

## EU Innovation Fund National Info day

TEAM EU Funding:

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10. januar 2025









€1.2 BILLION







# National Info Day Agenda 9th January 2025

TEAM EU Funding

Olivia Thomsen, olrot@ens.dl

Claus H Andersen, clhka@ens.dl

**12:40-12:50** Welcome and introduction

Claus H. Andersen Head of Team EU Funding

Danish Energy Agency

**12:50-14:30** Overview of EU Innovation Fund

IF24 calls for net-zero technologies

and for batteries

IF24 Auction for renewable

hydrogen

Award criteria, lessons learned and

best practices

Roman Doubrava

Head of Unit Innovation Fund – CINEA

Ewelina Daniel

Policy Officer

European Commission – DG CLIMA

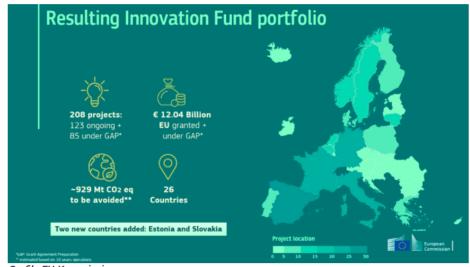
**Christophe Dehout** 

Head of Sector Financial Engineering – CINEA

**14:30-15:30** Q&A with CINEA

Danish Energy Agency 9. Januar 2025 Side 2

#### Danish results INNOVFUND '23



Grafik: EU-Kommissionen

7 danske projekter er udvalgt til at indgå aftale om støtte til nye innovative klima- og energiteknologier via EU's Innovationsfond 2023. Projekterne vil få i alt 464 millioner euro i støtte – svarende til 3,5 milliarder kroner – til løsninger, der sammenlagt skal kunne fortrænge over 33 millioner ton CO2 over 10 år.

De danske projekter, der har fået støtte er:

Projekt	Type	Koordinator
GreenWave	Storskalaprojekt	European Energy A/S
ACCSION	Storskalaprojekt	Aalborg Portland A/S
<b>Greensand Future</b>	Mellemstort projekt	INEOS E&P A/S
NEMO	Manufacturing	Siemens Gamesa Renewable Energy A/S
H2-GIGA	Manufacturing	HydrogenPro A/S
PIVOT	Pilotprojekt	Siemens Gamesa Renewable Energy A/S
CASTRO	Pilotprojekt	VESTAS WIND SYSTEMS A/S

Danish Energy Agency 9. Januar 2025 Side 3

### **DEA Support** | The DEA provides a range of support for Danish projects applying to the EU Innovation Fund

EU Innovation Fund Masterclasses Validation Assessments National Info Day with CINEA

Financial support for project applications

Webinars to help equip interested candidates with relevant knowledge on the EU Innovation Fund

Up to 30-hours of DEAsponsored assessment by advisors at Implement Consulting Group Full day with speakers from CINEA and the opportunity for 1-on-1 sessions with a CINEA representative

Apply to DEA for financial support for up to 500.000 DKK, covering up to 50 % of costs of preparing your EU Innovation Fund application. The support fund will open primo 2025.

Danish Energy Agency 9. Januar 2025 Side 4

### Innovation Fund 2024 calls Info Day

Copenhagen, 9 January 2025

Ewelina Daniel, Policy Officer, European Commission, DG CLIMA Christophe Dehout, Head of Sector Financial Engineering, CINEA Roman Doubrava, Head of Unit Innovation Fund, CINEA



### Agenda

- Innovation Fund and portfolio
- IF24 Call Features
- IF24 Batteries call features
- IF24 call and IF24 Batteries call general provisions
- IF24 call and IF24 Batteries call award criteria
- IF24 H2 Auction features
- new Resilience requirements
- IF24 H2 Auction award criteria
- IF24 H2 Auction application process and requirements



### The Innovation Fund





### **INNOVATION FUND**

Funded by the EU Emissions Trading System

Deploying innovative net-zero technologies for climate neutrality



€40 billion\* available between 2020-2030





grants awarded through regular calls and auctions



avoid GHG emissions, boost competitiveness







**Energy-intensive** industries



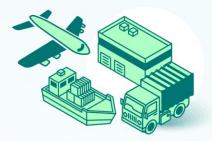
Renewable energy



Energy storage

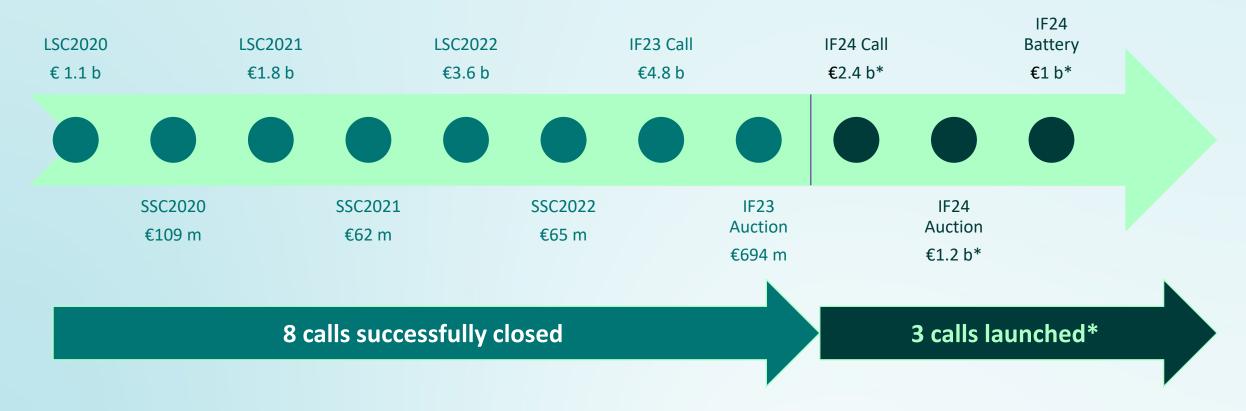


Carbon capture, use and storage



**Net-zero mobility** and buildings

#### IF calls - Evolution





### Innovation Fund portfolio



208 projects
123 ongoing
85 under
GAP\*

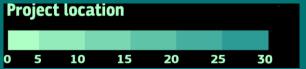


**€12.04 billion** granted + under GAP\*



~929 Mt CO<sub>2</sub>eq to be avoided\*\*





<sup>\*</sup>Grant Agreement Preparation

<sup>\*\*</sup>estimated based on 10 years of operations

#### Denmark

Ongoing projects + IF23 Selected projects



10 Projects<sup>1</sup> (3 ongoing + 7 selected)

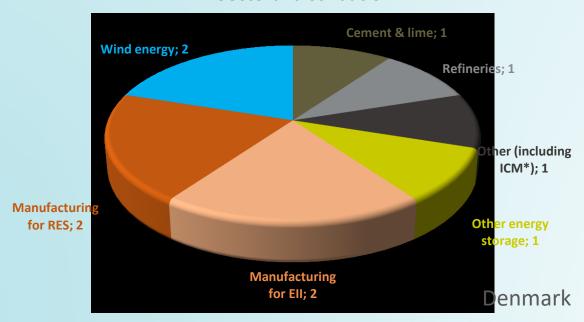


592.6 million € EU contribution



41.3 MtCO<sub>2</sub> eq first 10 years

#### Sectoral distribution







### 2024 funding opportunities



#### **IF24 Auction**

RFNBO Hydrogen
3 Dec 2024 – 20 Feb 2025
Budget: €1.2 billion



#### IF24 Call

General, Clean-tech, Pilots

3 Dec 2024 – 24 April 2025

Budget: €2.4 billion



#### **IF24 Batteries**

Manufacturing of electric vehicle battery cell

3 Dec 2024 – 24 April 2025

Budget: €1 billion

# 2024 IF calls - EU Info Days - full presentations and recordings are available

#### **IF24** Auction

- Presentations and recording available on the <u>CINEA</u> <u>website</u>
- Apply on <u>F&T</u> portal

#### IF24 Call

- Presentations, recording and guidelines available on the <u>CINEA</u> website
- Apply on <u>F&T</u> portal
- Additional guidelines

#### **IF24 Battery**

- Presentations, recording and guidelines available on the <u>CINEA</u> website
- Apply on <u>F&T</u> portal



### IF24 Call - features



#### 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** 

+

Possibility of "Grants-as-a-Service"



**Low-carbon innovations - 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 o

### IF24 Call – 5 Topics

Topic	Capital Expenditure	Topic budget	Sectors covered
Large-scale projects	above € 100 million	€ 1 200 million	Annex I and Annex III to the EU ETS
Medium-scale projects	between € 20 million and € 100 million	€ 200 million	<ul><li>Directive 2003/87, including CCU</li><li>CCS</li></ul>
Small-scale projects	between € 2.5 million and € 20 million	€ 100 million	<ul> <li>Renewable energy and energy storage technologies</li> <li>Maritime and aviation</li> </ul>
Clean-tech manufacturing for components	above €2.5 million	€ 700 million	<ul> <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

#### 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



### IF24 Batteries Call - features



#### Political context

- The Commission will support manufacturing of the "most sustainable [EV] batteries in Member States" through "a dedicated instrument under the Innovation Fund [...]" with "up to €3 billion for the next three years"\*
- Difficult situation of the battery manufacturing sector in Europe and risk of dependency on foreign imports
- Implementation of the Battery Regulation
- Stakeholders largely in favour of "regular" grants with more flexible payment schedule & possibility of combined support
- Strong interest in additional lending & venture debt possibilities
- Indication of solid project pipelines during consultation (79 battery manufacturing projects, 35 on cells manufacturing)

<sup>\*</sup>EVP Šefčovič announcement relating the EU-UK Trade and Cooperation Agreement), Dec 202

#### IF24 Batteries Call in a nutshell



Launch 3 Dec. 2024 **Deadline 24 April 2025**Results Q4 2025 or earlier



**€1** billion for grants

Project Development Assistance (PDA)

**STEP Seal** 



Manufacturing of electric vehicle battery cell



#### **AWARD CRITERIA**

- Degree of innovation
- GHG emission avoidance
- **(NEW)** Manufacturing carbon footprint
- Project maturity
- Replicability
- (NEW) Security of supply and countering dependency

#### **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

# IF24 Call and IF24 Batteries Call General provisions



### Which call should you apply for?

### IF24 Call: Lump sum call for Net-Zero Technologies

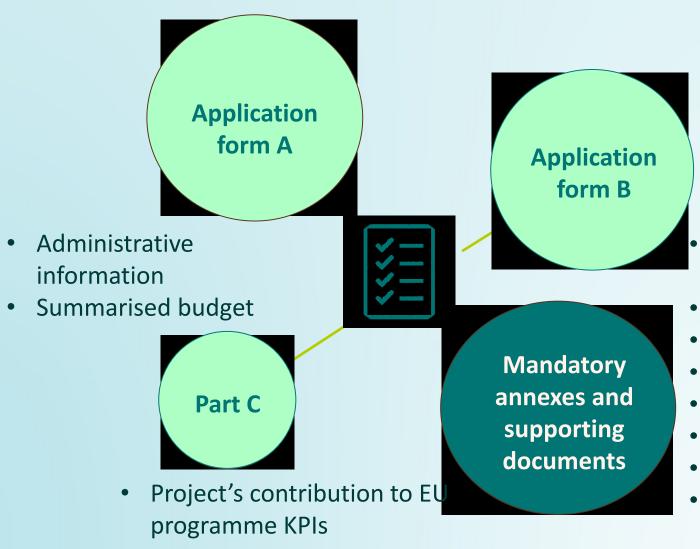
- Innovative commercialisation, demonstration, pilot plant or scale up of technologies, business models and processes that reduce GHG emissions
- Production of batteries for stationary storage
- Batteries applications (e.g., EV production)
- Assembly projects (e.g., battery packs or modules)
- (standalone) Batteries components manufacturing
- (standalone) Batteries Recycling activities

#### IF24 Batteries: Lump sum call for

 Manufacturing of electric vehicle battery cells (also combined with components manufacturing or recycling)



### Call text and mandatory documentation



IF24 Call and IF24 Batteries call texts on Funding and Tenders Portal

- Technical description
- Up to 70 pages
- Detailed budget table/relevant cost calculator
- Participant information
- Timetable/Gantt chart
- GHG emission avoidance calculator
- Feasibility study
- Business plan
- Detailed financial model
- Project shareholders' financial resources
- Extended Part C form



### How to apply?

#### **Tutorials**

CINEA produces a series of tutorials to help you throughout the application process

Where to find useful information (coming soon)	Application process	How to fill in PART C (coming soon)	Financial Information File (coming soon)
Introduction to Business Plan template and lessons learned on financial maturity (coming soon)	The extra file for data collection (coming soon)	GHG methodology calculation tutorials (coming soon)	

#### GHG Methodology videos.

Find here a set of videos on the overview and guidance on the GHG calculations for each project category.

Main principles and step- by-step of the GHG calculation	Section 2: Energy Intensive Industries (EII)	Section 3: Renewable Energy Sources (RES)	Section 4: Energy Storage (ES)
Section 5: Mobility (MOB)	Section 6: Credit for carbon capture and storage (CCS) or utilisation (CCU)	Section 7: Batteries (BATT)	

#### Supporting documents

Still have doubts? Check out the <u>Frequently Asked Questions section</u> on the Funding and Tenders Portal. If you still need further assistance, don't hesitate to contact the <u>Innovation Funding Helpdesk.</u>

#### Check all relevant information to apply

- Funding and Tenders Portal link
- CINEA website:
  - Where to find useful information tutorial (coming soon)
  - Application process tutorial
  - How to fill in PART C and the extended Part C form (coming soon)
  - Financial Information File tutorial (coming soon)
  - Introduction to Business Plan template & Lessons Learned on Financial Maturity (coming soon)
  - GHG methodology calculation: tutorials (coming soon)
  - GHG methodology: videos
- <u>Info Day recording and slides</u> (available after the event)
- Frequently Asked Questions
- Helpdesk



### Admissibility and eligibility criteria

#### Admissibility:

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

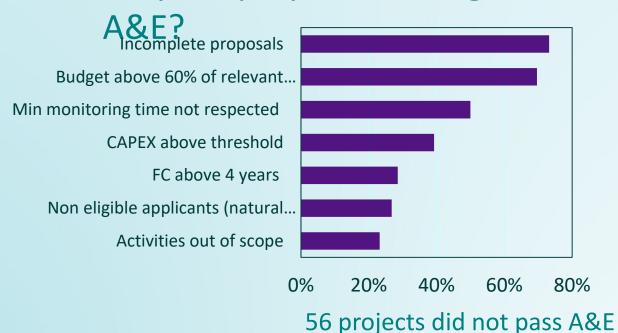
#### Eligibility:

- 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 four years after grant signature (maximum time to financial close)
  - Operate at least (minimum GHG emission avoidance monitoring period) five years after entry into operation (except PILOTS, SSP, and BATT call projects)
- BATT call projects and IF24 SSP and PILOT projects operate at least three years after entry into operation
- Project budget: the maximum grant amount must not exceed 60% of the relevant costs
- Eligible activities

### Lesson Learned: Admissibility and Eligibility

IF23 Call

#### Why are proposals failing



### Most common mistakes from incomplete proposals:

- Relevant cost calculator missing
- Part B not fully completed
- Detailed financial model missing
- · Business plan missing
- GHG calculator missing
- Feasibility study missing
- Gantt chart missing
- Knowledge sharing plan missing

#### Follow the call text guidance precisely

- Provide all requested documents to be admissible
- Watch budget limits



## Award criteria

IF24 Call and IF24 Batteries Call



## Award Criteria (IF24 Call and IF24 Batteries

- Degree of Innovation
- GHG emission avoidance potential
- Manufacturing carbon footprint (IF24 BATT Call only)
- Project maturity
  - Technical maturity
  - Financial maturity and cost efficiency
  - Operational maturity
- Replicability
  - Efficiency gains and of multiple environmental impacts
  - Further deployment
  - Contribution to Europe's industrial leadership and competitiveness (incl. specific requirements for IF24 BATT call)
- Cost efficiency
- Security of supply and countering dependency (IF24 BATT Call only)
- Bonus points (IF24 call only)
  - Bonus 1 and 2: net carbon removals and other GHG savings
  - Bonus 3: use of additional renewable energy or RFNBOs
  - Bonus 4: for maritime sector projects



### Degree of Innovation

IF24 Call and IF24 Batteries Call



### Degree of Innovation



- Application form, Part B
  - Section 1: Degree of innovation
    - Innovation in relation to the state of the art
    - Innovation beyond the state of the art
- Any due diligence report (if any)
- Feasibility study (<u>mandatory document</u>)

A template for the Feasibility study is available in the Submission System (under "Part B templates").

Template recommended to be used - if not used, provide at least the same level of detail and information to ensure a assessment

#### Degree of Innovation: types of innovative actions

The Innovation Fund aims to support <u>technologies</u>, <u>business models</u> and <u>processes</u> that are not yet commercially available:

- First-of-a-kind commercialisation or large-scale commercial size demonstration of technologies, processes or business models previously proven at pilot or smaller scale, or large-scale demonstration plants
- A second or more of a kind commercialisation, under certain conditions. In particular, where the
  relevant costs remain a significant share of total costs that prohibit commercialisation without further
  public support. Innovation beyond incremental must still be demonstrated
- Innovative smaller demonstrations or pilot plants, especially if this is the right scale at which technology needs to be proven before moving to a larger scale demonstration
- Projects aimed at demonstrated scaling up of innovative techniques, processes and technologies for their broad roll-out, which contribute significantly to the decarbonisation of the IF sectors



# Degree of Innovation (DoI) – IF 24 Batteries call

#### addressing scale-up challenges

**Scaling-up** of existing technologies explicitly encouraged:

- Lower scoring weight on Dol than in IF24 NZT Call
- Cells manufacturing does not need to be "first-of-a-kind"
- Range of options to show innovation beyond new battery chemistries, e.g.:
  - Product performance (e.g. battery lifetime, energy density, fast charging, uniqueness of technology, etc.)
  - Manufacturing process
  - Reduced use of raw materials / increased circularity



# Degree of Innovation for topic General – IF24 SSP

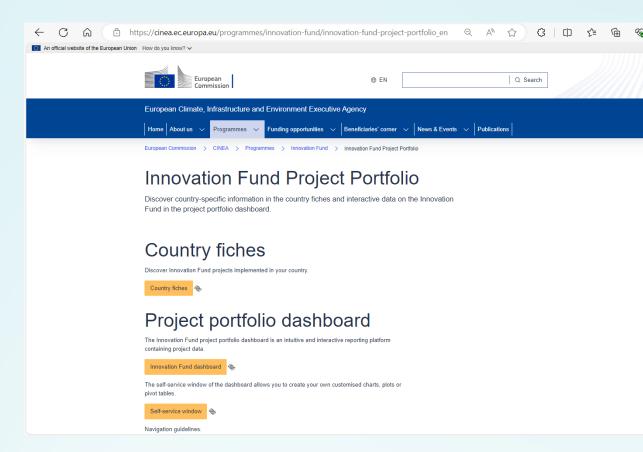
#### Innovation at national level:

- For small-scale projects (INNOVFUND-2024-NZT-GENERAL-SSP), the reference point can be at European or national level
- For innovations at national level: the geographical reference of the state of the art must be the country where the project will be implemented. The proposal should demonstrate how it goes beyond this national state-of-theart
- Proposals going beyond state of the art at national level can meet the minimum threshold of this criterion; however, if a proposal is also going beyond the state of the art at European level, it may receive a higher score



### References to Innovation Fund projects

- Proposals focusing on innovations similar to the ones of ongoing Innovation Fund projects, must clearly justify where the new innovative elements lie
- Such projects may receive a lower score
- Consult the list of funded Innovation Fund projects (<u>Innovation Fund</u> <u>Project Portfolio Dashboard</u>)

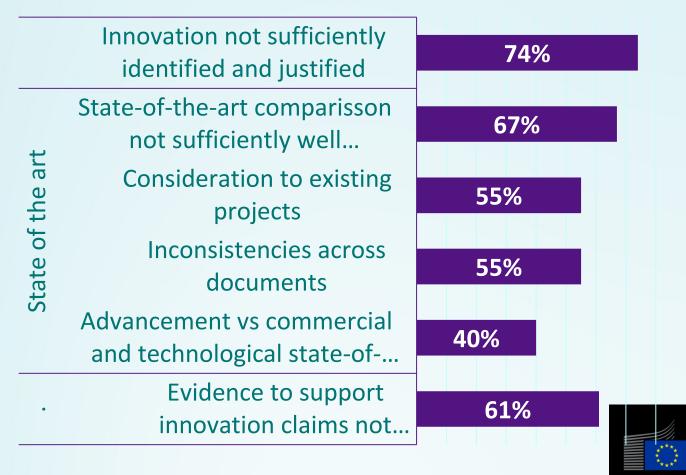


# Degree of Innovation: Lessons Learned IF23 Call

#### **Key reasons for failure:**

- Innovation not sufficiently identified and justified with credible evidence
- State of the art not sufficiently well elaborated
- Inconsistencies across documents

### Out of 12 proposals failing under Degree of Innovation, the main reasons are:



# GHG emission avoidance potential

IF24 call and IF24 Batteries call



#### GHG emission avoidance potential



- Application form, Part B, sections:
  - Section 2: GHG emission avoidance potential
    - 2.1 Absolute GHG emission avoidance
    - 2.2 Relative GHG emission avoidance
    - 2.3 Minimum requirements
- GHG emissions avoidance calculator (mandatory annex)
- For BATT call, see specific section of GHG methodology

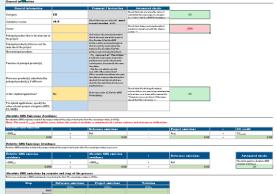


### GHG emission avoidance potential (1)

- Absolute GHG emission avoidance: difference between the expected GHG emissions of the proposed project and the GHG emissions in the reference scenario during 10 years after entry into operation
- Relative GHG emission avoidance: absolute GHG emission avoidance divided by the GHG emissions in the reference scenario over the same 10 years period

#### The calculation must be done:

- using the relevant GHG emission avoidance calculator
- following the <u>Methodology for GHG Emission Avoidance</u> Calculation







### GHG emission avoidance potential (2)

- Quality of the GHG emission avoidance calculation and minimum requirements
- When relevant, the proposal should demonstrate whether the proposed project meets or not the minimum requirements (IF24 call only):
  - For projects producing products with an EU ETS benchmark: the process emissions of the project per unit of product must be below the EU ETS benchmark(s) applicable at the call deadline
  - For projects using biomass feedstocks: the biomass used will at least meet the sustainability requirements of the Renewable Energy Directive
- For all projects: the relative GHG emission avoidance must be:
  - for BATT and IF24 call all topics except INNOVFUND-2024-NZT-PILOTS: at least 50%
  - for INNOVFUND-2024-NZT-PILOTS topic: at least 75%
- Proposals not meeting minimum requirements will be rejected!





#### Guidelines and support for GHG Calculation

Supporting documents

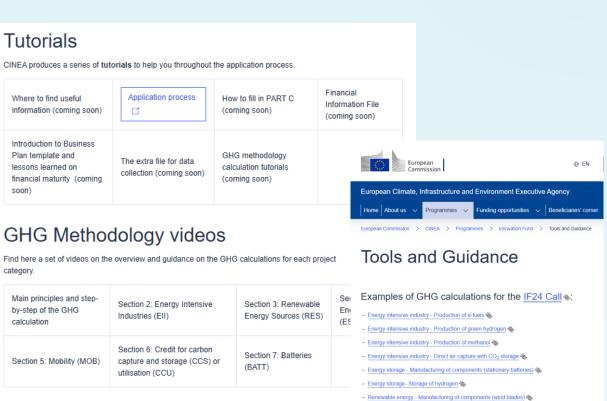
Helpdesk

To complete the GHG Methodology tutorial and help you with your proposal, templates and

Still have doubts? Check out the Frequently Asked Questions section on the Funding and Tenders Portal. If you still need further assistance, don't hesitate to contact the Innovation Fund

examples of GHG calculations are available through the following link .

- Methodology for GHG Emission Avoidance Calculation
- Recordings on the GHG methodology
- An updated set of filled examples in the templates
- Tutorial on how to fill in the GHG
   Calculators (coming soon)



- Renewable energy - Use of renewable energy outside Annex I 6

- Net-zero mobility and buildings - Aviation plus modal switch 6

#### Lessons learned IF23 Call

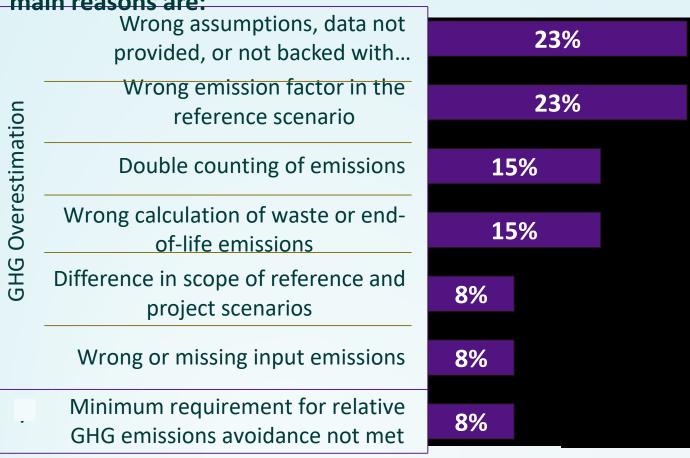
#### Quality of GHG calculation and min. requirements

# Main mistakes on GHG emissions avoidance quality

- Poor assumptions
- Wrong emission factor
- Double counting of emissions
- Wrong calculations

Resulting in overestimations of GHG emissions avoidance

Out of 11 proposals failing quality of GHG calculation, the main reasons are:



## Manufacturing carbon footprint

IF24 Batteries call only



#### Manufacturing carbon footprint

Methodology for GHG emission avoidance calculation for projects applying under the INNOVFUND-2024-BATT CALL

Absolute and relative GHG emission avoidance



**Manufacturing carbon footprint reduction** 

Standardised battery manufacturing reference

**Project's**manufacturing
emissions

Raw materials, components production, cell production



### Manufacturing carbon footprint

Included in the methodology for GHG emission avoidance calculation

Mandatory project scope

EV battery cells production

Optional additional project scope

Upstream component production\*

Battery or battery recycling material\*

Outside project scope

Mining, processing and refining

Upstream components imported into the project

Battery module and pack production

Not included in the methodology for GHG emission avoidance calculation

Outside project scope

Upstream
component
production // battery
or battery recycling
material exceeding
100% of the project's
battery cell
production capacity

\*Not exceeding 100% of the project's battery cell production capacity



## **Project Maturity**

IF24 Call and IF24 Batteries Call

Technical maturity
Financial maturity
Operational maturity



## Technical Maturity



### **Technical Maturity**



- Application form, Part B, sections:
  - Section 0: Technical characteristics and scope and Technology scope
  - 4.1 Technical maturity (explain the degree of <u>technology readiness</u> of the proposed solution and the <u>technical feasibility of delivering the expected output (e.g. in terms of quality and volume of the products)</u>
- Feasibility study (mandatory annex)
- Any due diligence report (if any)



#### Risk analysis and management

Risks are included **only** in the Feasibility Study (mandatory annex) which

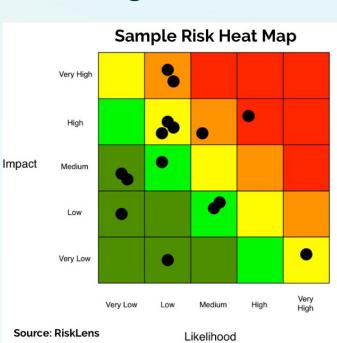
 Describe <u>key risks</u> that could impact the technical feasibility of the <u>proposed</u> technology/process

Describe the <u>impact</u> if the risk materializes and the proposed risk <u>mitigation</u>

measures and explain why they are suitable

• Summarize your analysis in a <u>table</u> (see template)

Provide a <u>risk heat map</u>



### Technical Maturity: Lessons Learned IF23 Call

#### **Key reasons for failure:**

Technical feasibility claims not sufficiently supported by:

- Proper identification of risks and mitigation measures
- Credible data and evidence
- Detailed strategies to achieve targets

#### Out of 29 proposals failing technical maturity, the main reasons are:

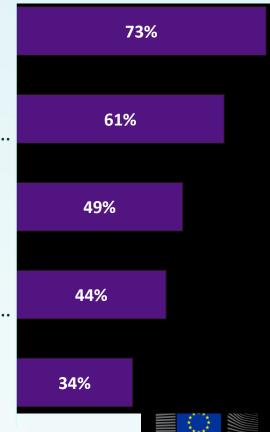
Technical risks and their mitigation strategies either not sufficiently...

Technical feasibility not sufficiently demonstrated by clear, detailed and...

Claimed technology readiness not sufficiently supported by evidence

Strengthening engineering foundations: based on system...

Proposal clarity and level of detail not sufficiently elaborated and or...



## Financial Maturity



#### Financial Maturity: Key points

Objective: assess the project's ability to reach Financial Close as soon as possible and within 4 years

Project business plan and profitability

Soundness of the financing plan

**Commitment of project funders** 

Understanding of project business and financial risks



### Financial Maturity: Key points

#### **Objective: ability to reach Financial Close within 4 years**

Business plan (mandatory annex)

New template to be used: available in the Submission System (under "Part B templates") If not used, provide the same level detail and information



Financial maturity (section 4.2): summary of information submitted in the business plan annex

Risk management (section 4.4): leave blank as information is already filled in business plan annex

Work packages, activities, resources and timing (section 9.2)

Financial Information File ('FIF') / detailed financial model

**To be filled completely -** includes the Relevant cost calculator, the financial model Sheet, the grant drawdown schedule and the cost efficiency calculation, Application Financial Model (xls)



### Financial Maturity: Key points

#### **Objective: ability to reach Financial Close within 4 years**

Project shareholders' financial resources

Financial statements of project shareholders over last 3 years (if available)

**Project funding support (supporting documents)** 

Minimum requirements in call text Annex 3; Confirmation of funding support is essential for proposals with low profitability

**Project contract terms (supporting documents)** 

Minimum requirements in call text Annex 3

Any existing due diligence report (optional)





#### Results per evaluation criterion: IF23 Call

Out of 281 evaluated proposals, 85 were pre-selected for funding, 64 additional projects cannot be funded due to lack of budget

**Operational Maturity** 

Replicability

Cost efficiency

Failure rate for all eligible proposals\*

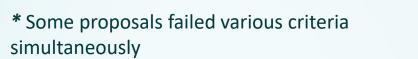
- Demonstrating financial maturity is the most challenging step of the evaluation process
- All proposals that reached the replicability assessment

Innovation
GHG
4%
Technical Maturity
Financial Maturity
37%

7%

10%

20%



0%

0%



40%

30%

#### Main issues with the Business Plan

Lessons Learned IF23 Call

Most issues related to **business plan** refer to:

- Revenues: credibility and justification of prices, volumes
- CAPEX:
  - Justification missing,
  - No detailed breakdown,
  - Lack of evidence (including quotes from engineering and

construction contractors

### Out of 84 proposals, the main issues with the business plan are:

Important elements of revenues not credible

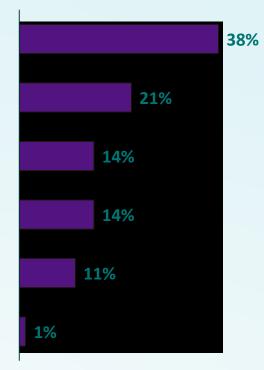
Important elements of CAPEX not credible

Important elements of OPEX not credible

Strategy to secure contracts not credible

Business model / concept not credible

Project boundaries not consistenly defined





- Fully describe, substantiate and evidence the main revenues, CAPEX and OPEX assumptions and include a detailed breakdown and description of prices and volumes
- See Annex 3 of call text for minimum requirements on project contract terms



#### Main issues with the Financing Plan:

Lessons Learned IF23 Call

#### Main issues with **financing strategy**

- Ability to secure the required funding
- Commitment of shareholders
- Expected timing
- Steps to reach final investment decision
- Other issues related to debt assumptions (for instance debt repayment capacity)

Unidentified or missing funding sources

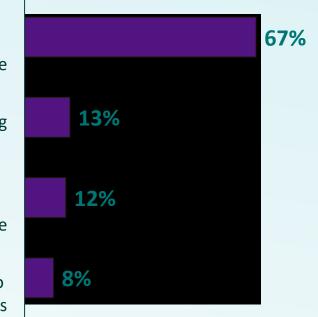
Out of 84 proposals, the main issues with the financing plan are:

Financing strategy and ability of shareholders to inject funds not credible

Business plan not fully funded (Unidentified or missing financing sources)

Debt assumptions not credible

Lack of commitment of shareholders to support project with low project returns





- Clearly **identify all funding sources** with their terms and conditions and the progress made in defining and/or negotiating them with funding counterparts.
- Provide financial statements of the shareholder entities



#### 7 Golden Rules of Financial Maturity

1. Ensure concrete evidence of the commitment from each project funder, in particular if your project is not profitable (NPV<0)

7. Provide evidence (main project contracts and financing agreements)

6. Identify & provide <u>effective</u> mitigation measures for key risks and add a sensitivity analysis

Financial maturity

2. Check Business Plan assumptions, their detailed break down and credibility (the more evidence, the better)

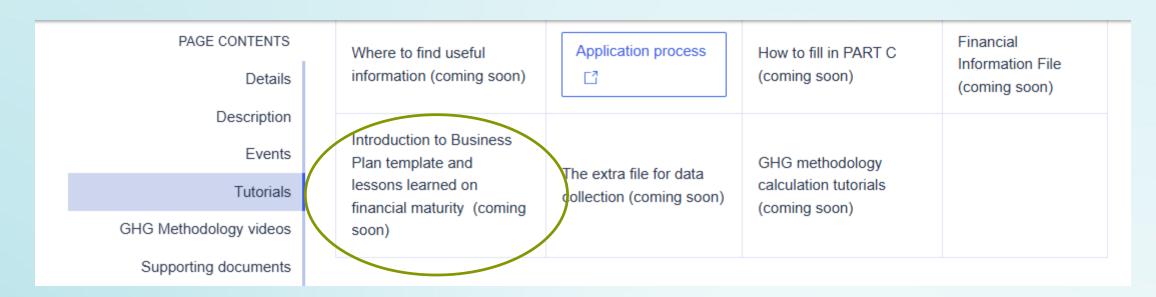
3. Make sure your financing plan is robust enough (sources clearly identified with concrete evidence)

5. Ensure consistency across all application documents

4. Follow our guidance on how to calculate your project WACC



### Financial Maturity tutorials (coming soon)





#### Check out:

https://cinea.ec.europa.eu/fundingopportunities/calls-proposals/innovationfund-2024-call-and-batterycalls\_en#tutorials



## Cost efficiency



#### Cost efficiency

(\*)

Requested Innovation Fund grant + other public support (\*)

## Absolute GHG emission avoidance

During 10 years after entry into operation

Maximum requested IF grant is 60% of total relevant costs

Applicants choosing not to apply for the maximum grant will be more competitive when ranked against other applicants in 'cost per unit performance' metric

- If other public support is included in the **project's financial model**, it <u>must</u> be added in the **numerator of the Cost efficiency** formula. Public support already secured <u>must</u> be included. Public support that is not secured up to the applicant if it is included in the financial model/CE.
- For public support received during operation, the rule is to add the undiscounted amount that will be obtained the first ten years of operation.
- Some forms of State aid such as taxes or tariff reductions can only be reflected in the Relevant Costs

#### Cost efficiency: key points

- Cost efficiency is split in two sub-criteria:
  - Cost efficiency ratio based automatic score
  - Qualitative assessment on how the computation of Cost Efficiency ratio was made
- Cost efficiency ratio level has minimum requirement (except for Pilots):
  - (a) For IF24 call all topics except Pilots and for BATT call:
  - If cost efficiency ratio is lower than or equal to €200/tCO₂eq, score will be based on formula:
    - 12 (12 x (cost efficiency ratio/200) for IF24 call
    - 3 (3 x (cost efficiency ratio/200) for BATT call
  - If cost efficiency ratio is higher than €200/tCO<sub>2</sub>eq, proposal will be rejected (i.e. not considered for funding)

#### (b) for IF24 call Pilots:

- If cost efficiency ratio is lower than or equal to €2000/tCO<sub>2</sub>eq, score will be based on formula
   12 (12 x (cost efficiency ratio/2000)
- If cost efficiency ratio is higher than €2000/tCO<sub>2</sub>eq, proposal gets zero score but is NOT rejected

## Relevant cost calculation



# Relevant Cost: What has changed since the IF23 Call?

- Further guidance specific to maritime and aviation projects
  - Two examples in the RC methodology guidance for projects which produce or install innovative technology (for example engine or equipment) into a new or retrofitted ship or plane
  - Projects using financial leases to fund the construction of newbuilt ships or planes
- Clarification on maintenance CAPEX
- Clarification on possibility to combine sheets from detailed financial model and Financial information File (FIF)
- Clarification on the calculation of Relevant Costs if entry into operation date does not coincide with the start of a calendar year
- Update of Appendix with support data materials for the WACC calculation

## Key principles: Which methodology should applicants use?

No reference plant: default methodology, recommended for all projects

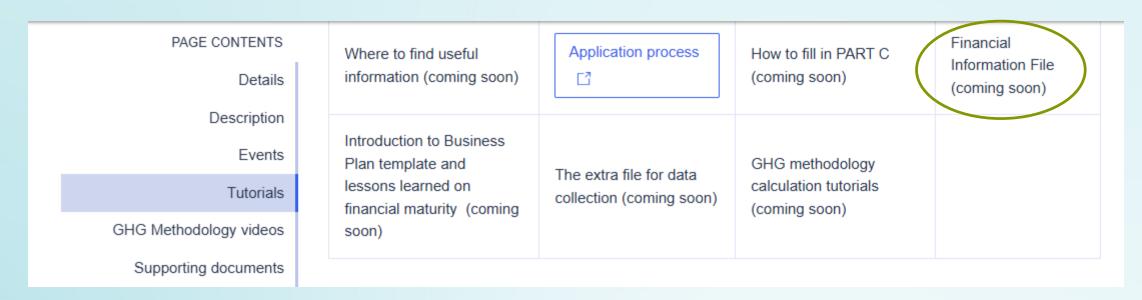
Reference plant: "fall-back" option if the project fulfils the following conditions:

- The project relates to the construction of a completely new plant/unit. Add-ons to existing or new installations must use the No Reference Plant Methodology
- The reference plant has the similar characteristics (output, capacity) as the Project plant
- The reference plant complies with the European Union environmental standards and with EU legislation, including the EU ETS benchmark for industrial products where relevant
- Applicants must provide documents necessary to assess the credibility of the financial and technical data of the reference plant, such as: proof of planning of such a (reference) plant/unit as an alternative to the project, formal board documents, financial reports, internal business plans or studies
- A complete and detailed set of verifiable financial projections is added to the Applicant's detailed financial model (mandatory)

#### Relevant Cost – General tips

- Compute the relevant cost as early as possible, using the right methodology to see if your project can get a grant
- Contingencies should always be justified
- Read carefully which costs are eligible and which are not
- Pay attention that entry into operation is based on the last phase of your project
- Ensure the coherence of data between the FIF, your own financial model and the business plan

### FIF tutorial (coming soon)





#### Check it out:

https://cinea.ec.europa.eu/fundingopportunities/calls-proposals/innovation-fund-2024-call-and-battery-calls en#tutorials



## Operational Maturity

IF24 call and IF24 batteries call



#### Project Maturity: Operational Maturity



- Application form, Part B, sections:
  - 4.3 Operational maturity
  - 9.1 Work Plan
  - 9.2 Work Packages, activities, resources and timing
- Timetable-Gantt chart (mandatory document)
- Participant information, including CVs and previous projects, if any (mandatory document)
- Feasibility Study (<u>mandatory document</u>)
- Due diligence report (if any)
- Permits, licences, authorisations (if any)



#### **Operational Maturity**



Operational risks and credibility of proposed mitigation measures



Risks are included **only** in the Feasibility Study and Business plan (mandatory documents) which must:

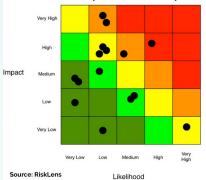
 Describe the <u>main operational risks</u> associated with the construction (for example timing), project design, operation (for example weather conditions) and decommissioning, or risks stemming from dependencies from other projects relevant to the project

Describe the <u>impact</u> if the risk materializes and the proposed risk mitigation measures and

explain why they are suitable

Summarize your analysis in a <u>table</u> (see template)

Include a Risk heat map





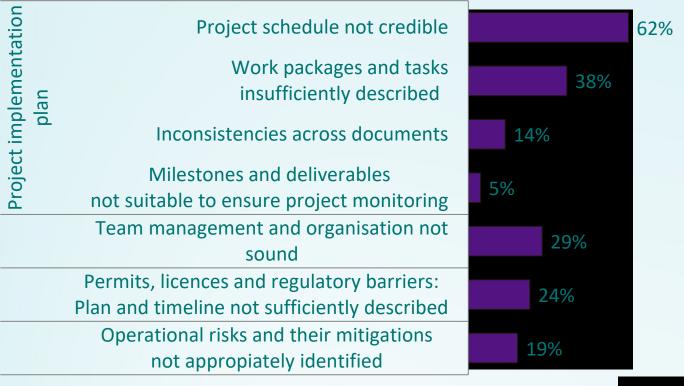
# Operational Maturity: Lessons Learned IF23 Call

#### **Key reasons for failure:**

- Project implementation plan not credible
- Team management and organisation not sound
- Permitting and licences plan and timeline not sufficiently elaborated
- Operational risks and their mitigation strategies not

adequate

### Out of 21 proposals failing operational maturity, the main reasons are:





## Replicability

IF24 call and IF24 batteries call



### Replicability





- Application form, Part B, sections:
  - 5.1 Replicability
  - 5.2 Knowledge sharing Communication, dissemination and visibility

The project proposals will be assessed based on quality, soundness and reliability of the information provided



# Replicability



#### Now split into 3 sub-criteria:

- Replicability in terms of efficiency gains and multiple environmental impacts
- Replicability in terms of further deployment
- Contribution to Europe's industrial leadership and competitiveness



# Replicability: Sub-criterion: Contribution to Europe's industrial leadership and competitiveness - more focus production of the resilience.

on EU resilience	
IF24 Call	IF24 Battery Call
Contribution to <b>new industrial ecosystems</b> (for example, clusters) or contribution to energy infrastructure development (i.e., projects connected to PCIs)	<b>Supporting the European batteries ecosystem</b> (components, including cathodes and anodes, from EU/EEA suppliers, machinery/manufacturing equipment from EU/EEA suppliers)
Development of <b>new technology/IP rights</b> in EEA, cooperation with EEA universities, trainings and other actions to develop know-how in Europe during project's operation	<b>Creation of IP rights (patents)</b> registered in Europe in the past five years or demonstrating <b>batteries research activities</b> in the EU/EEA, e.g. through on-going cooperation programmes with EU/EEA universities or research institutes)
	!!! New patents originating from the project, during the project's duration must be registered in an EU Member State or EEA country i.e., results within the meaning of Article 16 of the Grant Agreement (project scope requirements)
Resilience and due diligence on the supply chain with reference to responsible sourcing of raw materials (namely: on governance, conflict risk, human and social rights, environmental performance and water risk)	Reduction of consumption of critical raw materials, use of secondary raw materials, recycling or other strategies helping to reduce dependencies on critical raw materials
→ Where relevant, describe how the project will reduce sourcing of final products or their components or critical raw materials from countries on which EU has dependency	Jobs created, trainings or other actions to develop know-how in Europe
For maritime sector projects, ability to strengthen the EU's maritime transport value chain, including port activities, increased competitiveness and job creation in the EU maritime sector, demonstrated coordination on the development of Green Corridors (see Glossary in call text)	Reporting requirements at Financial Close, at Entry into Operation, in annual reports and reporting at the end of the monitoring period. Penalties apply if requirements are not fulfilled

# Knowledge sharing Communication, dissemination and visibility



**Knowledge sharing plan** no longer mandatory annex, **outline** mandatory in Application Form Part B (5.2).



#### **Knowledge sharing goals:**

- De-risking innovative low-carbon technologies with regard to wide-scale commercialisation
- Acceleration of deployment
- Increasing the undertaking of, and confidence in these technologies by the wider public
- Maintenance of a competitive market for the post-demonstration deployment of the technologies

#### **Guideline:**

- Check thoroughly Annex 2 in call document
- Please refer to the "Knowledge Sharing report template" available on the Funding & Tenders portal for information only at submission stage to better understand the information to be provided during project implementation
- Confidentiality will be ensured!

# Security of supply and countering dependency

**IF24** Batteries Call only



# Security of supply and countering dependency

- Degree of diversification of the supply of cathode active materials (CAM) and anode active materials (AAM) from China during the project's monitoring period.
- The less CAM and AAM the project will source from China, the better it can score.
- Projects that aim at expanding or converting existing facilities must demonstrate diversification of CAM and AAM sourcing from China, compared to existing operations over the last 2 years.

Only CAM and AAM concerned
Only imports from China are concerned
No hard thresholds applied
Claims have to be underpinned by evidence

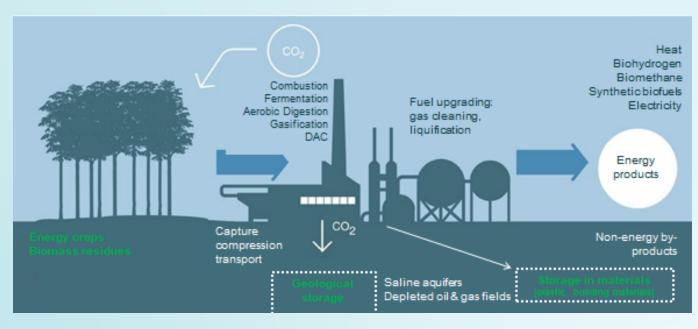


# Bonus points

IF24 Call only



### Bonus Point 1: net carbon removal



- Application form, Part B, Section 8
- Template GHG emission Calculator Tab "Net carbon removals"

- The total project emissions should be negative
- For EII projects, negative emissions can only be claimed excluding any credit for timed operation
- For EII projects: the non-principal products are not allowed to be the only source of negative emissions in the projects

# Bonus Point 2: other GHG emission savings

Other GHG savings from emissions sources that go beyond the boundaries established in the Innovation Fund GHG calculation methodology for the given sector, such as:

- Emissions due to transportation of raw materials or finished products,
- Waste management,
- Upstream emissions of fuels, etc.

- Application form, Part B, Section 8
- Template GHG emission Calculator Tab "Other GHG savings"

# Bonus point 3: use electricity from additional renewable sources or use of RFNBOs

Only for projects where the main innovation relies on electricity use or RFNBOs consumption.

Commitment to use electricity from additional renewable sources or to use RFNBOs:

- Projects implementing innovative technologies on electricity consumption that demonstrate the use of electricity of renewable origin from additional sources\*, either
  - o coming from project's own installation or
  - o procured via the grid, e.g. via Power Purchasing Agreements (or MoUs or Lols for such PPAs).
- Projects that propose to consume RFNBOs as defined in the Renewable Energy Directive 2018/2001 and its Delegated Regulations on methodology for RFNBOs.

Application form, Part B, Section 8

\* Alignment with the Commission delegated regulation 2023/1184 of 10 February 2023 to the Renewable Energy Directive 2018/2001 on the definitions of "additional renewable electricity" (see Article 5) must be demonstrated.

## Bonus point 4: maritime sector projects

Only for projects in the maritime sector!

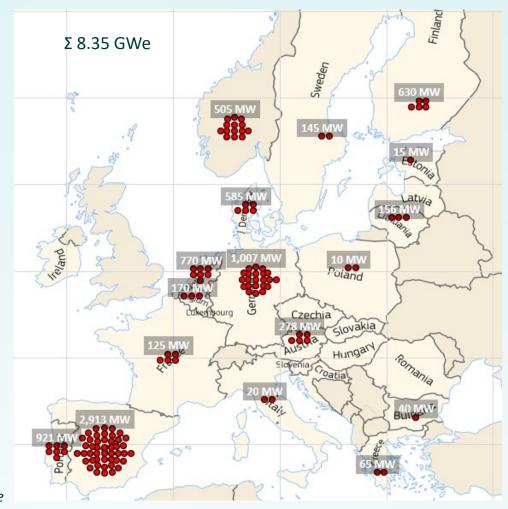
 Projects that have a demonstrated potential for decarbonising the maritime sector and reducing its climate impacts. Application form, Part B, Section 8

# Innovation Fund 2024 RFNBO H2 Auction



# IF23 H2 Auction, a high-level of participation & competition

- €800 million budget (Innovation Fund)
- + €350 million (Germany's contribution in the AaaS scheme)
- 132\* bids received from 17 different EEA countries
- Only 13 projects failing admissibility and eligibility criteria
- 6 Grant Agreements signed for €694 million



\*Graphs & analyses on all following charts refer to data from 130 bids, excluding 1 bid submitted above the ceiling price of €4.5 and 1 bid with significant data gaps and incomplete application documents.

## Objectives fulfilled – IF23 H2 Auction









Reducing the cost gap

between renewable & fossil H<sub>2</sub> in the EU



Allowing for **price discovery** & renewable **H<sub>2</sub> market formation** 



Price information shared on selected bids & anonymised European bid curve

#### De-risking

European hydrogen projects



€694 million in grant support for 6 renewable H<sub>2</sub> producers

#### Reducing

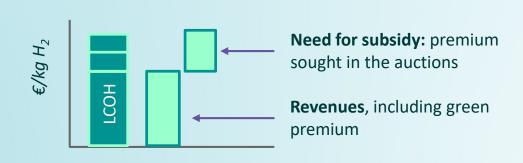
administrative burden

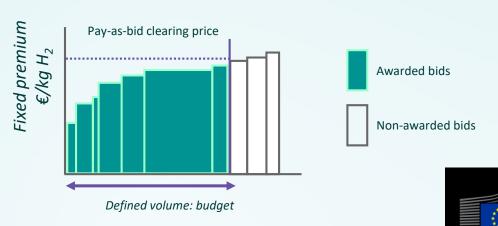


Simplified application process & results provided in less than 3 months

### IF24 H2 Auction overview

- Objective: support production of Renewable Fuel of Non-Biological Origin (RFNBO)
   Hydrogen as defined in the Renewable Energy Directive & its Delegated Acts
- Also: contribute to achieving security of essential goods supply & to Europe's industrial leadership & competitiveness
- Fixed-premium auction, single stage, pay-as-bid bidders are free to decide their bidding strategy
- Pass/fail qualification criteria & ranking based on price Fixed-premium auction





## IF24 H2 Auction vs. IF23 H2 Auction

#### **Increased budget to €1.2 billion**

AaaS: additional contribution up to €836 million from Austria, Spain, & Lithuania

#### **Budget divided in 2 topics**

- **General**: €1 billion no off-taker restrictions
- Maritime sector: €200 million off-takers only from maritime sector

**Increased maturity requirements** for bidding projects (mandatory time to reach Financial Close, higher completion guarantee) & **lower ceiling price** 

#### Resilience criteria

 "Achieving security of supply of essential goods and contribution to Europe's industrial leadership and competitiveness" – reflected in qualification criterion + other requirement

# General eligibility conditions

- Location: within the EU/EEA (no virtual production)
- Installed capacity: min. 5 MWe, new capacity, single location (no virtual capacity pooling)
- Projects must limit the sourcing of electrolyser stacks with surface treatment or cell unit production or stack assembly carried out in China to no more than 25% (in MWe) of the total electrolyser capacity as expressed in the bid
- Off-takers: no restriction (general) / min. supply to maritime off-takers (maritime)
- Bid ceiling price: €4/kg RFNBO Hydrogen
- Maximum grant support period: 10 years
- Maximum size of the bid: €250 million (general) / €200 million (maritime)



# Key implementation arrangements (1/2)

- Financial close: within 2.5 years after signing Grant Agreement
- Entry into Operation (EiO): within 5 years after signing Grant Agreement
- Completion guarantee: 8% of the requested grant covers reaching Financial Close & EiO under the call requirements
- Payments: no payments before EiO; then, biannual basis €/kg of RFNBO Hydrogen produced, certified & verified for a maximum period
   of 10 years

# Key implementation arrangements (2/2)

- Production requirements: semi-annual production may be increased to up to 140% of planned. Total grant amount cannot be increased. Production cannot fall < 30% of planned production for more than 3 rolling consecutive years
- Compliance with the criteria during implementation: monitoring of maritime off-takers, resilience criteria, and certification of 70% GHG savings on overall production
- Cumulation with other public funding: limitations apply, same as for IF23 Auction

## A dedicated topic for the maritime sector

After its 2023 revision, the ETS Directive extended to the maritime transport. **20 million allowances** to be deployed by the Innovation Fund by 2030 to support the decarbonisation of the maritime sector, through **dedicated topics** 

#### Specific eligibility condition:

- projects presenting pre-contractual off-take agreements in their applications, with off-takers belonging to the maritime sector covering at least 60% of their planned RFNBO hydrogen production as stated in the bid
- monitored throughout the project's operation



# New resilience requirements

(I) "Achieving security of supply of essential goods and contribution to Europe's industrial leadership and competitiveness"

Assessing projects' contribution to a diversified supply chain and avoiding building dependency on a single third country which may threaten the security of supply of electrolysers in Europe.

(II) Compliance with standards

ISO Standard: ISO 22734:2019

**Cybersecurity:** present a cybersecurity plan at Entry into Operation

(III) Increased information requirements as part of the "Electrolyser procurement strategy" documentation

(IV) **Risks of investigations:** reminder of existing rules under the Foreign Subsidy Regulation, State aid and Trade Defence Instruments

**Evidence** to be provided at bidding stage

**Monitoring** how the requirements are fulfilled at Financial Close, Entry into Operation & end of monitoring period



# Achieving security of supply of essential goods and contribution to Europe's industrial leadership and competitiveness

#### Background:

- alignment with the objectives of Net-Zero Industry Act
- significant risk of increased & irreversible dependency of the EU on imports of electrolysers originating in China

New award sub-criterion under "relevance" (pass/fail assessment)

Projects must limit the sourcing of electrolyser stacks with surface treatment OR cell unit <u>production</u> OR stack <u>assembly</u> carried out in China to not more than 25% (in MWe) to pass

Electrolyser cell: electrodes +diaphragm/ membrane/solid electrolyte

Evidence needed to underpin the claim in application (self-declaration + MoU/LoI from the electrolyser OEM. and implementation will be monitored)

# Combination with other public support

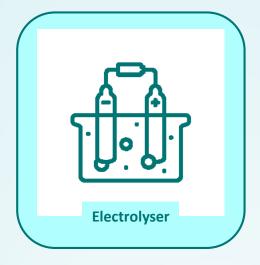
As general rule: strict prohibition of double funding from the EU budget. Any given action may receive only one grant from the EU budget. See detailed slides from EU info Days and call instructions.



**V** Allowed

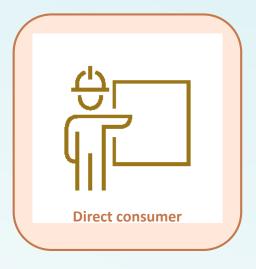


Rules for public support spelled out in RFNBO Delegated Act



X In general not allowed

**V** Some exceptions to this rule



V Allowed for CAPEX or nondedicated infrastructure



## Award criteria

#### **RELEVANCE**

(pass/fail)

- Contribution to objectives of the call
- Achieving security of supply of essential goods & contribution to Europe's industrial leadership & competitiveness

#### **QUALITY**

(pass/fail)

- Technical maturity
- Financial maturity
- Operational maturity



#### RANKING

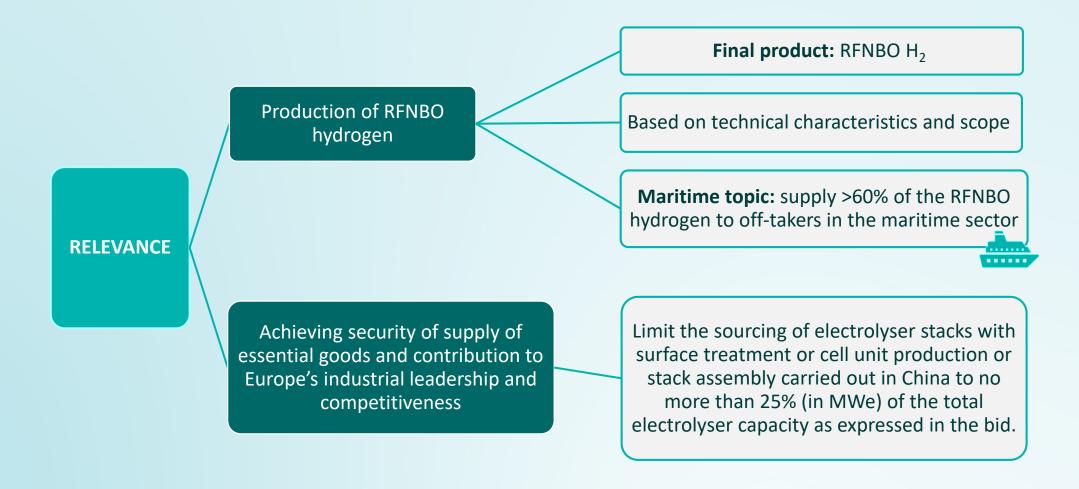
- according to the bid price (€/Kg H₂)
- within the limits of the available budget

#### **APPLICATION DOCUMENTS**

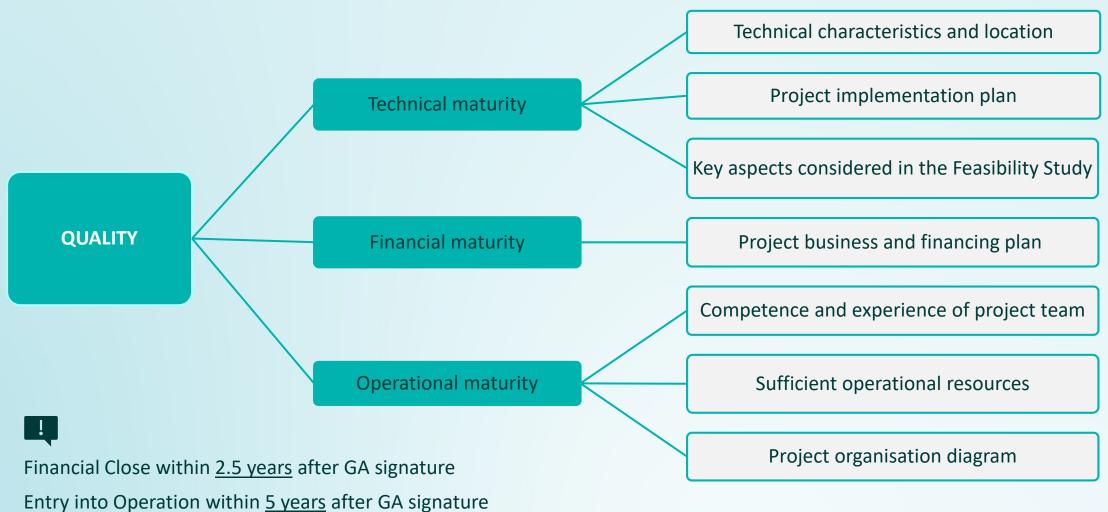
required

- Renewable electricity sourcing strategy
- 2. Hydrogen off-take & price hedging strategy
- 3. Electrolyser procurement strategy
- 4. Plan to receive environmental permits on time
- 5. Plan to receive grid connection permits on time NEW template
- 6. Feasibility Study
- 7. Completion guarantee letter of intent,

### Award criteria - Relevance



# Award criteria - Quality



#### Letter of Intent & Completion Guarantee

#### **Letter of intent:**

- To be provided in the application stage
- Issued by a bank or financial institution, authorized to conduct its business by the competent national authorities, with the following minimum rating from at least one of these rating agencies: BBB- from S&P or Fitch, Baa3 from Moody's or BBB(low) from DBRS) established in the EEA
- Template must be used and cannot be modified!

#### **Completion guarantee:**

- Signed completion guarantee using the template due 2 months after receiving invitation for GAP
- Provided by a financial institution with minimum rating as specified above
- Covering 8% of the maximum grant amount
- Validity until 6 months after maximum time to Entry into Operation
- Template must be used and cannot be modified!



# Award criteria - 'Quality': financial maturity

#### **Objective:**

 assess the project capacity to reach Financial Close in 2.5 years and Entry into Operation within 5 years of grant signature.

Credibility of business plan

Application Form

B 2.2 + FIF

Soundness of the financing plan Application Form B 2.2 + FIF

Credibility of
Off-take and price
hedging strategy

Consistency across all documents of the application is key!



# Lessons learned – Financial maturity

- Ensure CAPEX is sufficiently detailed & credible in lines 347 to 375 of the FIF. Make sure it ties
  with the electrolyser procurement strategy
- Ensure **sources of equity** financing and **debt financing are sufficiently described** & **credible** who is likely to provide it? Do they have the financial capacity to provide such an amount?
- Ensure the off-take strategy and off-take pre-contractual signed term sheets encompasses all the elements listed in the call text make sure it ties to the volume and prices in the FIF
- Letter of intent completion guarantee and completion guarantee: use strictly the template
  provided on the funding and tender portal without changing the text



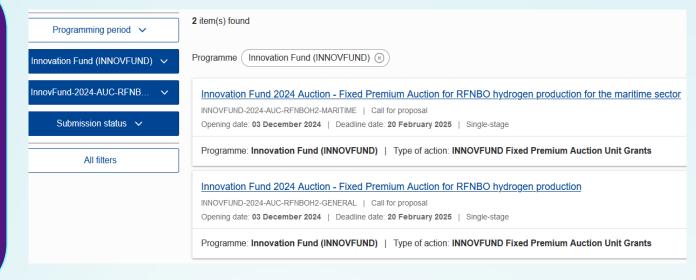
# Application process & requirements



## Application process – How to apply & mandatory documents

#### All relevant information to apply:

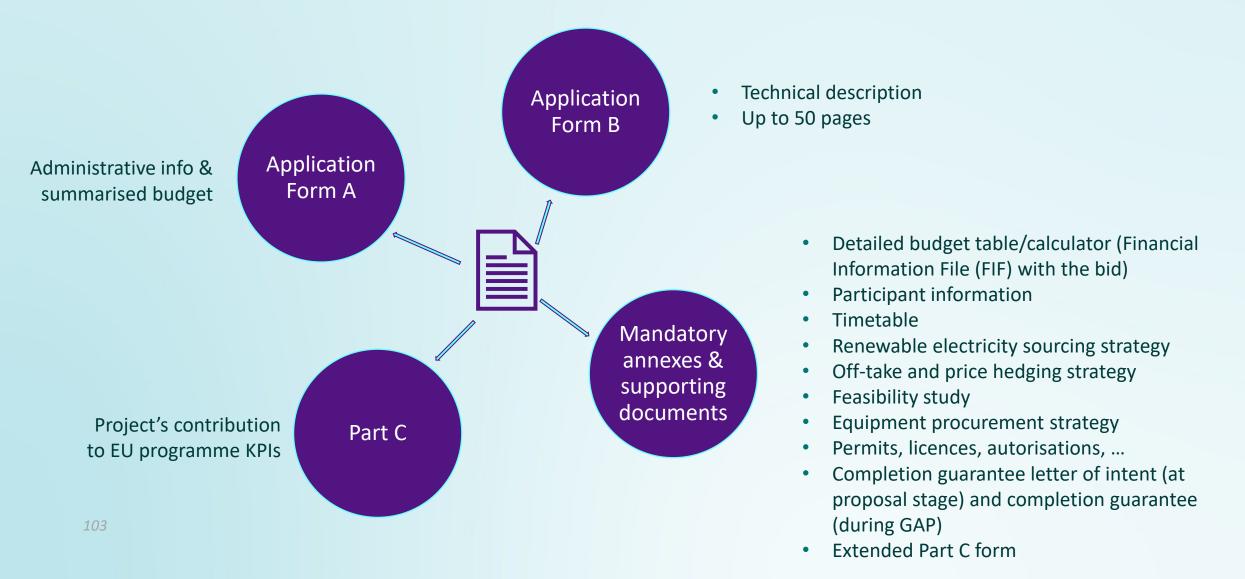
- EU Funding & Tenders Portal
- Application process tutorial
- Financial Information File (FIF) tutorial
- Info Day recording and slides
- Innovation Fund Helpdesk
- Q&A on the general design of the IF24 Auction



<u>Call information</u> on EU Funding & Tenders portal



## Application process – Compulsory documents



# Application process – Lessons learned admissibility & eligibility (1/2)

- Ensure the proposal is complete and contain all the requested information (Application Forms A, B, and C) and all required annexes and supporting documents
- Use the mandatory forms and templates provided and do not modify them
- Ensure your application is readable, accessible and printable
- Ensure minimum installed capacity of the electrolyser of at least 5 MWe,
   project and budget size in the limits expressed in the call
- The bid price may not exceed the ceiling of €4/kg of RFNBO hydrogen



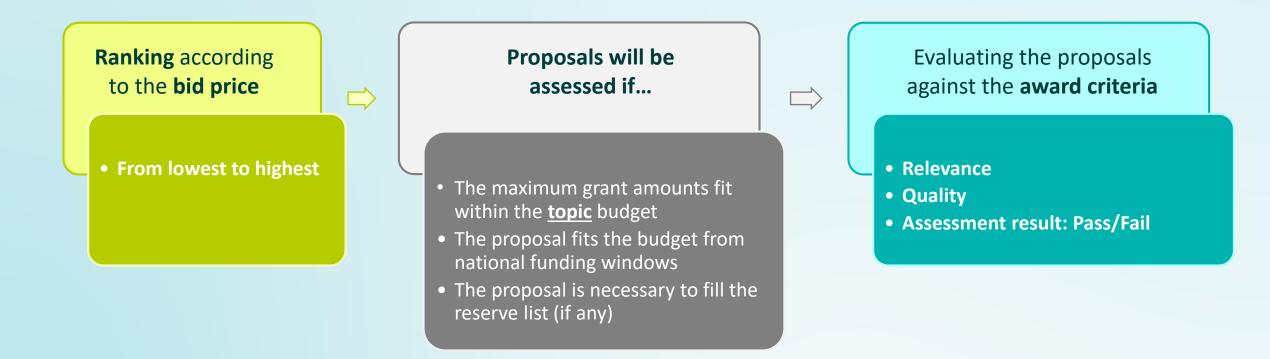
# Application process – Lessons learned admissibility & eligibility (2/2)

#### Examples of non-admissible proposals (non-exhaustive list):

- No renewable electricity sourcing strategy, or missing mandatory information
- No evidence of initiated process with relevant authority to receive an environmental permit
- No letter of intent from a bank or financial institution to issue a completion guarantee
- Letter of intent to provide a completion guarantee is not based on the template provided or has missing elements
- Financial information file provided not used
- No description of the applicant
- Some pages of the documents are not readable



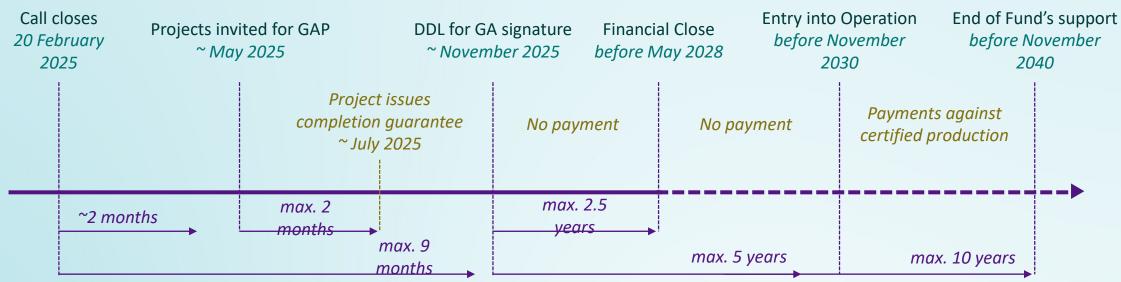
# **Evaluation** - Evaluation & award procedure (cascade approach)



The first proposal proposed for funding ('marginal bid') exceeding the call budget will be added to the reserve list and the total auction budget volume will be decreased accordingly.

# IF24 Auction implementation timeline





- Evaluation is simplified (compared to regular grants) and much faster: approx. 2 months.
- If the completion guarantee is well prepared, winners could sign grants well before the deadline for GA Signature.
- Maximum time to Entry into Operation (EiO) of 5 years to allow projects to manage delays, but normally EiO can be achieved earlier.

# 2024 funding opportunities



#### **IF24 Auction**

RFNBO Hydrogen
3 Dec 2024 – 20 Feb 2025
Budget: €1.2 billion



#### IF24 Call

General, Clean-tech, Pilots

3 Dec 2024 – 24 April 2025

Budget: €2.4 billion



#### **IF24 Batteries**

Manufacturing of electric vehicle battery cell

3 Dec 2024 – 24 April 2025

Budget: €1 billion

# Join as project evaluator for Innovation Fund



- Technical expert
- Financial expert
- GHG expert
- Rapporteur

Sign up as an Expert (europa.eu)

## 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://cinea.ec.europa.eu/programmes/innovation-fund\_en

And more videos available on YouTube:

https://youtube.com/playlist?list=PLrp3luGqStFA2fAgz86AsmVp8dXp5kPl G&si=h2W68TyCZJKemcjH

# Let's keep in touch



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# Thank you



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