Innovation Fund
Project Development Assistance
Knowledge Sharing Event
June 14th, Brussels
Welcome Note & Overview of Innovation Fund Project Development Assistance

DR. JUAN MAGAÑA-CAMPOS
HEAD OF DIVISION, INNOVATION & DIGITAL FINANCE ADVISORY, OPERATIONS DIRECTORATE

DR. ZORAN STANIC
HEAD OF UNIT, INNOVATION FUND, PROJECTS DIRECTORATE
EIB at a glance

Largest multilateral lender and borrower in the world
Leading provider of climate finance
Governed by the EU Member States

Over €1.5 trillion invested since 1958
- More than 14,400 projects in over 160 countries
- Crowding-in bank: €4.9 trillion overall investment mobilised
- €197 billion in climate lending since 2012
- Lending ca. 65bn EUR in 2022
- First MDB to be Paris aligned
- Pioneering investor in green technology

Headquartered in Luxembourg
- Around 4000 staff: In addition to finance professionals, we have engineers, economists and socio-environmental experts
- 54 offices around the world
EIB role: Innovation Fund Project Development Assistance

- The Innovation Fund includes a dedicated Project Development Assistance (PDA) service to improve the “maturity” of projects.
- “Maturity” refers to selection criterion C in Article 11 of the Delegated Regulation of the Innovation Fund.

“Project maturity in terms of planning, business model, financial and legal structure as well as project of reaching the financial close within a predefined period of time not exceeding four years after the award decision”

- EIB has been entrusted by the Commission with the implementation of the PDA task in accordance with Article 18(1)(c) of Delegated Regulation (EU) 2019/856.
- PDA is implemented by financial and technical experts of the EIB with support from external consultants.
Criteria for PDA support

<table>
<thead>
<tr>
<th>Project Development Assistance (PDA) criteria are defined in IF Calls for Proposals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Out of the proposals that do not score above the threshold for funding, the proposals that are considered for Project Development Assistance:</td>
</tr>
<tr>
<td>• reach at least the <strong>minimum threshold</strong> for ‘GHG emission avoidance’, ‘Degree of innovation’, ‘Scalability’ and ‘Cost efficiency’</td>
</tr>
<tr>
<td>• are awarded at least <strong>50% of total points under the ‘Project maturity’ criterion</strong>, and</td>
</tr>
<tr>
<td>• are considered by the evaluators as <strong>having the potential for improving their maturity</strong> through specific PDA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activities that may be funded with PDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>According to Art. 13, the following activities may be funded by way of PDA:</td>
</tr>
<tr>
<td>(a) improvement and development of <strong>project documentation</strong>, or components of the project design with a view to ensuring the sufficient maturity of the project</td>
</tr>
<tr>
<td>(b) <strong>assessment of the feasibility of the project</strong>, including technical and economic studies</td>
</tr>
<tr>
<td>(c) <strong>advice on the financial and legal structure</strong> of the project</td>
</tr>
<tr>
<td>(d) <strong>capacity building</strong> of the project proponent</td>
</tr>
</tbody>
</table>
PDA process

1. CINEA evaluation/longlist
2. EIB screening
3. EC award decision
4. Fine-tune PDA scope with clients
5. Sign PDA agreement

- PDA work planning
- Consultancy services procurement
- Consultancy work management

Project Summary

Note

Budget
Time, Quality
# PDA activities

## Independent reviews
- Technology assessment: Verification of key technical parameters of the project
- CAPEX & OPEX review
- Market analysis review
- Pilot project review and scale-up risk assessment

## Financial modelling
- Review of the existing financial model
- Development of a bank-standard financial model
- Business case modelling

## Additional studies
- Market research
- Life cycle assessment (LCA)

## Other Financial Advisory
- Business plan assessment
- Corporate strategy guidance
- Advice on fundraising strategy
- Support with equity pitch documentation
Overview of projects awarded PDA

Number of projects that received project development assistance

<table>
<thead>
<tr>
<th>Category</th>
<th>Large-scale</th>
<th>Small-scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Storage</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Energy Intensive Industry</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Intra-day electricity storage</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Solar energy</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Biofuel production</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Hydrogen</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Chemicals</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Iron &amp; steel</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Cement &amp; Lime</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Glass, Ceramics &amp; construction material</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Carbon capture storage</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Our project development assistance across the European Union

PDA screened: 57
PDA completed: 25
PDA under execution: 14
TOTAL CAPEX of all PDA projects: EUR 5.16 billion
Key highlights & lessons learnt

- The purpose of PDA is to increase a project’s maturity based on specific recommendations, with limited time and budget.

- Projects receiving PDA support can re-apply to subsequent IF Calls.

- Projects can receive technical and/or financial PDA support.

- Good communication with the promoter has been key for successful PDA implementation.
Contacts

Innovation Fund - Project Development Assistance (eib.org)

If you are interested in advisory support for your project please reach out to us at our new mailbox:

innovationfinanceadvisory@eib.org
Growth Capital for Cleantech

RUBEN DEVOGELAER

SENIOR INVESTMENT OFFICER

EQUITY AND GROWTH CAPITAL FOR CLEANTECH IN THE EU
The EU has made **climate action a top priority** and aims to be climate-neutral by 2050

Cleantech companies deserve **reliable and long-term partners, from early stages of commercialisation and deployment to late-stage growth and scale-up; as well as for lighthouse and FoaK projects**

Since 2016 the **EIB is a partner of choice for innovative cleantech companies**, having provided over €1bn of venture debt

With the support of the European Commission, the EIB provides venture debt under InvestEU’s Green Transition instrument – well suited for very innovative projects and companies with higher risk and high policy impact

**EIB Cleantech Venture Debt is a market-based and highly flexible instrument that can meet most (if not all) client’s financing needs in the growth space**
Why does EIB support Cleantech with venture debt?
## Cleantech growth capital for 5 priority sectors

_EIB supports innovative products, technologies and business models contributing to a net-zero world across 5 priority sectors._

<table>
<thead>
<tr>
<th>ENERGY</th>
<th>MOBILITY</th>
<th>CIRCULAR ECONOMY</th>
<th>BIO-ECONOMY</th>
<th>DECARBONISATION OF INDUSTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renewable energy technologies (wind, wave, solar, etc.)</td>
<td>New and adapted transport services and infrastructure (e.g. charging networks, drone delivery)</td>
<td>Sustainable end-product, byproduct and waste product recycling.</td>
<td>Sustainability and climate mitigation in food production and supply chains, agriculture, farming, forestry and blue economy</td>
<td>Carbon reduction for energy intensive heavy industry incl. cement and steel.</td>
</tr>
<tr>
<td>Energy storage</td>
<td>Digitalisation of the transport sector and manufacturing of green mobile assets</td>
<td>And more...</td>
<td>And more...</td>
<td>And more...</td>
</tr>
<tr>
<td>Demand response and smart grid solutions</td>
<td>Alternative fuels for HGV, Maritime and Aviation – Green H2 and Methanol</td>
<td>Key sectors include: textiles, plastics, packaging, ICT, batteries, vehicles, construction materials, food, water, critical raw materials, nutrients and energy equipment</td>
<td>And more...</td>
<td>And more...</td>
</tr>
</tbody>
</table>
Which initiatives get EIB support?

- You are a **start-up or more established company or a lighthouse or FoaK project** in one of the 5 focus areas; focusing on innovative products, technologies or new business models

- You are not just average, you will make an **important contribution to a net-zero and competitive EU economy**!

- **Investments (capex and/or R&D) to be financed** are deployed within the EU

- You have already raised (Series A/B) equity and your company needs **fresh cash** (and are reliant on mainly equity at this stage) for **further development, commercial demonstration**, to accelerate growth or to scale-up

- Sound and **sustainable business model, professional management team and established corporate governance**
EIB accompanies clients as they grow their business

GROWTH CAPITAL / VENTURE DEBT - Financing growth of innovative companies across 5 focus sectors, from early stage growth to late stage growth and scale-up.

Series A
Seed, Angels, Grants, Friends & Family, Own funds

Series B/C
Venture capital

Early commercialization*
Early growth
Late growth
Mature

Exit / Further Series
Bank debt, M&A, Public market, etc.
## Advantages of EIB financing – what’s in it for you?

### COMPANY
- **Longer tenors to create runway** allowing a company to focus on business
- **Amounts tailored needs**, with bigger tickets for late-stage growth or scale-up.
- **EIB is a stable AAA rated, reliable and patient investor**
- **Flexible and bespoke terms to meet company needs**, function of stage of maturity and growth trajectory.
- **Increased market visibility** for the company
- **Effective sharing in technology and commercialization risk**

### FOUNDERS
- **Little to no dilution** or loss of control
- **Hands-off approach** though available as sounding board to management when required
- **Extend time to next funding round** or refinancing when graduating to standard bank lending
- **Potential start of long term relationship** with EIB via corporate or project financing

### INVESTORS
- **Complementary** to equity investors
- **Little to no dilution** or loss of control
- **Longer tenors**, large tickets and later stage entries as **enhance returns** for equity investors
- **Reduce need for additional equity**
- **Possibility to build relationship with EIB** across different portfolio companies, adding to VC offering
EIB is a leading investor in Cleantech in the EU

More than 1 billion invested in innovative technology and business models across our 5 sectors
Your contact in the Cleantech Equity and Growth Capital team

Ruben Devogelaer
Senior Investment Officer
r.devogelaer@eib.org
European Investment Bank
100, boulevard Konrad Adenauer
L-2950 Luxembourg

HOW TO APPLY: Just mail us and share a teaser!
Project Development Assistance ("PDA")

CASE STUDIES

CO2NCREAT
CO$_2$ncrEAT

- **Industrial project allowing the production of carbon negative building products** (“CO$_2$ncrEAT blocks”)

- **CO$_2$ncrEAT blocks** are cement-free and made of steel slag, a by-product from the steel industry, and CO2 from a lime plant nearby

- **Innovation** lies in the production of such blocks by injecting industrial flue gases (versus pure CO2)

- **A consortium of 4 Belgian players** are joining forces to conduct this project: Prefer (producer of building materials), Fluxys Belgium (expert in pipeline transport), Lhoist (lime producer, supplier of CO2) and Orbix (owner of ad-hoc technology and raw materials)

- In December 2022, the project was selected by the European fund, i.e. the “Innovation Fund Small Scale”, to get a **EUR 4.5 million grant**.
Motivation for the project is the creation of an innovative masonry block with a carbon negative footprint.

CO2ncrEAT blocks carbon footprint is -70kg CO2/t versus normal blocks which have a footprint of +90kg CO2/t.
...using steel slag and CO₂ (cement-free)
...with CINEA, operational as from 2026

- **Jun 2023**: Start of the project
- **Jun 2025**: Financial Close
- **Jul 2025**: Construction phase starts
- **Jul 2026**: Entry into operation
- **Feb 2028**: End of the project
Earlier in 2021 and 2022, CO2ncrEAT failed twice to get support from a European fund.

PDA, why?
- Project financial model
- Project capex
- Project uncertainties

PDA, how?
- **Scope**: definition of support areas and deliverables
- **Modus operandi**: definition of roles & timing
Inception: gaps identified in previous application

Financial model:
- Align the financial model to the standard used by banks and investors, in accordance with CINEA’s guidelines
- Clarify cost sharing mechanisms between consortium partners
- Develop a detailed financing plan...

Capex:
- Provide a detailed breakdown...
- Explain the rationale behind specific item X...

Project uncertainties:
- Research on impact of carbon avoidance/capture...
- Substantiate assumptions regarding uncertainties...

An application to a European subsidy requires a comprehensive work covering all aspects of the project.

CINEA assessment can reveal areas that need to be improved, even if it is clear for you:
Financial and Technical PDA were completed in parallel.

Despite the short timeline all PDA support was completed in time for a re-application.

PDA and dedicated consultants are bringing drive to the project within your organization. Also, they will highlight CINEA best practices.

Attention points:
- Scope/focus
- Collaboration with internal resources
- Timing
**Results:** improved application materials that led to a successful outcome

<table>
<thead>
<tr>
<th>Financial model</th>
<th>Capex</th>
<th>Project uncertainties</th>
</tr>
</thead>
<tbody>
<tr>
<td>The financial model supported the economic rationale of the project and helped clarify the financial commitment of each partner. It also became a turnkey solution for all stakeholders to play with project assumptions, drivers and outputs.</td>
<td>Quotation transformed into a clear and structured list of investments required to setup CO₂ncrEAT</td>
<td>Key risks addressed during working sessions and dedicated notes so as to provide supporting material for some of the project assumptions</td>
</tr>
</tbody>
</table>
What’s next for CO2ncrEAT

▪ Along the summer we will run tests in a small pilot plant allowing us to make CO₂ncrEAT blocks based on Lhoist flue gases (until now, tests were made only with pure CO₂)

▪ The results of these tests will allow us to apply for environmental/building permits

▪ In parallel, detailed engineering work is starting so that we will ensure construction by 2025

▪ Hereafter, construction at a glance
Construction: geographic footprint

What's next?
Construction: situational description

What`s next?

- **Yellow**: Fluxys pipeline
- **Orange**: Orbix Carbinox supply route
- **Blue**: Prefer plant
Construction: Prefer’s contemplated unit

What’s next?
Project Development Assistance ("PDA")

CASE STUDIES

ZERO CARBON GYPSUM
Zero Carbon Gypsum

Goal of the project:

▪ Switch gypsum plasterboard manufacturing plant from natural gas to low-carbon syngas

▪ Demonstrate ETGAS core technology in a first-of-a-kind application globally

▪ Demonstrate technical and financial feasibility in achieving Net Zero in energy intensive industry with substantial process emissions

▪ Set a benchmark and Net Zero roadmap for gypsum plasterboard industry globally
Zero Carbon Gypsum

**Project description**

- Development of a renewable *synthesis gas generation plant using non-recyclable solid waste* (SRF, RDF) as a feedstock. The plant will be located on gypsum plasterboard producer’s site.

- **Benefit**: facilitate the transition towards carbon neutrality of energy-intensive manufacturing by replacing natural gas in traditional industrial processes with on-site generated renewable gas.

<table>
<thead>
<tr>
<th>Location</th>
<th>Latvia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector</td>
<td>Energy Intensive Industries - Glass, Ceramics &amp; construction material</td>
</tr>
<tr>
<td>CAPEX</td>
<td>7.2 MEUR</td>
</tr>
<tr>
<td>Requested EU contribution</td>
<td>4.3 MEUR (60% of eligible costs)</td>
</tr>
</tbody>
</table>
Innovation Fund Application

- Applied for the first call of Innovation Fund’s small-scale projects on March 10, 2021
- Application done using only internal sources
- Results were announced July 2021, our project received the high scoring of 25.42 points (85% of total possible achievable points) or «few points below the line»
- November 2021 we were awarded PDA
- We were one of 10 projects that were shortlisted to receive PDA from that small-scale project call
PDA Process

- Signed agreement with EIB: Feb 2022
- Project start: April 2022

Focus on following areas (topics selected based on gaps indicated by CINEA evaluators and agreed with the EIB based on time and budget available)

- GHG emission calculations
- Market study on feedstock availability and costs
- Voluntary CO2 market and alignment to ETS
- Independent technology review
- Improvement of financial model (e.g. sensitivities)
Development of financial model up to bank standard helped structure discussion with financiers for new company projects.

Independent technology review allowed us to validate critical points in discussions with other industry stakeholders, especially CO2 footprint, technology readiness, etc.

While our partner KNAUF lost interest in the project (parent company was not happy with the long process), we gained new customer in construction materials industry (bricks manufacturing).

We feel much more confident regarding participation in upcoming Innovation Fund calls, if/when we’ll decide to apply.
Key takeaways of project development assistance

- We were ready to win the grant in the next IF call
- Obtained valuable and still relevant reports
- Improved our financial model and approach
- Gained a better understanding on how EIB works
- Many other advices received not directly related to PDA
- Due to budget and time constraint, PDA activities were focused on desktop studies/reviews
- The PDA was concluded within 8 months from the award
  - Financial PDA was concluded within 2 months;
  - Technical PDA was concluded in 8 months, due to time necessary to hire consultants with specialized expertise

Both PDA were concluded in time for the next innovation fund application
FNM group: overview

**THE GROUP AT A GLANCE**

- Established in 1877, FNM is the leading integrated sustainable mobility Group in Lombardy.
- It is the first organization in Italy to combine Railway Infrastructure Management, Road Transport and Motorways.
- The aim of the Group is to propose an innovative model to manage mobility supply and demand, designed to support optimization of flows as well as environmental and economical sustainability.
- The Group’s activities are divided into four main segments:
  - FNM S.p.A. is a public company, listed on the Italian Stock Exchange since 1926.
  - It is one of Italy’s leading non-state investors in the sector.
  - The reference shareholder is Regione Lombardia, which holds a 57.6% stake.

**KEY FIGURES**

- **98** Owned Trains
- **702** Buses
- **124** Stations
- **330 km** Railway network FERROVIENNORD
- **185 km** Motorway network
- **2,200** Trains/day TRENORD

**SHAREHOLDER’S STRUCTURE**

- Free float: 27.69%
- Regione Lombardia: 57.57%
- Ferrovie dello Stato: 14.74%
FNM group: hydrogen projects (1)

- Rail and road Local Public Transport
- Road private mobility
FNM group: hydrogen projects (2)

Integrated Group project area is located at the intersection of the Rhine-Alpes and Mediterranean corridors and the Milan node. The serraH2valle project extends in a synergic and complementary way the projects already started by FNM.
“H2iseO Hydrogen Valley”: an Italian industrial hydrogen-based value chain for a sustainable mobility system in the UNESCO world heritage site of Valcamonica, along the non-electrified railway line Brescia – Iseo – Edolo
H2IseO project: overview (2)

H2iseO Hydrogen Valley: an Italian industrial hydrogen-based value chain for a sustainable mobility system in the UNESCO world heritage site of Valcamonica, along the non-electrified railway line Brescia–Iseo–Edolo:

- Brescia-Iseo-Edolo line: 103km, single track, not electrified

Public transport services:
- RE_3 → Brescia-Iseo-Edolo
- R9 → Brescia-Iseo-Breno
- R3 → Bornato-Rovato
- Several bus lines

Train operating company

Infrastructure manager

Bus operating company
H2IseO project: overview (3)

**PHASE 1**
- 6 TRAINS

**PHASE 2**
- 8 additional TRAINS
- Hydrogen production and distribution
- Iseo
- Steam Reforming of Biomethane with CCUS
- Electrolysis from renewable energy

**PHASE 3**
- 40 BUSES
- Brescia and/or Edolo

Trains are under construction (Alstom) with commercial services scheduled in 2024
H2IseO project: applications to IFSS (2021)

- **Brescia** hydrogen production plant (electrolysis) - Funded
- **Iseo** hydrogen production plan (steam reforming with CCUS) - Not funded → admitted to PDA
- **Edolo** hydrogen production plant (electrolysis) - Not funded

GreenHyseo
GreenHyseO: the project (1)

The hydrogen production, storage and distribution plant in the city of Iseo:

- produces hydrogen from **Steam Methane Reforming (SMR)** starting from **biomethane**, with a **production capacity of about 1,400 kgH2/day**
- has a **carbon capture module able to capture and store the CO2 produced during the hydrogen production** process thanks to the innovative addition of **CCS technology**

The **CCS technology for the Iseo hydrogen production plant is the focus of the GreenHyseO project**, as part of the wider H2iseO project
GreenHyseO: the project (2)

- The project aims to make the hydrogen production process greener by capturing the CO2, thus obtaining a significant GHG emission avoidance in the production of public transport services.

- The innovation will realise a circular process of carbon-neutral hydrogen production from certified bio-methane, because the CO2 captured will be also purified and then liquefied to be easily transportable for final storage (or utilisation).

- The SMR plant for hydrogen production, the CCS facility and the train and bus refuelling stations are located in the same area, to exclude hydrogen transport on long distances.
GreenHyseO: the project (3)

Project area

Iseo train station
GreenHyseO: PDA focus

Technical assistance

- Identification and assessment of the carbon capture supplier relevant for the project
- Techno-economic analysis of the carbon capture system

Financial assistance

- General review of the financial model
GreenHyseO: project update

<table>
<thead>
<tr>
<th>Construction of hydrogen production, storage and distribution plant (including CCUS) in Iseo:</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Full plant authorized in June 2022</td>
</tr>
<tr>
<td>▪ Storage and distribution plant: EPC contractor selected in may 2023 (public tendering)</td>
</tr>
<tr>
<td>▪ <strong>Production plant including CCUS module</strong>: EPC contractor under selection (offers from candidate contractors received early May 2023) (public tendering)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financing of hydrogen production, storage and distribution plant (including CCUS) in Iseo:</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Funded by Regione Lombardia and by Italian National Resilience and Recovery Plan (NRRP) as part of the wider H2iseO project (total funding of 177M€ for hydrogen plants and connected railway upgrades – excluding trains)</td>
</tr>
</tbody>
</table>
Innovation Fund

Project Development Assistance – Knowledge Sharing Event

14 June 2023

Maria Velkova, DG Climate Action
INNOVATION FUND
Deployment of net-zero and innovative technologies

Funded by: EU Emissions Trading System

Funding through Grants and Auctions ➔ EUR 40 billion* to invest from 2020-2030 in EU's climate neutral future ➔ Avoid emissions and boost competitiveness

Supporting manufacturing, production and use in:
- Energy intensive industries
- Renewables
- Energy storage
- Carbon capture, use and storage
- Net-zero mobility and buildings

*based on a carbon price of 75 EUR/tonne
**Innovation Fund and other funding programmes**

**Technology Readiness Level**

1. Horizon Europe • Research and Innovation
2. LIFE programme • Pilot projects for mitigation and adaptation
3. European Innovation Council • Early adoption, start-ups
4. Innovation Fund • **GRANTS**: scaling up to commercial level • **Auctions**: roll-out of innovative technologies
5. Modernisation Fund • RE, EE, energy storage, energy networks... for 10+3 lower-income countries
6. Connecting Europe Facility • Transport infrastructure for energy, hydrogen and mobility
7. InvestEU – EIB • Debt financing

**Commercial readiness level**

**National funding** (including RRP)

TRL & CRL are indicative
## Award criteria

<table>
<thead>
<tr>
<th>DEGREE OF INNOVATION</th>
<th>GHG EMISSIONS AVOIDANCE</th>
<th>PROJECT MATUREITY</th>
<th>SCALABILITY</th>
<th>COST EFFICIENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation beyond state-of-the-art</td>
<td>• <em>Absolute</em> emissions avoidance <em>(compared to sector depending on median avoidance)</em></td>
<td>• Technical maturity</td>
<td>• Efficiency gains: costs &amp; resources</td>
<td>• Cost efficiency ratio (i.e. the EU contribution requested per tCO2 avoided)*</td>
</tr>
<tr>
<td>• at European level for LSC</td>
<td>• <em>Relative</em> emissions avoidance</td>
<td>• Financial maturity</td>
<td>• Further technology or solutions deployment</td>
<td></td>
</tr>
<tr>
<td>• at national level for SSC</td>
<td>• <em>Quality and credibility</em> of the calculation and minimum requirements</td>
<td>• Operational maturity</td>
<td>• Quality and extent of the knowledge sharing plan</td>
<td></td>
</tr>
</tbody>
</table>

### GHG EMISSIONS AVOIDANCE
- **Absolute** emissions avoidance *(compared to sector depending on median avoidance)*
- **Relative** emissions avoidance
- **Quality and credibility** of the calculation and minimum requirements

### PROJECT MATURITY
- Technical maturity
- Financial maturity
- Operational maturity

### SCALABILITY
- Efficiency gains: costs & resources
- Further technology or solutions deployment
- Quality and extent of the knowledge sharing plan

### COST EFFICIENCY
- Cost efficiency ratio (i.e. the EU contribution requested per tCO2 avoided)*
Innovation Fund - Governance

- DG Climate Action – policy development
- CINEA – programme implementation
- EIB – project development assistance
Innovation Fund – over EUR 3bn already provided for low-carbon innovation projects, EUR 3 bn already engaged for the 2022 calls and over EUR 4 bn in 2023 call and H3 auction

LSC 2020
- EUR 1.1 billion
- 7 Granted projects

SSC 2020
- EUR 109 million
- 30 Granted projects

LSC 2021
- EUR 1.8 billion
- 16 Granted projects

SSC 2021
- EUR 60 million
- 16 granted projects

LSC 2022
- EUR 3 billion
- 239 applicants

SSC 2022
- EUR 100 million
- Open call till 19/09/23

2023 calls and H2 auction
- Above EUR 4 billion
Innovation Fund project portfolio

Green: Large-scale projects (23 awarded for grant)*
Blue: Small-scale projects (46 awarded for grant)*

- Biofuels and biorefineries
- Chemicals
- CO₂ transport and storage
- Hydrogen
- Intra-day electricity storage
- Iron and steel
- Non-ferrous metals
- Glass, ceramics and construction material
- Manufacturing of components for renewable energy
- Manufacturing of components for energy storage
- Other energy storage
- Geothermal energy
- Pulp and paper
- Refineries
- Renewable heating/cooling
- Solar energy
- Wind energy
- Cement and lime
- Use of renewable energy outside Annex 1
- Other energy intensive industries

*The number of symbols is higher than the number of projects, as some projects are implemented in multiple locations.
Portfolio of 69 on-going projects
2020 LSC, 2020 SSC, 2021 LSC, 2021 SSC

- €3 Billion EU contribution
- 20 Countries
- 155 Beneficiaries
- 215 Mt CO₂ eq avoided

![Pie chart showing distribution of projects:](chart.png)
Innovation Fund – SSC 2022 open till 19 September 2023

Launch: 30 March 2023
Deadline: 19 Sept. 2023
Results: Q1 2024

€ 100 Million for grants
+ Project Development Assistance

Call page
CINEA website

AWARD CRITERIA

Degree of innovation
GHG emission avoidance (including quality of calculations)
Project maturity
Scalability
Cost efficiency (including quality of calculations)

+ Bonus points
  - Net Carbon Removals
  - Other GHG savings
  - Use of electricity from additional renewable sources

4-5 July how-to seminar and virtual orientation session
Revision of the EU ETS

- ETS revision entry into force in June 2023
- Strengthening of ETS ambition from –43% to –62% by 2030 (compared to 2005)
- Strengthen Market Stability Reserve to ensure better market predictability
- More focused free allocation and progressive introduction of the Carbon Border Adjustment Mechanism (CBAM)
- Extension to Maritime sector and a new ETS (ETS 2) for buildings, road transport and non-ETS industry fuels
Key changes to the Innovation Fund following the ETS Directive revision

Revised ETS Directive includes changes on:

1. The overall size of the Innovation Fund increase from 450 million ETS allowances to ca. 530 million ETS allowances.
2. Scope changes: new sectors (e.g. Maritime); medium-scale projects; DNSH from 2025; stronger reference to multiple environmental impacts
3. The introduction of new financial instruments under the Fund (“Competitive Bidding”): Fixed premium, Contracts for Difference (CfDs) or Carbon Contracts for Difference (CCfDs), covering up to 100% of the funding gap
4. Stronger attention to geographical balance
Overview of the draft delegated act revision

“Regular” grants
- Award criteria
- Definition of relevant costs
- Small-, medium- and large-scale projects

Competitive bidding
- General framework
- Calls for proposals, qualifications, ranking and other issues

Project development assistance

Technical assistance for Member States with low effective participation

Strengthened governance
"Regular" grants – Award criteria

• **5 existing award criteria will be kept** but adjusted to accommodate new requirements:
  
  • The potential to reduce overall climate impact will be evaluated (not only GHG emission avoidance potential)
  
  • It will be clarified that scaling-up projects may be considered as "innovative"
  
  • The potential for addressing multiple environmental impacts and contribution to circularity and zero pollution objectives will be evaluated as part of the "replicability" criterion (previously “scalability”)
  
  • The wording for cost-efficiency criterion will be simplified
  
  • **Possibility to apply an additional award criterion** in the context of sector-specific call or topic
Grants - Definition of small- and medium-scale projects

<table>
<thead>
<tr>
<th></th>
<th>Small-scale projects</th>
<th>Medium-size projects (NEW)</th>
<th>Large-scale projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current IF Regulations</td>
<td>Up to EUR 7.5 million</td>
<td>n/a</td>
<td>Above 7.5 million</td>
</tr>
<tr>
<td>Proposed changes</td>
<td>Up to EUR 20 million</td>
<td>Above EUR 20 million and up to EUR 100 million</td>
<td>Above EUR 100 million</td>
</tr>
</tbody>
</table>
"Regular" grants - Relevant costs

1. **Update of Relevant Costs definition**: mention of « economic revenues » and « operational benefits »

2. Preparation for **simplification of the guidance on Relevant Costs (Annex B)** as of the next call for proposals

   ✓ « **No Reference** » to become default methodology (the sum of actual costs/benefits/revenues)

   ✓ « Reference Plant » methodology (the sum of actual costs/benefits/revenues compared to a counterfactual scenario) would still be possible

   ✓ « Levelised costs » methodology would no longer be used

3. **Simplified methodology would apply to large-, medium- and small-scale projects**
Competitive bidding procedures chapter

- New chapter mirroring the “provisions applicable to grants”: “provisions applicable to support awarded on basis of a competitive bidding procedure”
- **Competitive bidding = auctions**
- Types of support:
  - contracts listed in Article 10a(8) of ETS Directive
  - **pilot auctions** will award fixed premiums for renewable hydrogen (grants under the Financial Regulation) → the European Hydrogen Bank
  - in the future, **Contracts for Difference or Carbon Contracts for Difference** could be awarded
  - In the future other types of low-carbon products could be auction goods
Competitive bidding procedures principles

Auction design and principles (aligned with CEEAG guidelines)

• Auctions need to be **competitive** (open, clear, transparent and non-discriminatory)

• Auctions need to be **based on objective criteria** defined *ex ante* in accordance with the objectives of the ETS Directive

• Auctions need to be **designed in a way to minimise the risk of speculative bidding**

• Auctions need to be have a binding constraint (budget or volume) → **not all bidders will receive aid**

• **ex-post adjustments** to the bidding process outcome must be avoided
Competitive bidding procedures stages

1. DG CLIMA publishes an auction call.
2. Bidders submit qualification documents and bids (EUR/kg of H2).
3. Bidders' qualification documents are checked and bids are ranked on price by CINEA.
4. Bids awarded by CINEA until budget cap is reached; auction cleared.
5. Auction outcomes are published.
6. Winners sign contract with CINEA.
7. Project realization and construction.
8. Winners receive support upon production of H2, by volume.

Public Consultation on Auction Terms and Conditions.
### Project development assistance (PDA)

<table>
<thead>
<tr>
<th>Current situation</th>
<th>Issues</th>
<th>Target situation</th>
</tr>
</thead>
</table>
| ▪ PDA aims to improve the maturity of your project through high-quality technical and financial advisory support | ➢ Limited number of projects can currently benefit from PDA  
➢ The timetable for obtaining a PDA is aligned with that of calls for proposals for grants and a project can only benefit from a PDA if it has first applied to such a call for proposals | ✓ Projects will be able to apply for PDA regardless of whether they applied for a grant (‘open PDA’)  
✓ Projects that applied for an IF grant and met some of the award criteria may have their applications automatically considered for PDA |
| ▪ Projects that applied for an IF call for proposals and met all the criteria except the maturity criteria are eligible for PDA | | |
| ▪ CINEA longlists project that have potential, the EIB shortlists those projects and may award PDA | | |
## Implementation Timeline 2023

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 June</td>
<td>Stakeholder Workshop on next calls and auctions</td>
</tr>
<tr>
<td>4-5 July</td>
<td>Workshop on 3rd small-scale call for proposals</td>
</tr>
<tr>
<td>End June</td>
<td>Publication of IF DR for public feedback</td>
</tr>
<tr>
<td>July</td>
<td>Results of 3 LSC evaluation</td>
</tr>
<tr>
<td>End July</td>
<td>Adoption of IF DR</td>
</tr>
<tr>
<td>Early September</td>
<td>Auctions Final Terms and Conditions published</td>
</tr>
<tr>
<td>September</td>
<td>ISC on next Financing Decision</td>
</tr>
<tr>
<td>End September</td>
<td>DR enters into force</td>
</tr>
<tr>
<td>September</td>
<td>IFEG meeting + Consultation of MS on draft Financing Decision</td>
</tr>
<tr>
<td>19 September</td>
<td>Deadline 3rd small-scale call for proposals</td>
</tr>
<tr>
<td>November</td>
<td>4th Calls for proposals for grants launched (small-, medium- and large-scale)</td>
</tr>
<tr>
<td>December</td>
<td>First pilot auction launched</td>
</tr>
<tr>
<td>January 2024</td>
<td>(planned) new Project Development Assistance</td>
</tr>
</tbody>
</table>
Project fiches for on-going projects

[Link Innovation Fund Project fiches]

Innovation Fund Dashboard

[Link Innovation Fund Dashboard]
Innovation Fund Country fact-sheets: fully updated in mid-December

Link Innovation Fund country fact-sheets
Communication Material available

DG CLIMA website
CINEA website

Innovation Fund Dashboard
Country Fact-Sheet

Project Fiches
Featured Projects

Innovation Fund Progress report
JOIN AS PROJECT EVALUATOR

- **Individual** evaluation
  - To be organised fully remotely from your office or home at your best convenience

- **Consensus group**
  - Discussion with other fellow evaluators
  - Either in Brussels or virtually

- **Confidentiality and conflict of interest rules** apply

---

Check [CINEA website](https://cinea.ec.europa.eu) for the application process!
Highlight on future events

EUSEW 2023
Boosting innovation and investments through carbon pricing
22 June 2023
More info

Small-scale call 2022
Workshop and orientation sessions
4&5 July 2023
More info

Small-scale call 2022
Deadline for applications
19 September 2023
More info
Thank you


@EUClimateAction
@cinea_eu

European Climate, Infrastructure and Environment Executive Agency
EUClimateAction
CINEATube
THANK YOU