

# Welcome to the CETPartnership Annual Conference!

We will start at 09:00 CEST



#### Bridging the System Transition Gap – From Early Innovation to Demonstration and Deployment







Moderation:
Andreas Corusa
Head of Knowledge Community Management



Co-Moderation: **Tanja Suni**Head of Impact Management

22 October, 09:00 – 12:30 CEST

**Annual Conference 2025** 





#### **Practicalities**

- The meeting will be recorded, and the recording will be published for future watching
- 0

• Online data declaration: Please be aware that your name will be displayed in the list of participants as well as in the chat window



Please ask questions via SLIDO







## **Today's Agenda**

09:00 - 09:55	introduction & Presentations
	<ul> <li>Introducing the Knowledge Community and Impact &amp; Exploitation activities</li> </ul>
	<ul> <li>Presentation by Maria Velkova, EC Deputy Head of Unit</li> <li>Finance for Innovation</li> </ul>
	<ul> <li>Presentation by Dr. Alex Cruz, Emerging Technologies Leader – Baker Hughes</li> </ul>
	○ <b>Q&amp;A</b>
10:00 - 11:45	Two Breakout-room Sessions (in parallel)
	<ul> <li>Knowledge Community Session: Peer Learning for System Transition Challenges</li> </ul>

**Demonstration** 

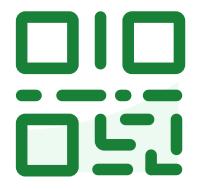
Introduction C Dresentations

11:45 - 12:10	Wrap up and next steps

12:10 – 12:15 Final words from the coordinator



o **Impact Session:** *Investor Readiness for System-Scale* 



#### Join at slido.com #8534529





#### Who are you – SLIDO Question

Who are you?

Multiple Choice Poll 2 40 votes 3 40 participants

Applicants / Potential applicants - 11 votes

28%

Funded project - 15 votes

38%

Other - 13 votes

slido





# Which organisation do you represent – SLIDO question



Which organisation do you represent?

Research Institute - 11 votes

28%

Academia (University) - 6 votes

15%

Company - 7 votes

18%

Governmental Body - 11 votes

28%

NGO - 1 vote

3%

Other - 3 votes







# What is the Clean Energy Transition Partnership?

# We facilitate and accelerate the Clean Energy Transition in Europe and beyond

By aligning innovation priorities, pooling funding and leveraging knowledge and experience from more than 30 countries, together with about 50 public funders

We have established an impactful transnational innovation community driving the Clean Energy Transition.

#### What we mean by impactful:

Projects which inspire action — innovations which are recognized internationally — Transferable solutions which have been adopted by society

#### What we mean by community:

A community of change-makers from researchers, corporates, entrepreneurs, policy makers to visionaries who have created scalable and impactful solutions towards a climate neutral world.





#### **CETPartnership project portfolio**

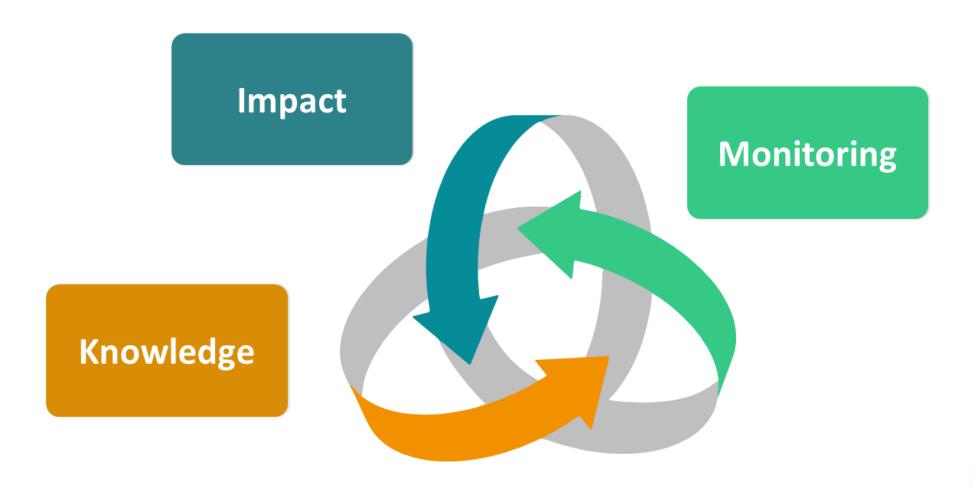
- 3 joint calls carried out
- 163\* projects funded (JC2022, JC2023, JC2024)
- 40 countries involved with 1303 total partners
- 321,57 MEUR project volume, of which:
  - 294 MEUR funding
  - 1,8 MEUR average funding per project



<sup>\*</sup> of which 55 are selected for funding



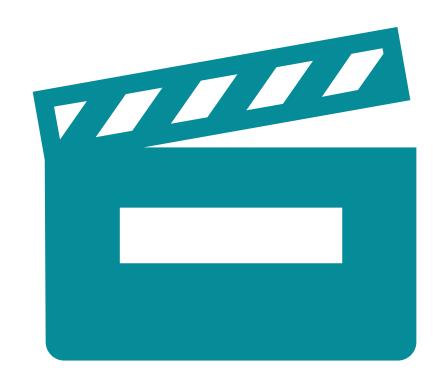
# **Knowledge Community and Impact: Who we are**





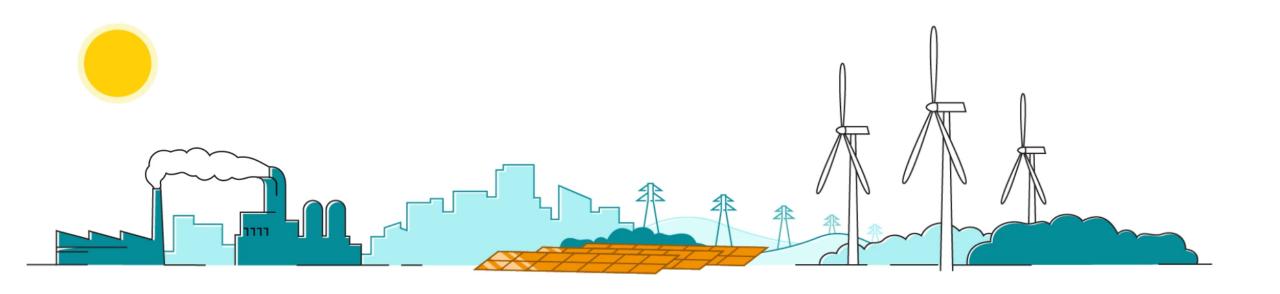


#### What we offer:



**CETP Impact Support Video Guide** 







## **Key Benefits of our Integrated Approach**

- Knowledge sharing and networking
- Accelerated innovation in research
- Advancement of cutting-edge research
- Improved research outcomes and productivity
- Regular impact assessments and metrics tracking





## Join Us and Stay Tuned

- Opportunities for collaboration
- Access to shared resources
- Be part of a growing research community



https://cetpartnership.eu



https://www.linkedin.com/company/cetpartnership/



https://clean-energy-transitionpartnership-2023.cetp.b2match.io/



https://www.youtube.com/@cetpartnership





# What makes a Demonstration Investable?



Maria Velkova

EC Deputy Head of Unit – Finance for Innovation





# What Makes a Demonstration Investable? Lessons learned from Innovation Fund

Maria VELKOVA, Deputy Head of Unit DG CLIMA C.2 (Research and low carbon technology deployment)



#### INNOVATION FUND

Funded by the EU Emissions Trading System

Deploying innovative net-zero technologies for climate neutrality



€40 billion\* available between 2020-2030

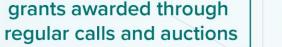




grants awarded through



avoid GHG emissions, boost competitiveness





#### supporting innovation in:



**Energy-intensive** industries



Renewable energy



Energy storage

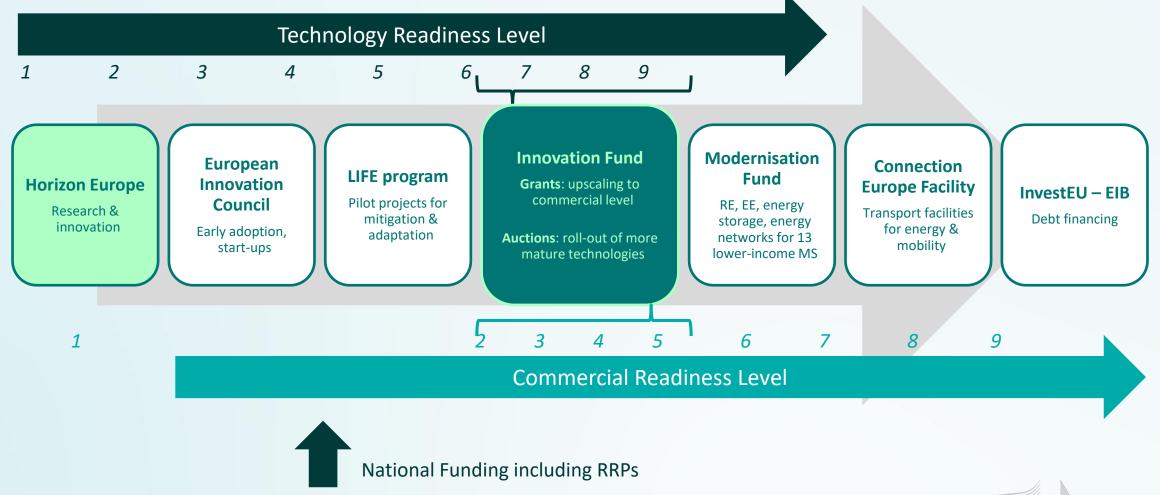


Carbon capture, use and storage



**Net-zero mobility** and buildings

## A targeted projects portfolio



#### **Innovation Fund**

## In a nutshell



217 projects



> €12.9 billion

+ > €3.4 billion under evaluation

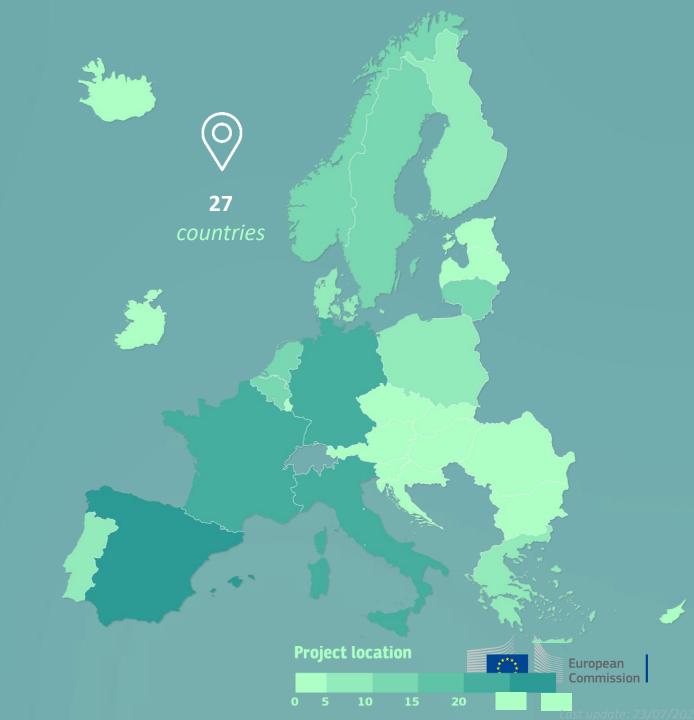


>940 Mt CO<sub>2</sub>e to be avoided\*\* (840 Mt ongoing + 100 Mt GAP)

\*Grant Agreement Preparation

\*\*estimated based on 10 years of operations

Results from the first projects which have passed 1Y of operations

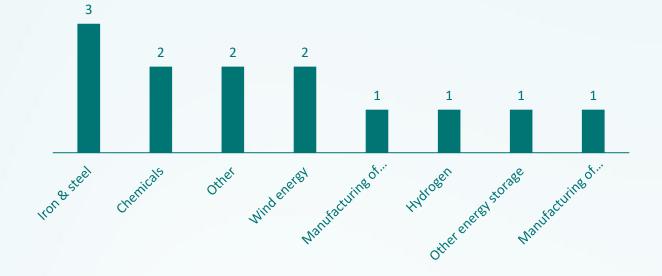


## Moving from R&I to deployment stage

Projects from FP7, Horizon Europe and Horizon 2020 later funded by the Innovation Fund

- There are 13 ongoing Innovation Fund projects previously funded by either FP7, Horizon Europe or Horizon 2020
- The success rate\* of previously funded Horizon/FP7 projects is 32,5% within the Innovation Fund, compared to the overall IF portfolio's success rate of 12%\*\*

Ongoing Innovation Fund projects previously funded by Horizon Europe, Horizon 2020 or FP7



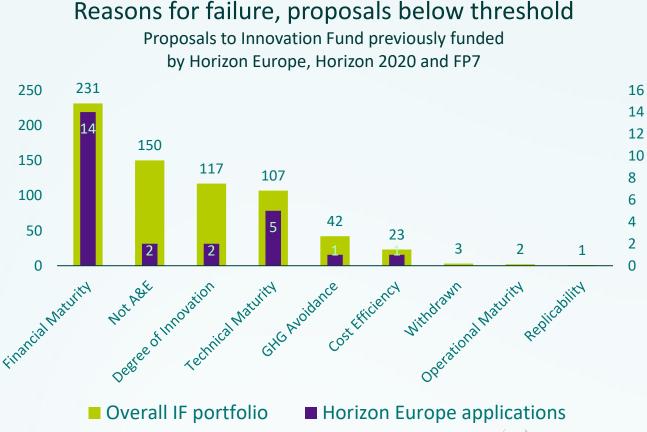


<sup>\*</sup>Success rate defined as nbr of ongoing projects divided by all proposals submitted \*\*Data from IF2021 – IF2023, regular Grant calls and auctions

#### Reasons for failure

Projects from FP7, Horizon Europe and Horizon 2020 applying for the Innovation Fund

- The large majority of previous Horizon/FP7
  proposals fail on 'Financial maturity',
  followed by 'Technical Maturity'
- 'Financial maturity' is also the most common reason for failure for Innovation Fund proposals overall, followed by 'Not A&E' and 'Degree of Innovation'
- 'Degree of Innovation' and 'GHG Avoidance' are criteria where former Horizon/FP7 project do better than the overall IF portfolio





# The required elements for successful exploitation of R&I results towards deployment

Lessons learned from previous IF calls



#### Main issues with the Business Plan

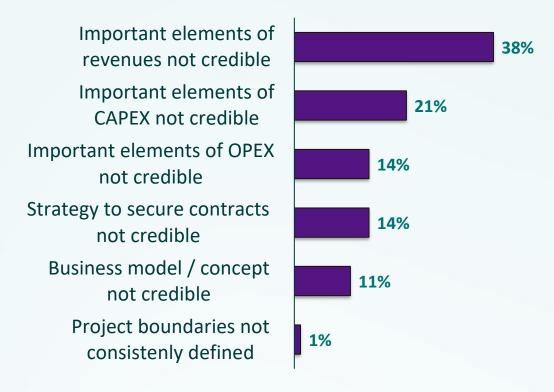
Lessons Learned IF23 Call

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:





- 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:





- 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
- See Annex 3 of call text for minimum requirements on project funding support



### 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



## 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:



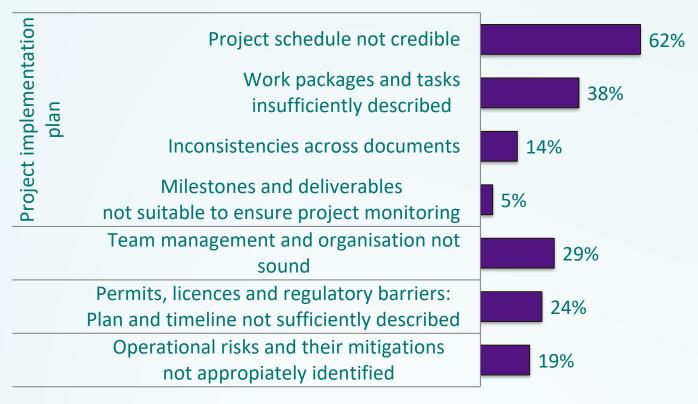
# Operational Maturity: Lessons Learned IF23 Call

#### **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:







#### **Project Development Assistance**

EIB financial and technical experts provide Project Development Assistance (PDA)

to Innovation Fund eligible projects

#### **WORKSTREAM 1**

"open PDA"

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

#### **WORKSTREAM 2**

Following an application to IF Call for Proposals

- After submitting an IF grant application, and if unsuccessful, the project may be eligible for PDA.
- PDA aims to enhance the financial viability and improve the technical maturity of project proposals for submission to future Innovation Fund Calls (although not compulsory) or other EU funding requests, national grant preparation or financing from private sources.
- ✓ Applying or benefitting from PDA is **not dependent** on submitting an application to the Innovation Fund.
- ✓ Under the extended PDA process, new sectoral and geographic targets are in place, and a larger number of projects will be supported.



#### PDA support following a direct request to EIB

#### **Direct request for PDA**

Project promoters can reach out directly to the EIB if they would like to receive project development assistance support for their innovative project.

Interested projects can contact the EIB directly and apply through the dedicated website:

https://www.eib.org/innovation-fund-pda

#### How to apply

Sign up for a contact account to send all inquiries directly to our Innovation Fund team. Once signed up, your company can get in touch with us and apply for project development assistance.

When sending your request, you will need to fill the information requested and provide, if available:

- a business plan and initial financial model,
- a feasibility study and related technical studies,
- → a contracting strategy or related agreements,
- other supporting studies demonstrating project innovation, greenhouse gas emission savings potential and replicability.

Create an account ☑

Sign in Q



# Thank you



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## Let's keep in touch



<u>Climate.ec.europa.eu</u>

<u>Portfolio of IF projects</u>



clima-innovation-fund@ec.europa.eu



@EUClimateAction



Subscribe to the Innovation Fund mailing list



@EUClimateAction



**EU Environment and Climate** 



@EUClimateAction



@ourplanet\_eu





# Setup for today's interactive session





#### What to expect in the group sessions?

We will automatically assign you to one of the rooms

Room 1:	Room 2:
10:00 - 10:45	10:00 - 10:45
Peer Learning for System Transition Challenges	Investor Readiness for Demonstration and Upscaling
Moderator: Andreas Corusa	Moderator: Tanja Suni
11:00 - 11:45	11:00 - 11:45
Investor Readiness for Demonstration and Upscaling	Peer Learning for System Transition Challenges
Moderator: Tanja Suni	Moderator: Andreas Corusa



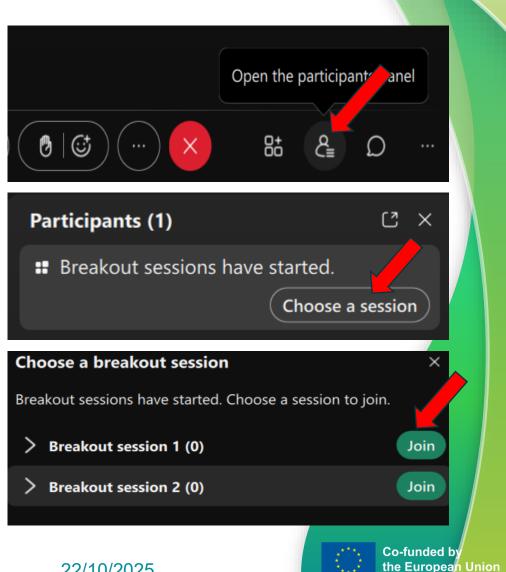


#### How to join breakout rooms

Please go to participants panel on the bottom right

 In the participants panel, please select choose a session at the top.

Click join to enter a breakout-room





## We are currently in breakout sessions

Room 1	Room 2
10:00 - 10:45	10:00 - 10:45
Peer Learning for System Transition Challenges	Investor Readiness for Demonstration and Upscaling
Moderator: Andreas Corusa	Moderator: Tanja Suni
11:00 – 11:45	11:00 - 11:45
Investor Readiness for Demonstration and Upscaling	Peer Learning for System Transition Challenges
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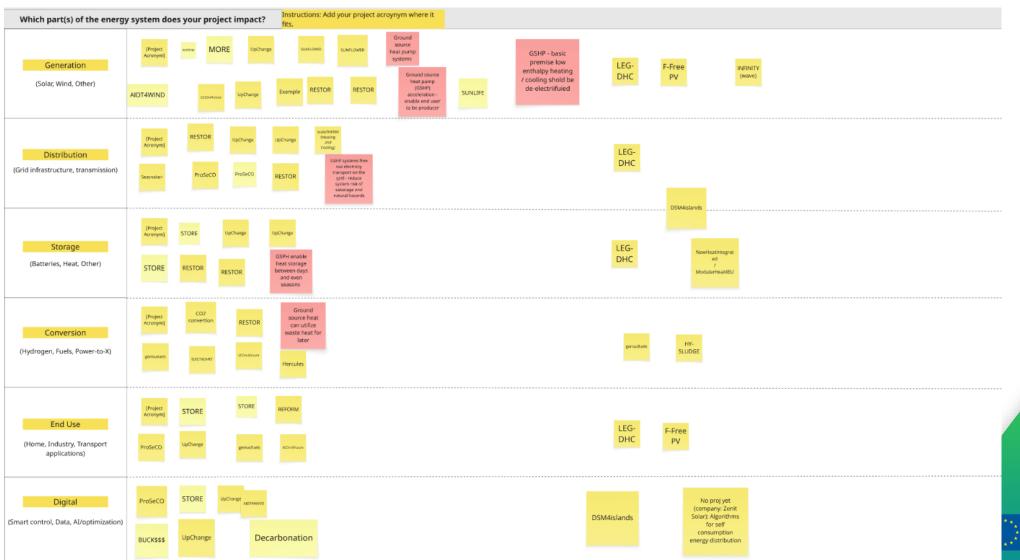
# Miro Work

Knowledge Community interactive session – Peer Learning for System Transition Challenges





# Which part(s) of the energy system does your project impact? – Miro Work







### What I've learned so far?

#### WHAT I'VE LEARNED SO FAR?

#### Instructions: Add your answer where it fits; multiple answers can be given

TRL 3-4: "From lab/pilot testing: functionality integrated and tested on bench/simulators, not yet in realistic settings." small technologies problems might take a lot longer time than planned! (MORE)

Learning gap between architect and next generatio PV devices. More projects and education needed (REFORM)

when staff

ends, it costs a

lot of resource

when new

people starts

New regulations

may significantly

affect the

development of

activities

difficultly to scale up and the operation in real environment. Also more funding is necessary to complete the project succesfull (SUNUFE) scaleTHERM (submitted) Implementation of a novel idea

in action.

communication between industries and academia can sometimes be hard (Seasnake+) UpChange - lowTRI goal is maybe tested in the sandbox, but the goal itself must be realistic nevertheless

> More time needed. It would be much better if projects were planned for 4 years instead of three. (RESTOR)

Maybe at least, a funding-neutral time extension would be an option (as possible in Gentrals PID funding) geniusfuels

how trying to integrate flows impacts on the chemistry of the process DSM4islands: Assessing potential/need through modelling F-Free V = Lab validation and some orientation trials on the final application

TRL 5-6: "From demo preparation: representative prototype tested with real systems/conditions, gearing up for first field trials." OrkaShield, starting later this year, demo TRL 6 ProSeCO 3-5 (6) Merbrane technology development is quite challenging Hercules 3-5

LEG-DHC: optimize our implementation process and develop recommendations for standardised installation procedures

HY-SLUDGE will demonstrate a circular studge-to-e methanol value chain that converts studge to syngas (Hy-CO) via thermochemical gasification, integrates biochar-based CO, copture and catalytic CO, hydrogenation, and delivers carbon-neutral e methanol.

[SUNFLOWER]

Generally very good cooperation

between all partners

Good progress in key tasks

Difficulties with financing at national

level are causing delays in the project

- The challenge is to generate and

evaluate sufficient experimental data by

the end of the project

INFINITY preparing n

When preparing protoype testing: Realize importance of de-risking parts, so that problem in one place does not jeopardize objectives in other parts

INFINITY: Important to establish sufficiently detailed specifications/require ments for interfaces between project parts Geniusfuels we will develop a gasification integrated with eelctrolysis to produce syngas and then methanol and DME

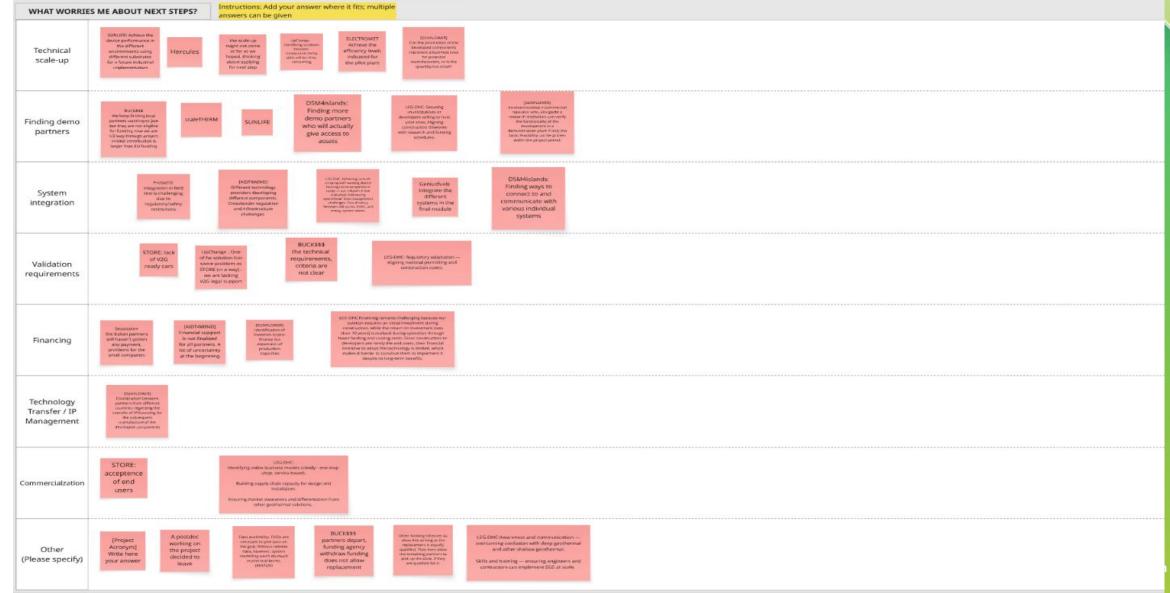
TRL 6+: "From demonstration: running in the real environment, meeting requirements and ready to scale." Buck\$\$\$, cooperation with demo site on capacity and schedule is important

UpChange -Understanding each involved party motivations (definition of benefits) is the key

GSPH is a mature tech, but can be improved, digitized and basic knowledge must be shared to big/small decision makers. For society the longlivety is important LEG-DHC:we learned how to coordinate more effectively with other actors in construction projects, improving planning, communication, and on-site integration to ensure successful installation. We're also expecting valuable feedback and performance data from the instrumented pilot projects to further refine our approach



## What worries me about next steps?

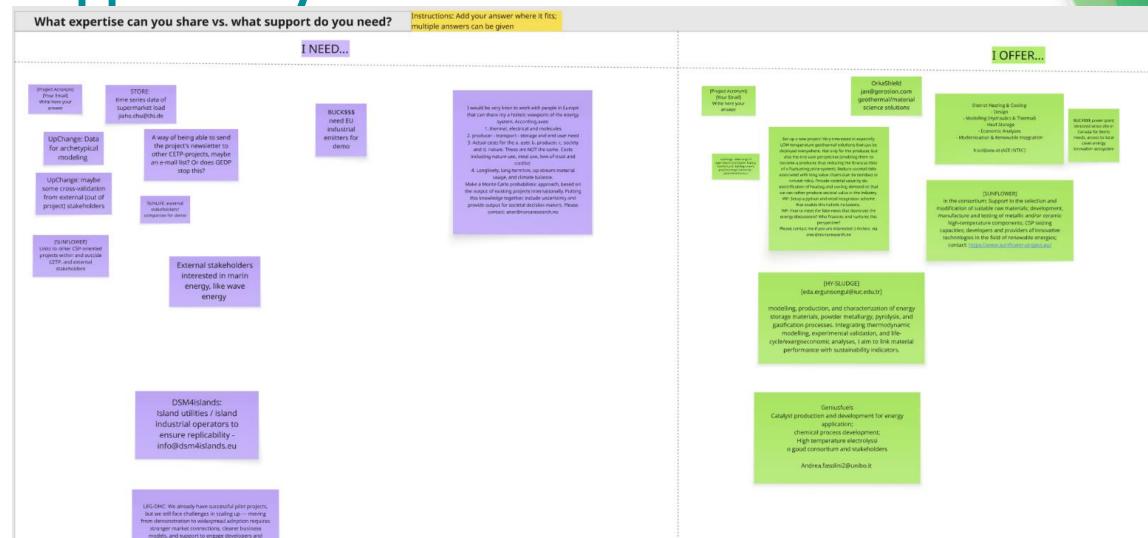




# What expertise can you share vs. What support do you need?

decision-makers at earlier project stages Roxana Vasilescu: rvasilescu@pintogc.com







# Miro Work

Impact interactive session - Investor Readiness for Demonstration and Upscaling





# Stage 1. Where are you now – and where are you headed?

Who Will Own This — and Guide It Toward Demonstration?

(Understanding IP ownership and your TRL ambition is the foundation for planning your demonstration.)

IP Ownership & Technology Transfer	TRL 1	TRL 2	TRL 3	TRL 4	TRL 5	TRL 6	TRL 7	TRL 8	TRL 9
<b>0. A company already owns the IP</b> No tech transfer is necessary, the team is ready to move on towards commercialization.				UpChange (for digital solutions	Loan had thend encypticips (INTO No. 1997) and INTO No. (INTO NO. 1997) and INTO NO. (INTO NO. 1997) (INTO NO. 199	company S owned, at	Energy- overnance related orithms (no opect in CETP yet)		
1. No plan or decision yet (researchowned innovation) We don't know how or if the technology will be transferred.			t d	Orks  Charger to some ProSeCO	sShield geniusfuels				
2. Considering licensing to external partner We aim to license the technology but haven't started discussions.			New Idaa]proj Reuse materials	В	harrowerd.				
<b>3. Considering spin-off creation</b> We are exploring a spin-off route, but no team or structure in place yet			we have a discussion within the consortium who will own one working our maybe a new returned? (MORE)	Example: HYDRO-X TRL 4-5					
4. In active discussions with company or spin-off team We are negotiating licensing or spin-off terms with a specific party.				UpCharge, flor one value or, we have a good practice with our DSOI					
<b>5. License signed I spin-off founded</b> The IP has been licensed or a spin-off has been formally launched.									
6. Other technology transfer route — what?					islands AloT4WIND 13-6 TRL 5-7		EG- HC		

# Stage 1. Where are you now – and where are you headed?



#### 1. What kind of an innovation is this?

#### **Examples:**

A product or device

A software or tool

A new material or process

A full solution or service

We're still figuring it out



#### 2. Who might use this?

#### Examples:

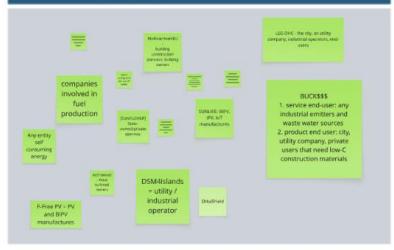
A city or utility company

A factory or industrial operator

A solar panel manufacturer

A logistics company

We don't know yet



#### 3. Why would they want it?

#### Examples:

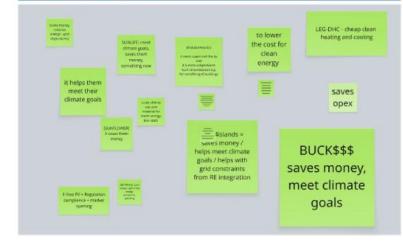
It saves them money

It helps them meet climate goals

It solves a tricky problem

It lets them do something new

We haven't thought about this yet







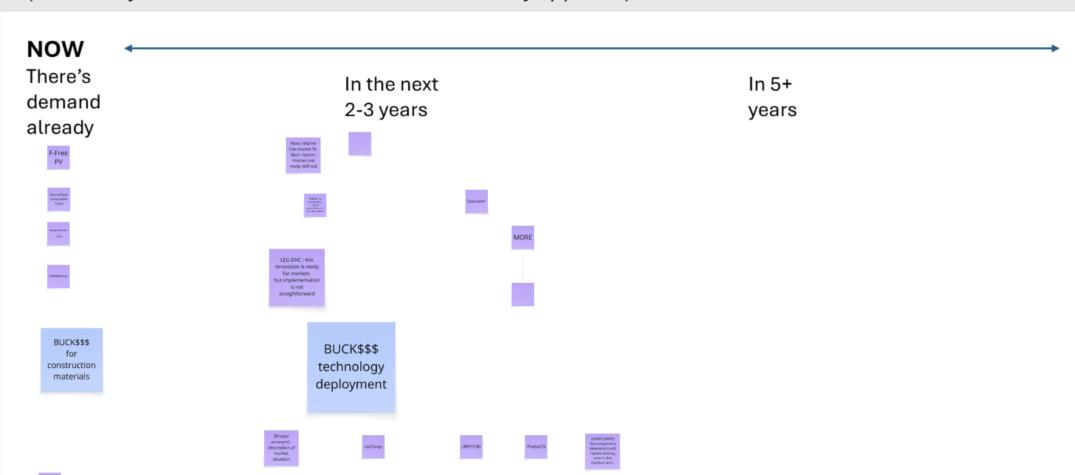
LATER

No idea yet

# Stage 1. Is this innovation relevant for markets now – or later?

4. Is this innovation relevant for markets now - or later?

(When do you think the need or demand will really appear?)





Stage 2. What kind of Demostration are you planning?

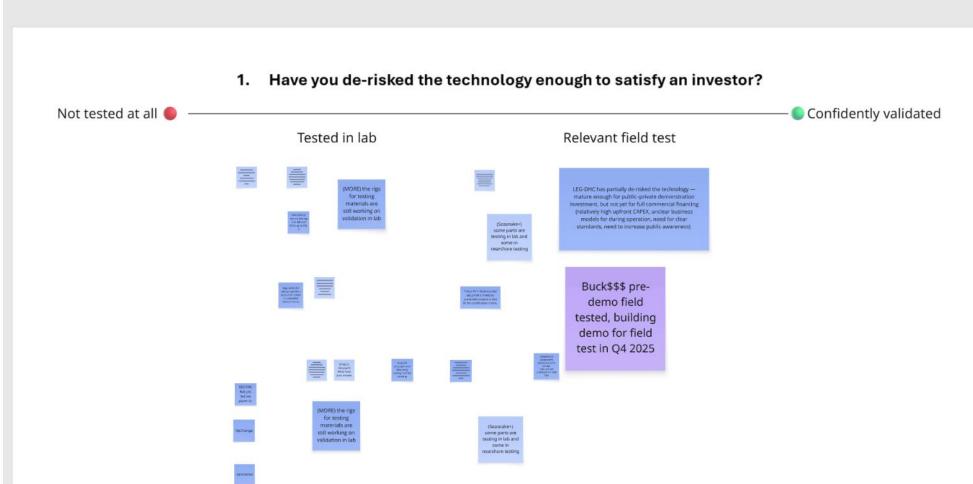






STAGE 3: "Can You Convince an Investor?"

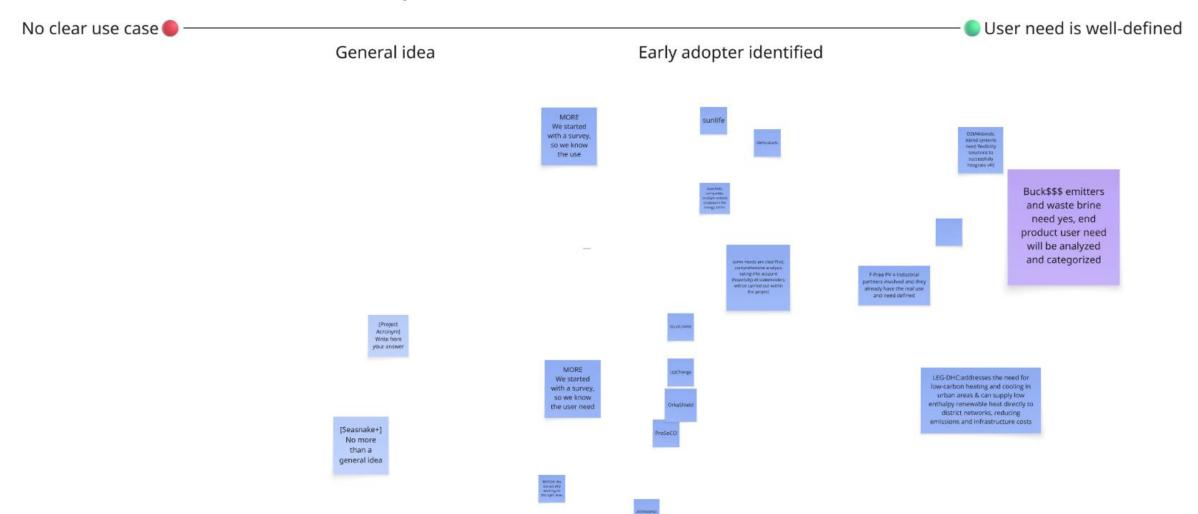
Let's check how far your team is in reducing risk and proving relevance.





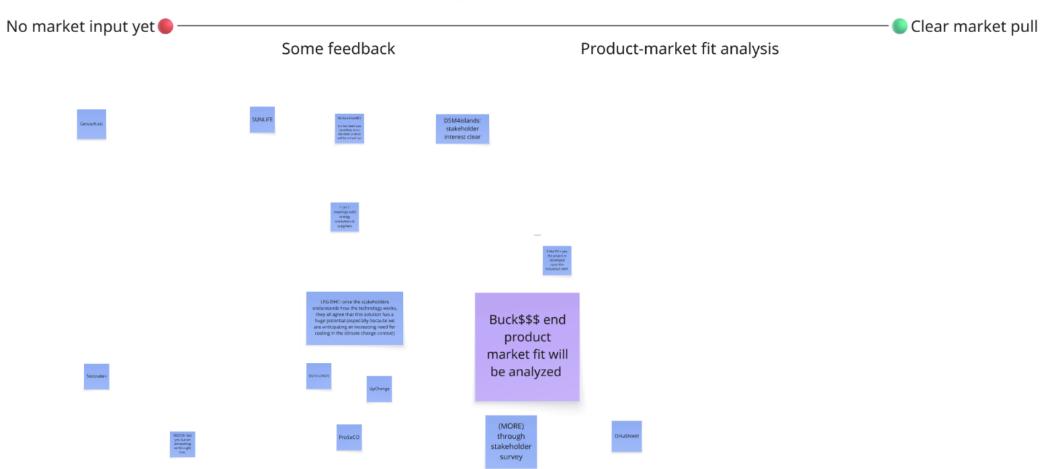


2. Do you understand the use case and real user need?



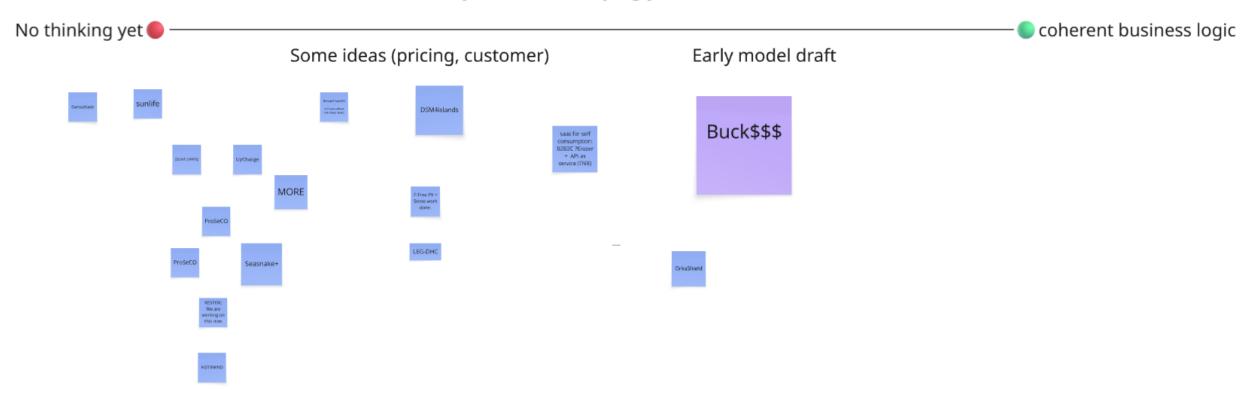


3. Have you tested market interest?

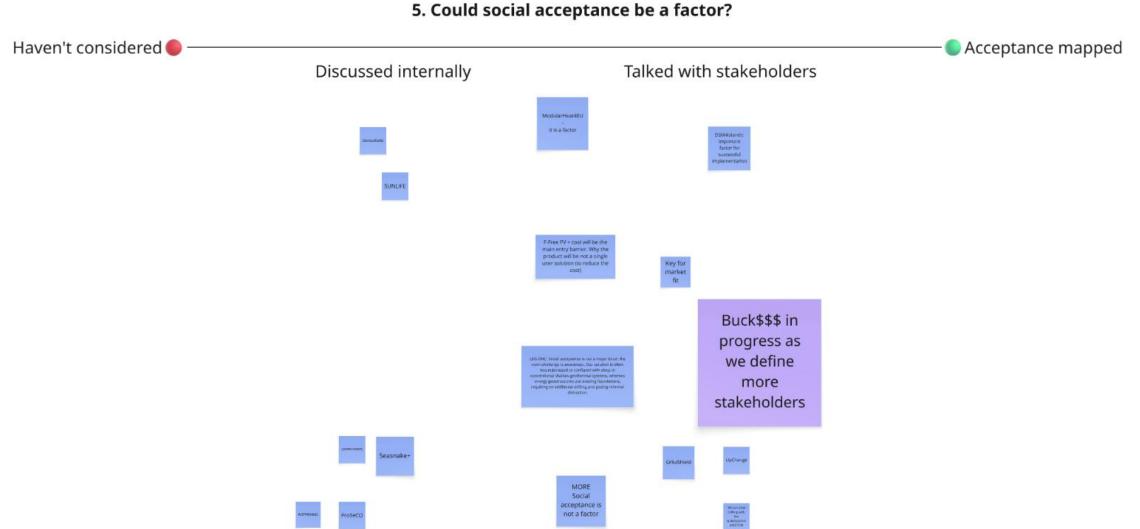




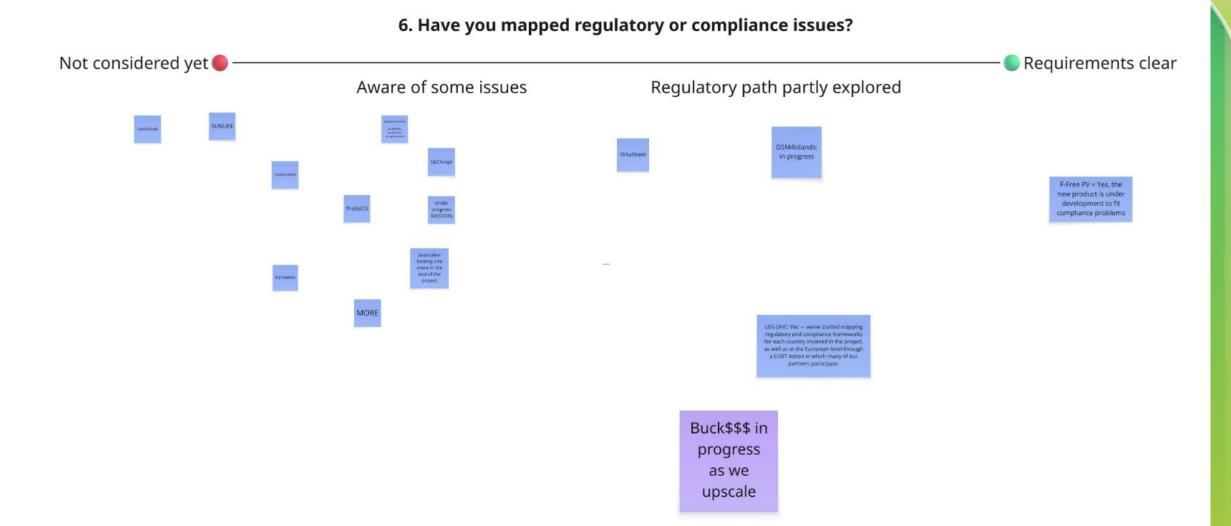
#### 4. Have you started shaping your business model?





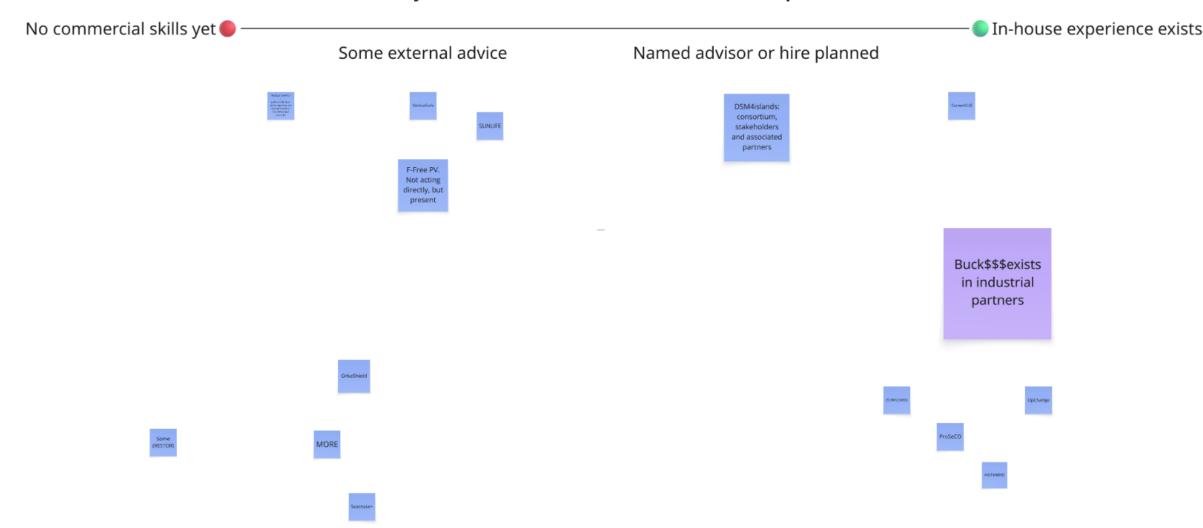








7. Does your team include market or commercial expertise?





# Wrap-up in plenary

SLIDO





# How can the Knowledge Community and Impact teams better support your work? - SLIDO



<b>(</b>	How can the Knowled Wordcloud Poll		and Impact to	eams better	support your work?
		hosting platform	ar	nalysis	Exchange
	Societal value		specifically	requirement	hosting
	facing initiate	possible c	collaborator		free
	cosupervised	Purpose project op	market student no	students etwork joi	key I'm
	Ideally	guide pa	rtners plan	n assist	countries



### What's next?

- Documentation of presentations and discussions will be shared in coming days.
- Answers to any remaining questions will be included in the documentation.
- A short survey link about the Annual Conference will also be sent along the documentation.
- We look forward to your valuable feedback to help us improve future events





### **Upcoming Events**

• Knowledge Community Working Group Meeting: System Integration in the Energy Sector – 18th November (13:00 – 16:00). Register <a href="here">here</a>

#### Save the dates:

- Training webinar on **Demonstration & Investor Readiness** on 27 November at 13:00 14:30. Registration opens next week.
- Investor Sparring Session on 13 January 14:00 16:00 for interested projects.
   Invitation round opens in November.





## **Knowledge Community Contact Points**

• Please contact us on knowledgecommunity@cetpartnership.eu



**Andreas Corusa** 



**Katharina Reffel** 



Tanja Suni



**Marcel Gutschner** 





# Final reflections & future outlook



**Michael Huebner**CETPartnership Coordinator





### **SET Plan Conference 2025 Side Event**

#### When?

<u>4</u>-5 November 2025, 16.00 – 17.00

#### Where?

Odense, Denmark

#### What?

Side Event, during Day 1 organised by CETPartnership and the DUT Partnership, followed by Signing ceremony of Letter of Intent with Mission Innovation

Register here <a href="https://www.setplan2025.dk/">https://www.setplan2025.dk/</a>

Strengthening European and International Collaboration in Research

 Impact and value of strategic collaboration in Europe and beyond to accelerate the clean energy transition

#### **Participants:**

- Beatrice Coda, European Commission, Directorate-General for Research and Innovation - (RTD.C.2)
- Eleanor Webster, Head of Mission Innovation Secretariat and member of the CETPartnership Strategic Advisory Board
- Andrew Barney, Uppsala University, Sweden CETPartnership project RESTOR
- TBC
- Moderator: Wickie Lassen Agdal Danish Energy Agency, Denmark, CETPartnership Governing Board Member



# Thanks!

Visit us at cetpartnership.eu

