., pilot installations should have minimal residual emissions or result in net carbon removals
  - **Relative GHG emission avoidance: min 75%**



# Pilot Projects Topic

Important aspects (cont.):

- **Financial close within two (2) years** and **entry into operation within four (4) years** may earn a higher score in project maturity
- Maximum grant: **€40 million**
- Min operation: **three (3) years after entry into operation**
- Less stringent requirements for **cost efficiency: max 2000 €/t CO<sub>2</sub>eq**



# Pilot Projects Topic

2023 call Pilot projects:

- **E02**: build the first low-emission commercial cargo ship fuelled by RNFB0 liquid hydrogen
- **eReform**: develop a novel electrified steam methane reforming plant to produce methanol from biogas
- **FloWatt**: build a tidal stream energy farm



# Pilot Projects Topic

| Award criteria                                                               | Minimum pass score | Maximum score | Weight |
|------------------------------------------------------------------------------|--------------------|---------------|--------|
| <b>Degree of innovation</b>                                                  | 9                  | 15            | 2      |
| <b>GHG emission avoidance potential</b>                                      |                    |               |        |
| • Absolute GHG emission avoidance                                            | n/a                | 2             | 1      |
| • Relative GHG emission avoidance                                            | n/a                | 5             | 1      |
| • Quality of the GHG emission avoidance calculation and minimum requirements | 3                  | 5             | 1      |
| Total GHG emission avoidance potential                                       | n/a                | 12            | n/a    |
| <b>Project maturity</b>                                                      |                    |               |        |
| • Technical maturity                                                         | 3                  | 5             | 1      |
| • Financial maturity                                                         | 3                  | 5             | 1      |
| • Operational maturity                                                       | 3                  | 5             | 1      |
| Total Project maturity                                                       | n/a                | 15            | n/a    |

# Pilot Projects Topic



| Award criteria                                                                   | Minimum pass score | Maximum score | Weight |
|----------------------------------------------------------------------------------|--------------------|---------------|--------|
| <b>Replicability</b>                                                             |                    |               |        |
| Replicability in terms of efficiency gains and of multiple environmental impacts | n/a                | 5             | 1      |
| Replicability in terms of further deployment                                     | n/a                | 5             | 1      |
| Contribution to Europe's industrial leadership and competitiveness               | n/a                | 5             | 1      |
| Total Replicability                                                              | n/a                | 15            | n/a    |
| <b>Cost efficiency</b>                                                           |                    |               |        |
| Cost efficiency ratio                                                            | n/a                | 12            | 1      |
| Quality of the cost calculation and minimum requirements                         | 1.5                | 3             | 1      |
| Total Cost efficiency                                                            | n/a                | 15            | n/a    |
| <b>Total (without bonus points)</b>                                              | n/a                | 87            | n/a    |
| Bonus point 1                                                                    | n/a                | 1             | 1      |
| Bonus point 2                                                                    | n/a                | 1             | 1      |
| Bonus point 3                                                                    | n/a                | 1             | 1      |
| Bonus point 4                                                                    | n/a                | 1             | 1      |
| <b>Total (with bonus points)</b>                                                 | n/a                | 91            | n/a    |

# IF Self-check Questionnaire

- Provide an early high-level orientation on potential fit and readiness of project ideas for the Innovation Fund
  - Entirely independent from the official Innovation Fund application and evaluation process
- Available [here](#)

