



# Innovation Fund 1<sup>st</sup> Knowledge Sharing workshop Financial Close

*15 September 2022*





# Welcome and Introduction

*Roman Doubrava, Head of Unit Innovation Fund, CINEA*



# A few rules for today

- Please mute yourself
- Please open the camera only when you speak
- No questions in Webex chat
- Post your questions/comments throughout the event in Slido **#IFKS2022** passcode **IFK22workshop** and like/vote on the questions. Please feel free to react on any speaker/participant. We will come back during the Q&A sessions.
- Please identify yourself in Slido (your name, project acronym)
- Raise your hand in Webex when you want to contribute to the discussion



# Agenda

- 10.00**            **Welcome and introduction to the workshop**
- Roman Doubrava, CINEA
- 10.10**            **Objectives and expectations of the knowledge sharing in the context of the Innovation Fund**
- Maria Velkova, DG CLIMA
- 10.20**            **Knowledge sharing - the initial observations from the reports**
- Agata Prządka, CINEA
- 10.35**            **Initial observations of the phase up to the FC**
- Alexandre Cobbaert, CINEA
- 10.45**            **Progress towards the FC – IF projects contributions: DrossOne V2G Parking, NorthFlex, Green Foil, EB UV, SKFOAAS, TANGO**
- 12:15**            **Lunch Break**

# Agenda

- 13.20**            **Financial Close and Knowledge Sharing experience in NER300 in project Nordsee One**
- 13.40**            **Q&A and moderated discussion**
- 14.25**            **Knowledge Sharing template feedback**  
  
Agata Prządka, CINEA
- 15.10**            **End of event**

# The objectives of the meeting

- To outline the key objectives of the Knowledge Sharing framework in the IF
- To discuss progress towards the Financial Close and the related challenges and solutions
- To seek elements of common concern and learn from each other
- To shape the knowledge sharing framework together

Sensitive information from the beneficiaries is fully preserved – not shared.  
Only **anonymised and aggregated** information will be shared.  
Beneficiaries decide what level of information they want to share in the meeting

In this meeting limited aggregated information is presented because of the small sample of the KS reports

# Innovation Fund today

37  
projects

7 large-scale  
30 small-scale

1.25 billion €  
EU contribution

87  
beneficiaries

85  
unique  
beneficiaries

118 million t CO<sub>2</sub> eq  
Absolute GHG  
emission avoidance

# ... and tomorrow

54  
projects

Additional 17 large -  
scale projects

3 billion €  
EU contribution

120  
beneficiaries

114  
unique  
beneficiaries

251 million t CO<sub>2</sub> eq  
Absolute GHG  
emission avoidance

# Technology categories for the KS purposes

(37 small and large scale projects)

Technology tab	Number of projects
EII	13
Hydrogen	6
Intra-day electricity storage	6
CCS	5
EII Bio	3
Other energy storage	3
Solar	3
Manufacturing	3
Wind	2
Renewable Heating/Cooling	2
Geothermal	1

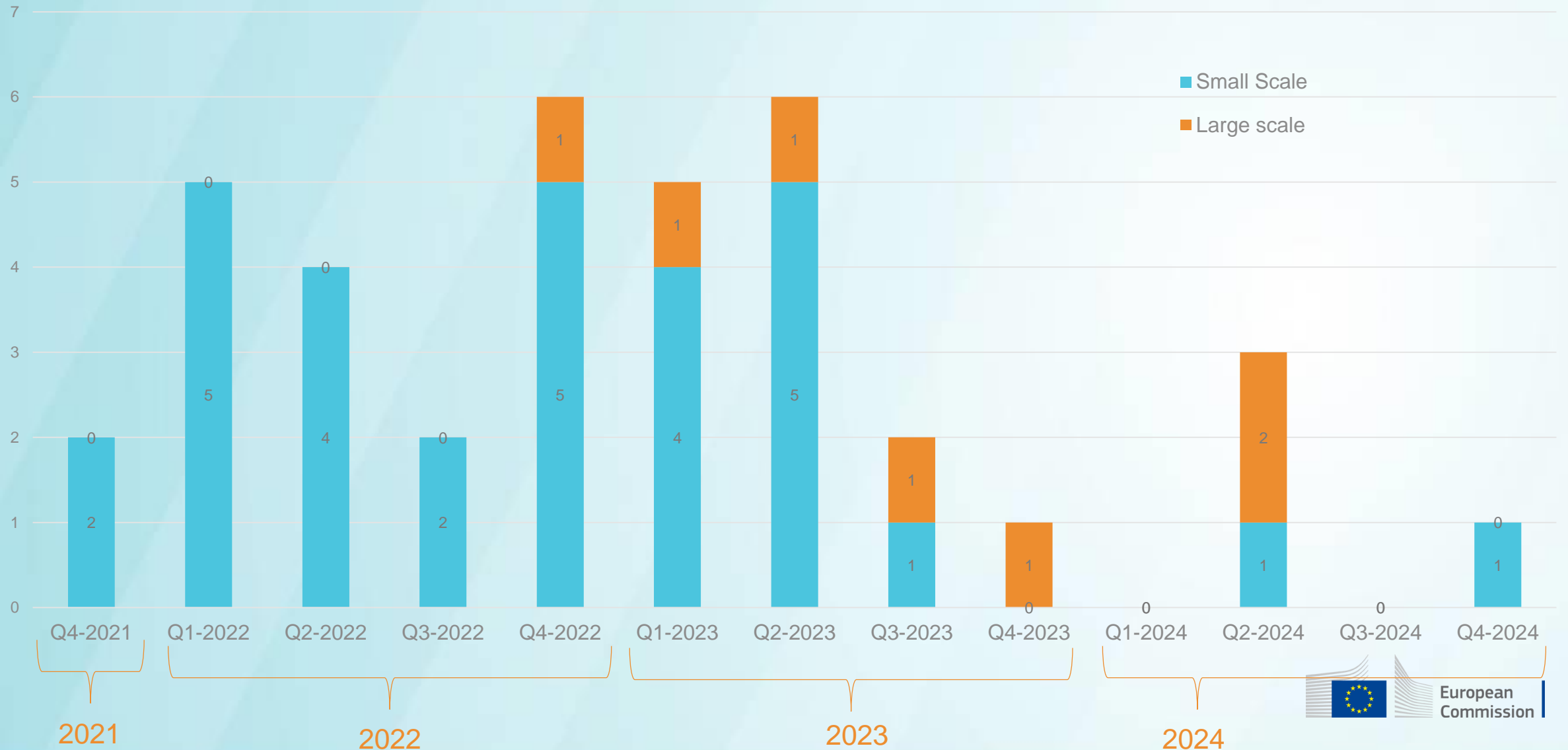


# Technology categories for the KS purposes

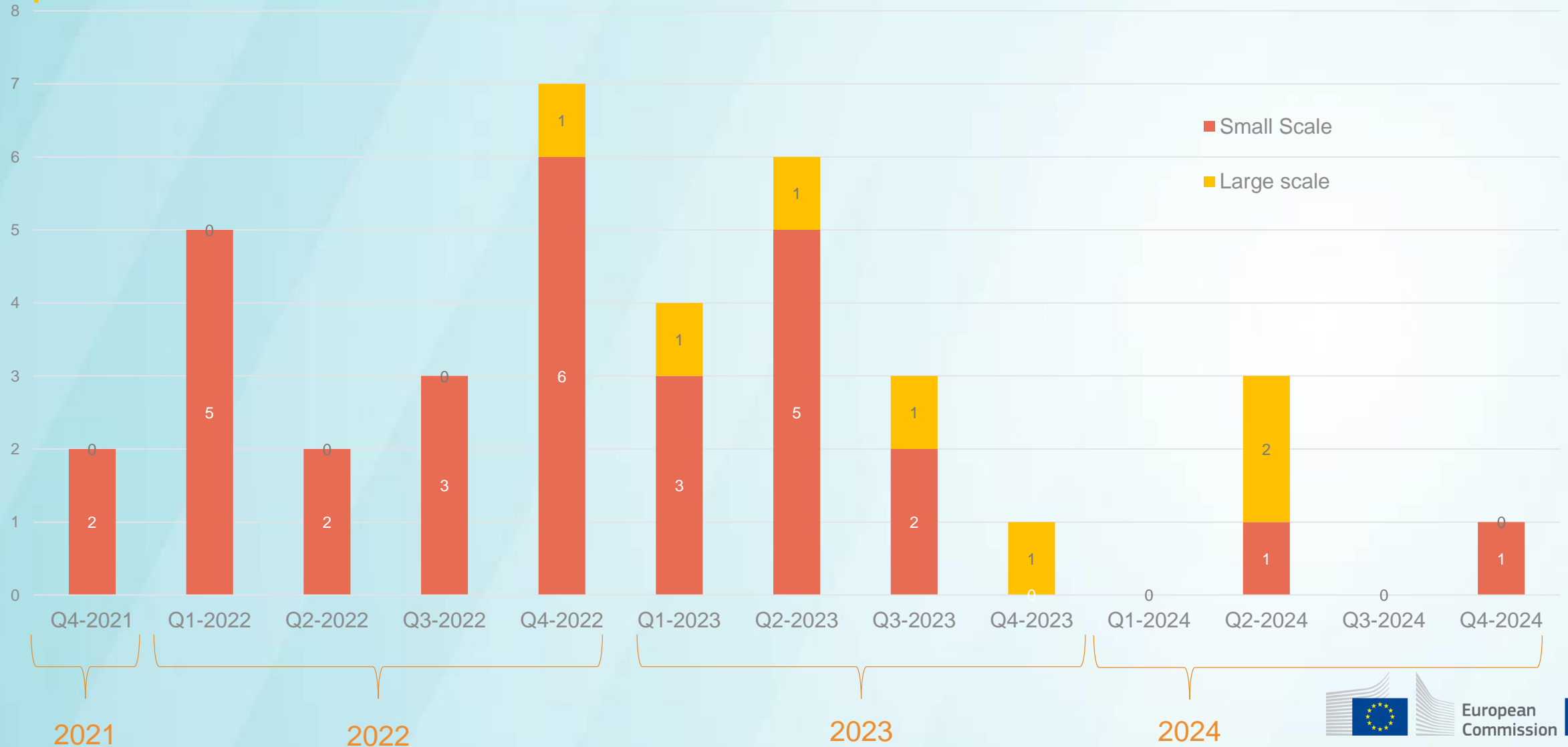
(54 small and large scale projects)

Technology tab	Number of projects
EII	22
Hydrogen	10
CCS	9
Intra-day electricity storage	6
Manufacturing	6
EII Bio	4
Other energy storage	3
Wind	3
Solar	3
Renewable Heating/Cooling	2
Geothermal	1

# Financial Close of 37 IF projects at the GA signature



# Financial Close of 37 IF projects amended



# 6 projects that achieved the Financial Close

as of 1 September 2022\*

\*some payments still ongoing

SKFOAAS	<ul style="list-style-type: none"><li>• Refineries</li><li>• Q3-2022 Planned Entry into Operation</li></ul>	EiO 2022
EB UV	<ul style="list-style-type: none"><li>• Iron and steel</li><li>• Q1-2023 Planned Entry into Operation</li></ul>	
DrossOne V2G Parking	<ul style="list-style-type: none"><li>• Intra-day electricity storage</li><li>• Q1-2023 Planned Entry into Operation</li></ul>	EiO 2023
Green Foil project	<ul style="list-style-type: none"><li>• Other energy storage</li><li>• Q1-2023 Planned Entry into Operation</li></ul>	
NorthFlex	<ul style="list-style-type: none"><li>• Intra-day electricity storage</li><li>• Q2-2024 Planned Entry into Operation</li></ul>	EiO 2024
EVVE	<ul style="list-style-type: none"><li>• Intra-day electricity storage</li><li>• Q1-2025 Planned Entry into Operation</li></ul>	EiO 2025

# Objectives and expectations of the knowledge sharing in the context of the Innovation Fund

*Maria Velkova, Deputy Head of Unit, DG CLIMA*



# Knowledge sharing for the Innovation Fund

- **Objectives**
  - de-risking innovative low-carbon technologies with regard to scaling up to commercial size;
  - acceleration of their deployment;
  - increasing the undertaking of, and confidence in these technologies by the wider public (esp. relevant for some projects such as CCS);
  - maintenance of a competitive market for the post-demonstration deployment of the technologies.
- **Knowledge sharing is linked to communication and dissemination** but with more detailed, practical information and focused audience.
- Therefore, it requires **more active role on all sides**: projects, CINEA, Commission, wider specialised audience.

# Knowledge sharing for the Innovation Fund

- ✓ **Prerequisites** for achieving the objectives:
  - Projects fulfilling their obligation to share structured knowledge: CINEA checks if KS reports are complete and comprehensive;
  - Making relevant information available in a timely manner to the appropriate parties that can benefit from it;
  - Safeguarding any commercially sensitive information: only aggregated information will be made public of such information: aggregation: only if sufficient number of projects report and no link can be made to sensitive data on a specific project;
  - No obligation to disclose if risk of reverse engineering/ability to obtain patent.
- ✓ **Projects participate actively** in closed and open-door events organised by CINEA
- ✓ **Projects deliver on their KS plans** (what projects will do *in addition* to the obligatory knowledge-sharing reports which will follow the KS template)
- ✓ **Projects proactively and systematically make publicly available** on their websites information relating to projects (communication) and also other channels, *actively acknowledging IF support*

# NER 300 lessons learned from KS activities

- The **KS methodology worked well** and no significant problems or concerns stemming from the application of the methodology arose, however projects of the same category would have benefitted from an enhanced exchange of knowledge should there have been more projects funded
- The **limited number of projects of the same type** limited also the possibilities for aggregation and drawing conclusions for the performance of the supported innovative technologies:
  - **Bioenergy:**
    - VERBIO during 2017, 2018, 2019 and 2020;
    - BEST during 2016 and 2017;
  - **CSP:** MINOS during 2020
  - **Smart grids:** PAN during 2020
  - **Wind energy:**
    - (onshore) Windpark Blaiken during 2015, 2016, 2017, 2018 and 2019;
    - (onshore) Windpark Handalm during 2018, 2019 and 2020;
    - (offshore) Nordsee One during 2018, 2019 and 2020;
    - (offshore) Veja Mate during 2017, 2018, 2019 and 2020;
    - (offshore) VERTIMED for 2019 and 2020;
    - (offshore) WindFloat Atlantic for 2020.



# NER 300 lessons learned from KS activities\*

- Nonetheless, some useful observations and learnings were made in the areas of technical set-up and performance, costs, project management, health and safety e.g.:
  - On share of investment **costs**: capital equipment - development costs - installation and commissioning or share of operation costs: e.g. O&M, services, staff costs, overheads, waste disposal, local rates and taxes, insurance, etc.; but also comparison with industry studies;
  - Improvements made to **technical set-up**, reasons for downtime and how to deal with them; planned vs unplanned O&M and their evolution;
  - Effective **project management** techniques, e.g.:
    - business model definition considering possible deviations at the start;
    - manage suppliers to deliver as fast and as much as possible, defining clear contractual responsibilities, defining penalties in contracts to stay within schedule
    - the involvements of the stakeholders at an early stage, in particular producers and customers;
    - close observation of regulatory developments and fast response on changes is highlighted.

For further details see especially the [last annual report](#).

*\*Note: Knowledge sharing was limited to the period of operation*

# NER 300 lessons learned from KS activities

- The aggregated knowledge sharing reports are published on the [NER 300 webpage](#);
- Projects benefited from reflecting in a structural way on the performance of their technologies year on year;
- Limited number of events were possible to be organised: 1 on bioenergy (closed-door) and 2 on wind energy (open and closed door).

# Knowledge sharing - the initial observations

*Agata Prządka, Project Manager Coordinator, CINEA*



# How will we do the Knowledge Sharing?



\* Publicly available information only

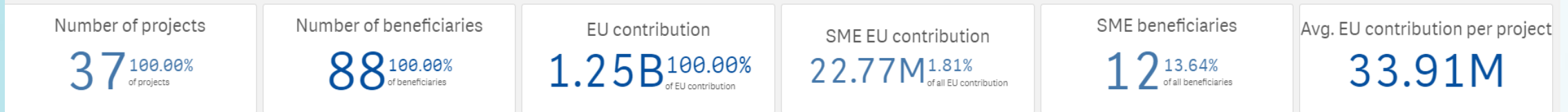
\*\* Aggregated and Anonymised information only

# IF Dashboard

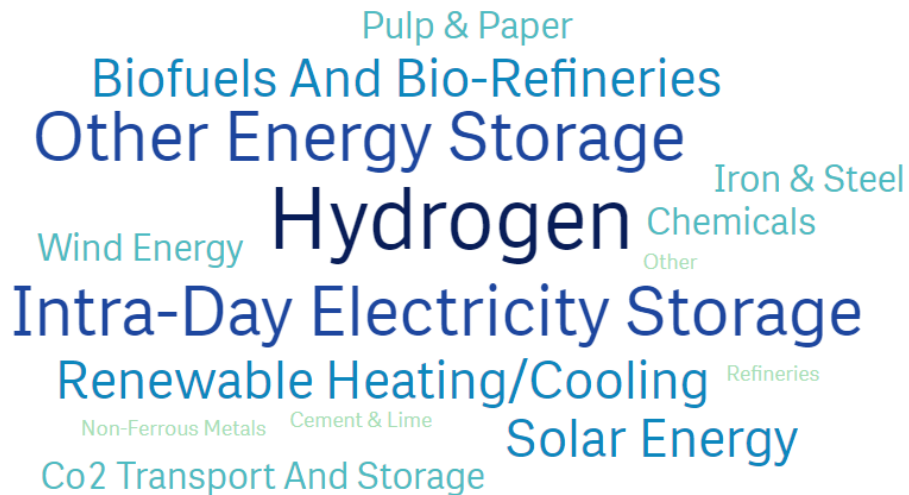
[Innovation Fund - Project Portfolio - Innovation Fund - Portfolio of signed projects | Sheet - Qlik Sense \(europa.eu\)](#)

## Innovation Fund - Portfolio of signed projects

Call deadline year	Beneficiary SME (Y/N)	Project location country name	Call name	Topic description	Beneficiary role	Beneficiary country name	Beneficiary country group
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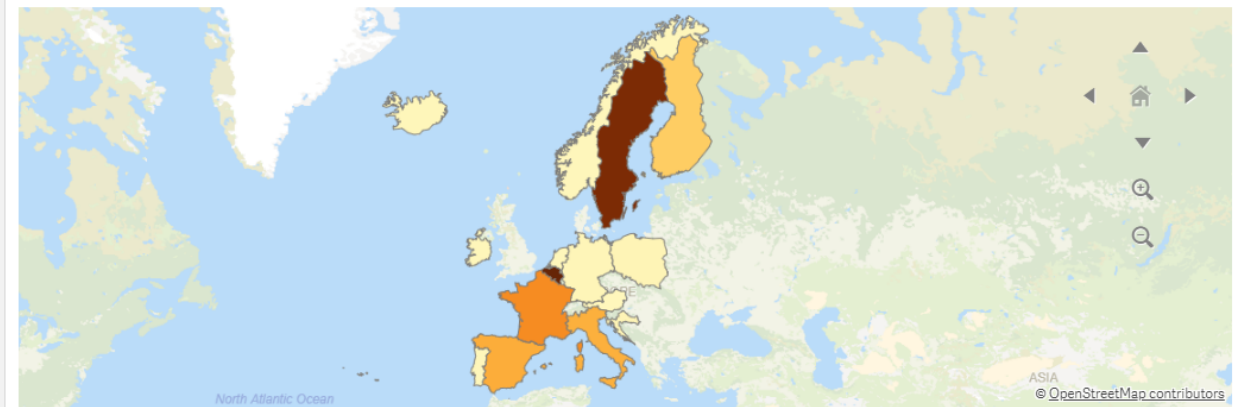
### Structured keywords per project



### EU contribution by

<b>Project location</b>	Beneficiary country	Beneficiary NUTS 1	Beneficiary NUTS 2	Beneficiary NUTS 3
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Use the buttons to change the view of the map



### Beneficiaries and EU contribution by beneficiary country/project location



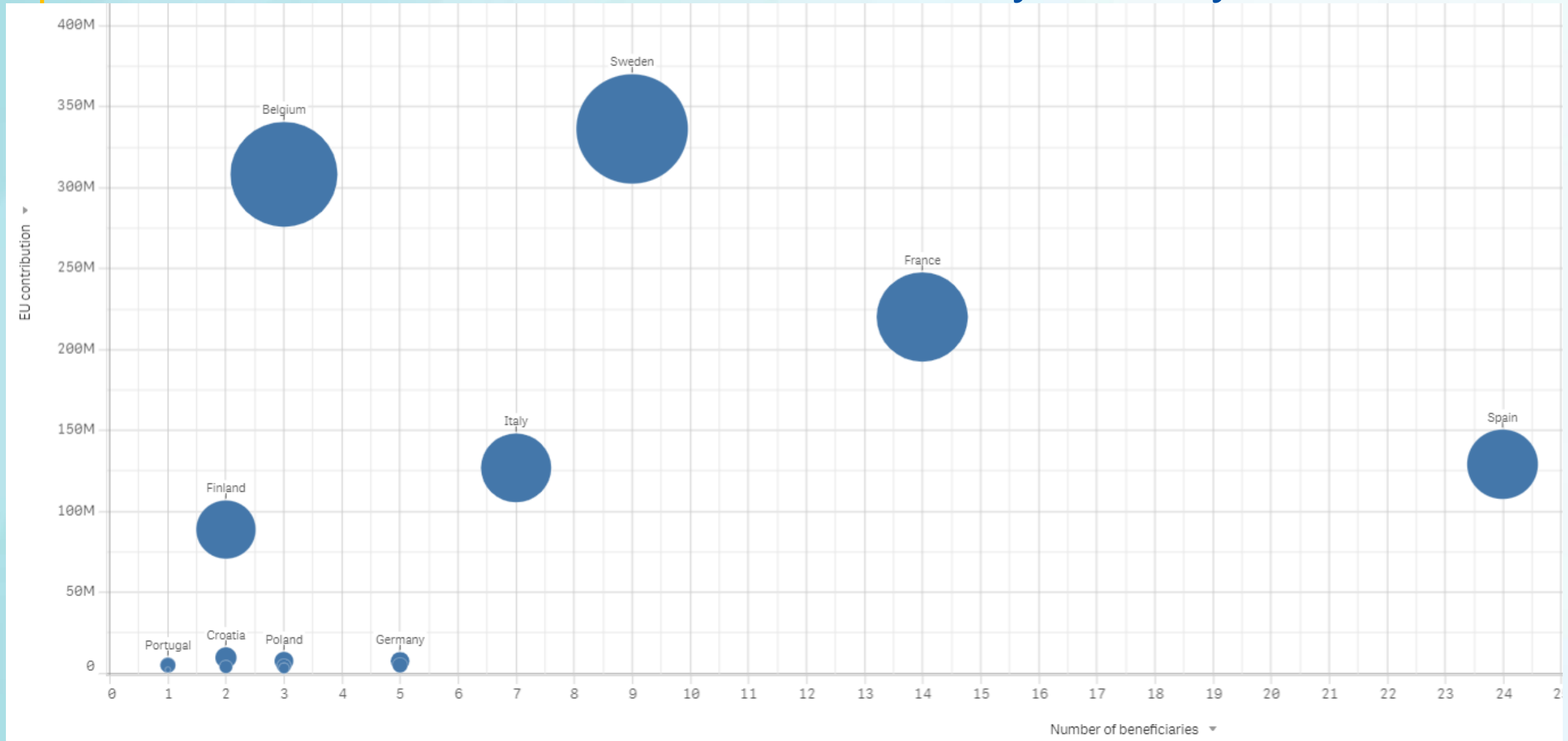
### Number of projects / EU Contribution by signature and call deadline year



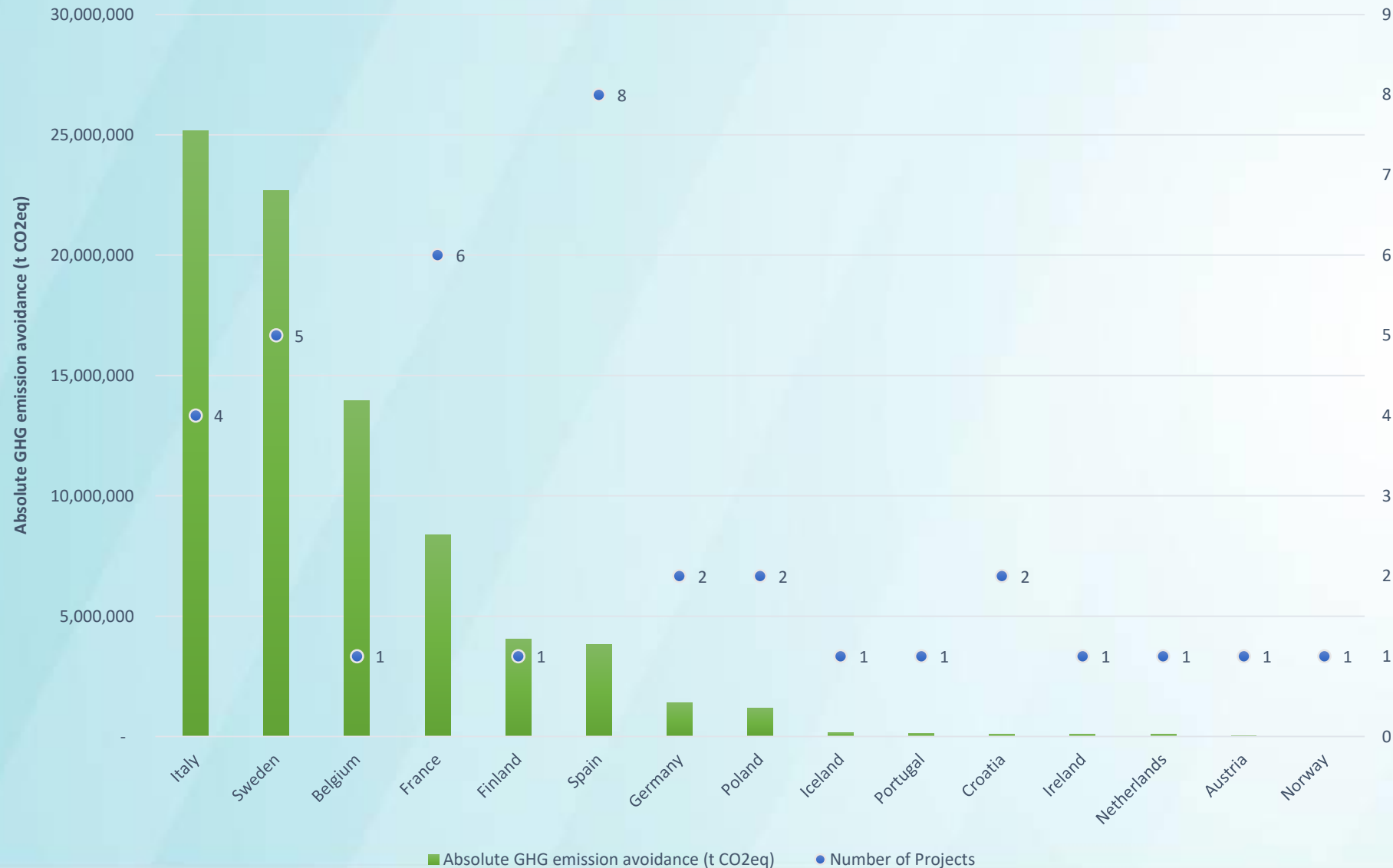
### Number of projects and EU contribution by type



# IF Beneficiaries and EU contribution by country



# Absolute GHG emission avoidance (t CO<sub>2</sub>eq) of the IF projects per location country



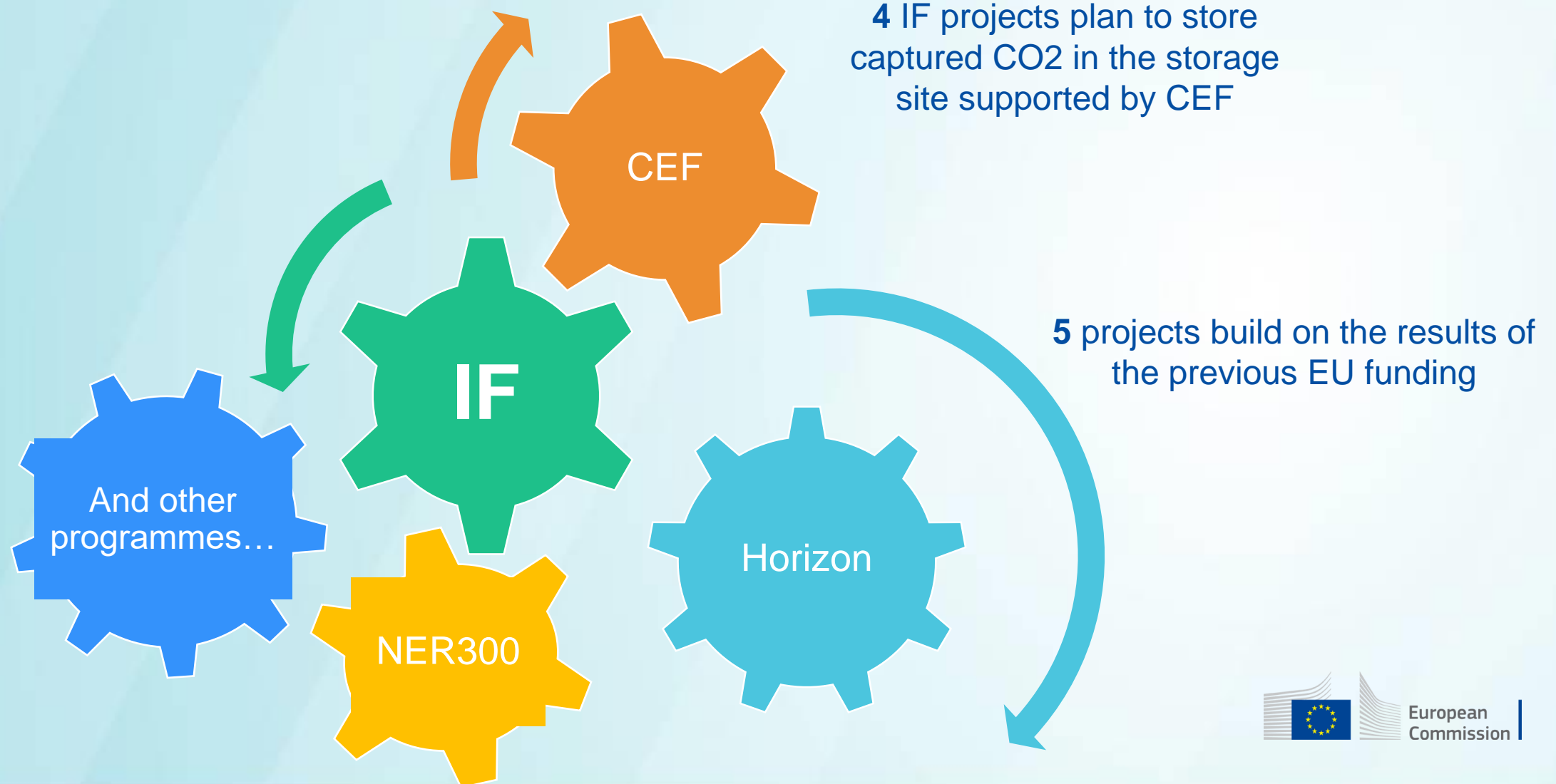
# What can we focus on in the future

A few examples:

- The evolution of the hydrogen costs and price
- The evolution of the backbone infrastructure
- The shifts in costing and timing of projects
- The technology and production challenges in a particular sector
- The regulatory barriers



# Synergies within other EU programmes



# CINEA Programmes

**EUROPEAN MARITIME FISHERIES AND AQUACULTURE FUND**

**LIFE PROGRAMME**

**INNOVATION FUND**



**CONNECTING EUROPE FACILITY 2**  
Transport and Energy

**RENEWABLE ENERGY FINANCING MECHANISM**

**JUST TRANSITION MECHANISM**  
*Public Sector Loan Facility pillar*

**HORIZON EUROPE**  
Climate, Energy and Mobility

# Initial observations of the phase up to the FC

*Alexandre Cobbaert, Senior Financial Engineer, CINEA*



# Initial observations based on IF today

## Progress to reach Financial Close

### Projects currently in IF portfolio<sup>1</sup>

- 6 have reached FC (all SSC)
- On back of challenges (more on next slide), some projects have asked to postpone FC
- Most often (but not always), shift of FC leads also to shift of EiO

## Financing mix

### Projects which have reached FC

- So far mostly fully equity funded<sup>1</sup>
- Limited state aid in funding mix

### Projects which still need to reach FC

- 60% full equity / 40% with debt in funding mix
- 25% anticipating to receive state aid support

1. Current Innovation Fund portfolio of 37 projects: 30 SSC + 7 LSC; 2. We treat shareholder loans as equity

FC = Financial Close; EiO = Entry into Operation; SSC = Innovation Fund Small Scale Call project

# Main challenges linked to Financial Close

Key topics	Examples of challenges	Frequency <sup>1</sup>
Equipment / feedstock supply	<ul style="list-style-type: none"><li>• Unavailability of key equipment within expected timelines</li><li>• Supply chain disruption impacting equipment logistics;</li></ul>	High
Permits / Gov. approvals	<ul style="list-style-type: none"><li>• Permits problematic to obtain with long procedures</li><li>• Lack of visibility on timing of Government approvals</li></ul>	High
Contracting	<ul style="list-style-type: none"><li>• Difficult to close negotiations with suppliers/offtakers</li><li>• Challenge to find qualified workforce</li></ul>	Medium
Increase in CAPEX	<ul style="list-style-type: none"><li>• More expensive building materials and increase in manufacturing costs are passed on to contractors</li></ul>	Medium
Energy supply	<ul style="list-style-type: none"><li>• More costly to produce in face of recent geopolitical events</li><li>• Suppliers unwilling to commit to price amid volatility in market</li></ul>	Low
Financing	<ul style="list-style-type: none"><li>• Eligibility and process for Gov./regional subsidies not clear</li><li>• Banks demanding more security than originally expected</li></ul>	Low
Technical issues	<ul style="list-style-type: none"><li>• Unexpected technical difficulties</li><li>• Need to adapt specific aspects of the project</li></ul>	Low



1. Based on number of times each of the topics are observed across IF portfolio projects today AND only if they have significant impact

# **Progress towards the FC**

## **Contributions by the projects**

# Q&A and moderated discussion

# Projects that have reached FC

- Are there any lessons you could share to fellow projects on what factors are important to meet FC?
- What were your major challenges and how did you address them?



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## Audience Q&A Session

① Start presenting to display the audience questions on this slide.

# Projects that have not yet reached FC

- Are these first lessons learnt from the projects that have already reached FC useful for you?
- Any reaction or comment from your project's perspective?

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## Audience Q&A Session

① Start presenting to display the audience questions on this slide.

Poll

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**Is, at this day, your project on track to reach FC as originally planned in the GA?**

ⓘ Start presenting to display the poll results on this slide.

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**To which extent do the following challenges affect your project in terms of reaching Financial close?**

① Start presenting to display the poll results on this slide.

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**Since signature of the GA, to what extent has the current turmoil on the energy and commodity markets been affecting you in the process to reach Financial Close?  
(multiple answers are possible)**

① Start presenting to display the poll results on this slide.



- What are the critical measures to stay on track?
- Any lessons from your experience that you can share with the audience?

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## Audience Q&A Session

① Start presenting to display the audience questions on this slide.

- What are the best mitigation measures to address the risk of financial close delay (including due to energy prices increase and supply chain disruptions)?



# Knowledge Sharing template feedback

*Agata Prządka, Project Manager - KS Coordinator, CINEA*



# The KS template

The KS objective is to de-risking innovative low-carbon technologies and accelerate their development

- Excel format is a temporary (but mandatory) solution
- Bugs and suggestions on the format are taken into account for the next version of the template
- In many cases insufficient quality of contributions in the first submission



**Annex 1 and 5**  
of your grant  
agreement

# KS template content

- Content based on NER300 programme
- Some indicators moved from Part C to the KS template
- It must cover the full-lifecycle of the project
- Dissemination level 1 (sensitive) level 2 (public)
- To be filled in at project financial milestones

Content	Technology tabs	Additional tabs
<ul style="list-style-type: none"><li>• Technical Set-up and Performance</li><li>• GHG emission avoidance</li><li>• Cost and revenues</li><li>• Other financing questions</li><li>• Project Management</li><li>• Environmental Impact</li><li>• Health and Safety</li><li>• Synergies with other programmes</li><li>• Scalability</li><li>• Timing</li></ul>	<ul style="list-style-type: none"><li>• General – obligatory for all projects<ul style="list-style-type: none"><li>• EII</li><li>• Hydrogen</li><li>• Bio</li><li>• CCS</li><li>• Wind</li><li>• Geothermal</li><li>• Solar PV</li><li>• CSP</li><li>• Ocean</li><li>• Intra-day electricity storage</li><li>• Other storage</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Measurement tabs (e.g. wind speed, electricity production profiles)</li><li>• Diagrams</li><li>• Layout</li></ul>

# Feedback received

- *“The requested information is very exhaustive and for some data it may be a bit difficult to reach the required level of detail.”*
- *“We can provide the total OPEX per technology brick. However breaking it down towards each detail will prove to be difficult.”*
- *“Some of the data may require high confidentiality”*
- *“When it comes to CCS, the information about the well, its geology, etc., is beyond the project control. However, sharing information regarding scope, guarantees and any special conditions in a service contract for transport & storage would be of more interest.”*

How should we work together to share the knowledge?

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**1. In your opinion the template serves the KS objectives**

ⓘ Start presenting to display the poll results on this slide.

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## 2. The level of detail requested is

① Start presenting to display the poll results on this slide.

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**3. The KS template should also focus on numeric data, such as costs or performance (provided that the data is aggregated and anonymized before sharing) to allow for depiction of trends based on hard data**

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**4. To what extent should the KS template focus on narrative information, such as challenges and lessons learned (provided that the data is aggregated and anonymized before sharing)**

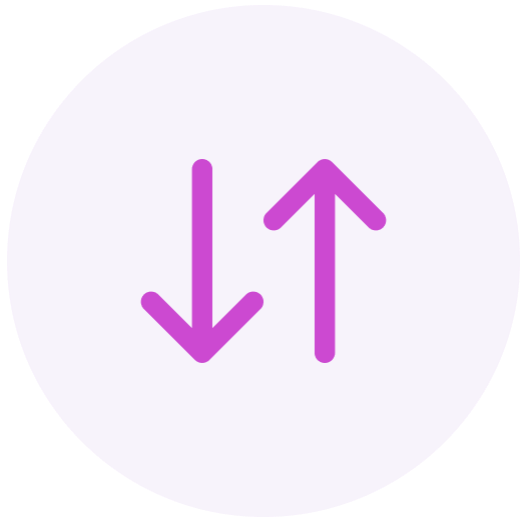
① Start presenting to display the poll results on this slide.

What can help you to share the knowledge?

What aspects should be covered  
by the template  
(and they are not covered now)?

What are the areas  
which you would like to discuss  
in a closed-door meeting?

**slido**



**8. CINEA can organise synergy meetings with other EU funded projects in the selected technological areas. Having in mind the technological pathway your project develops, on what area you like CINEA to organise a synergy meeting?**

① Start presenting to display the poll results on this slide.



Thank you!

