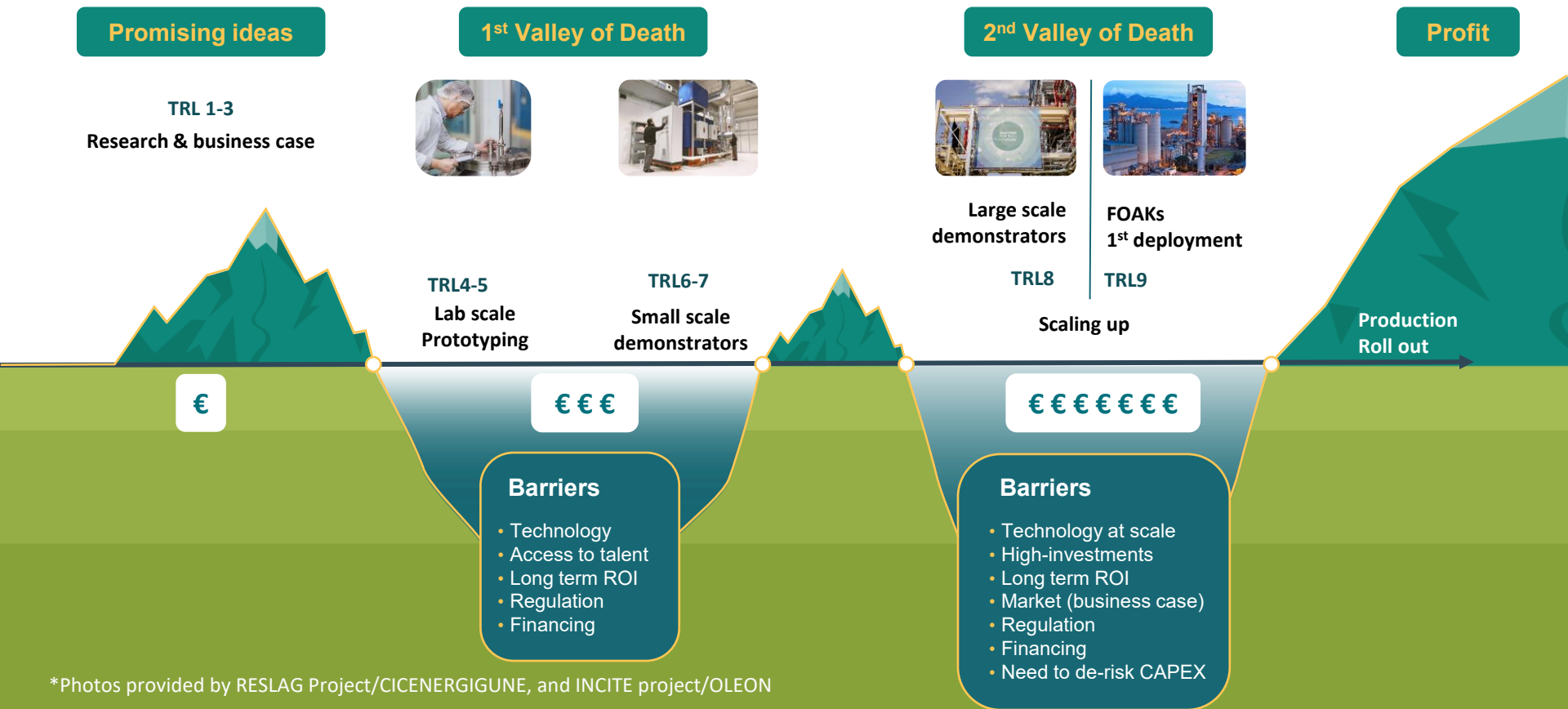


Bridging Process Industries Innovation Towards Deployment

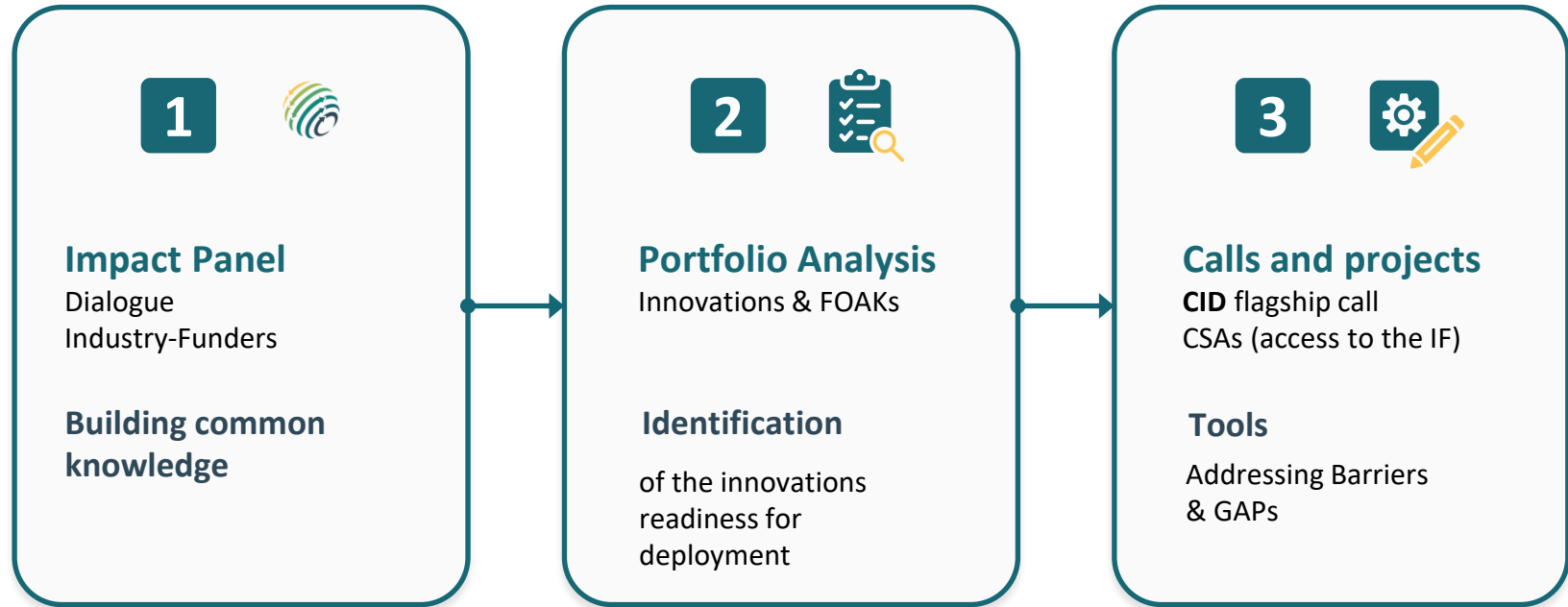
The way is long...

...process manufacturing innovations can take from 10 to 20 years...



Bringing innovations to deployment requires specific support...

...P4Planet has focused on identifying barriers, gaps, needed tools...

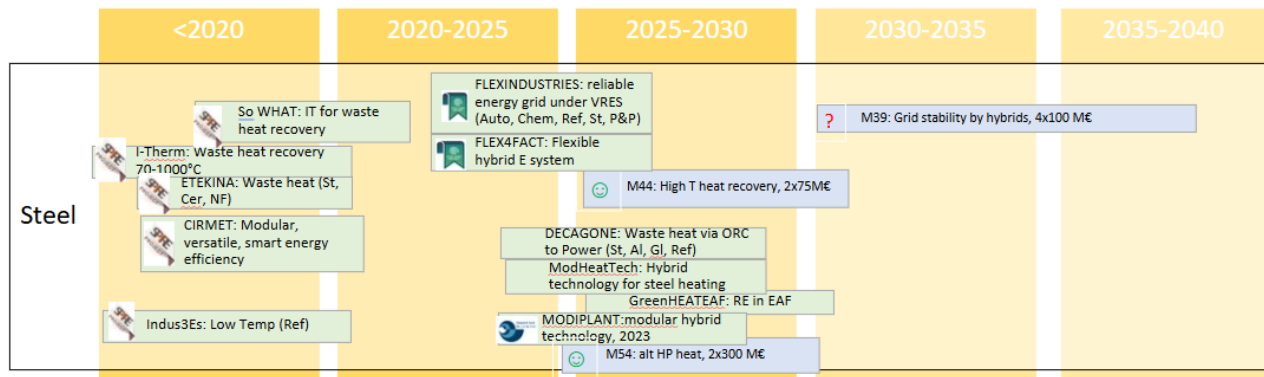


...to identify and monitor innovations readiness for future FOAKs...

**93 potential FOAKs in the SRIA
+300 innovations identified**

- Classified into 14 domains and EIs sectors
- Multiple funding sources (SPIRE, P4Planet, Private Investment...)

- Energy efficiency
- Electrification
- Alternative energy sources
- Process intensification
- CCU
- CCS
- CCUS-Capture
- H2 Use/Production
- Circular economy
- WEE
- Water
- Digital
- H4C
- Alternative material concepts

ENERGY EFFICIENCY

Example: FOAKs in Energy Efficiency - Steel

- P4Planet Projects
- SPIRE Projects
- Other projects
- Marbles - Good progress
- Marbles - In question



... and a trend in the right direction to be strengthened in FP10

Portfolio analysis conclusions

- TRL7 innovations blocked to reach the 1st deployment level
- Support GAP: HEU innovations not ready for the Innovation Fund
- Uneven sectors' progress in scaling up innovations
- Not all needed innovations for the transition fit in the IF

A win-win with the CID Flagship Call

- Support for demonstrators till TRL8
- Industry led innovations, with research orgs. support
- Small and focused consortia
- 70% funding for all partners
- Most project budget for the innovation
- Bridge between HE and the IF

The need for innovative funding schemes in FP10

- 60% CAPEX support for TRL8 demonstrators
- Fast tracking schemes for scaling up towards deployment
- Flexible funding distribution for SMEs innovation
- Higher funding rates for SMEs
- Streamline access to EU and national support to accelerate the scaling of solutions for competitiveness

LEADS Project

CREATING AND MANAGING A PIPELINE OF H2O2
PROJECTS FOR THE INNOVATION FUND ON CCUS



INNOVATION FUND EXPERT
CONSULTANTS



D&C - H2O2 PORTFOLIO
MANAGEMENT

novis

PROJECT OWNER

TNO

PROJECT OWNER



PROJECT OWNER

AdMiRIS

GHG EMISSIONS
CALCULATION EXPERT



EU CLUSTERS – CCUS
TECHNOLOGY PROMOTER



LEADS



LEADS - Project Summary



Call: HORIZON-CL5-2023-D2-01



Topic: HORIZON-CL5-2023-D2-01-07
Support for the deployment of R&I results for climate mitigation. Synergies with the ETS Innovation Fund



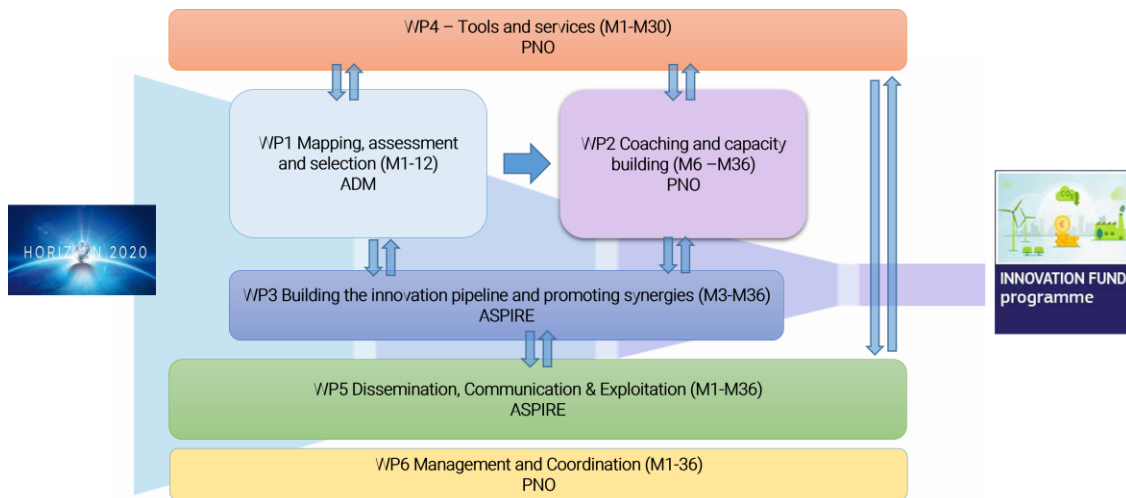
Type of Action: Coordination and Support Action (CSA)



Start date and duration: 1 January 2024
- 31 December 2026 (36 months)



Partners



LEADS – objectives

Create a pipeline of H2020/HEU projects to apply to IF

Assess and select most suitable projects

Build capacity, supporting CCUS project owners to overcome residual bottlenecks, prepare for IF investment decision and enable them to apply to IF

Foster synergies between H2020 and IF, as well as other EU funding programmes.

Create and make available to stakeholders a set of IF tools and materials to support them in various forms

Reach a sound impact of performed activities by involving relevant CCUS stakeholders to increase the "deal-flow" from H2020 to IF.

Unlock the full carbon reduction potential of H2020 R&D results

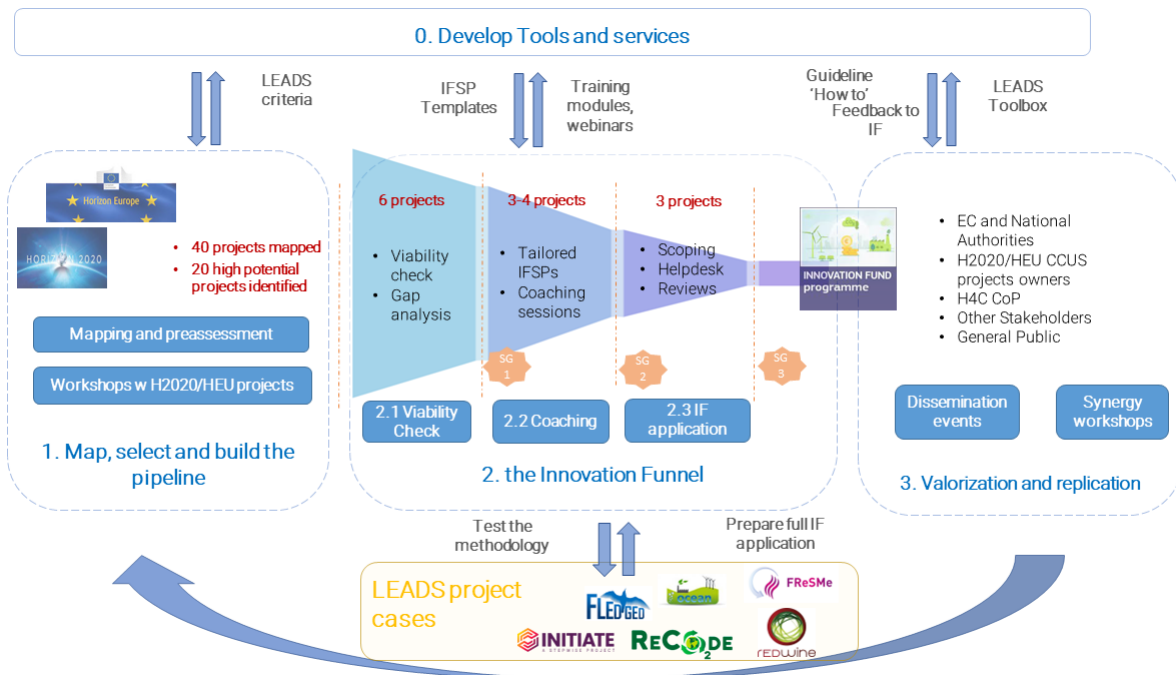
LEADS – Innovation Funnel Approach

Organisations involved in **CCUS** activities **can be selected to be part of the Pipeline**

A **preliminary assessment** will be carried out to select the project

A **Viability Check** and a **GAP analysis** with the project owners will be carried out to explore the project details

Coaching and **training** sessions for IF application preparation



Tips and Tricks for Innovation Fund Proposal

Writing a **successful Innovation Fund proposal** is highly competitive and requires a careful balance of technical excellence, financial clarity, and strong alignment with EU climate goals. Make sure you have a large and multidisciplinary team to cover all the required aspects.

Clear, Credible and Compelling

Describe your project and main objectives using clear, simple language. Focus on **demonstrable and measurable claims** that align with key EU priorities. Ensure all statements are supported by data or evidence and framed within the context of EU climate and industrial policy.



Clear Roadmap and Timeline



Demonstrate the project's maturity through a comprehensive roadmap and detailed timeline, clearly **highlighting key milestones** achieved prior to the project's start (e.g., submission or approval of the Environmental Impact Assessment, completion of pre-FEED studies). Provide specific dates and statuses for critical development stages, including Final Investment Decision (FID), Front-End Engineering Design (FEED), procurement, construction, commissioning, and commercial operations (e.g., sales or service launch).

Clear and Competitive Cost Structure

Clearly split costs by category (CAPEX/OPEX), activity, and innovation. Justify **cost-efficiency with benchmarks** (€/tCO₂ avoided vs similar IF projects). Present a **financial model** including NPV/IRR, payback, and **comparing your business case with/without IF support**. Demonstrate financial capacity to cover investments complementary to the IF grant (equity and/or debt).



Innovation Fund Guidelines



The 2DPLOY project



2DPLOY has set four main objectives

- Objective 1: **Establish a continuous innovation pipeline** for low-carbon technologies within EIs
- Objective 2: **Develop best practices and support pilot IF proposals**
- Objective 3: **Feed 2DPLOY innovation pipeline & share learnings** with priority stakeholders
- Objective 4: **Fostering open collaboration and creating synergies**

Partners in 2DPLOY



A.SPIRE



CEINNMAT



EVONIK



OLEON GmbH



OLEON NV



RINA

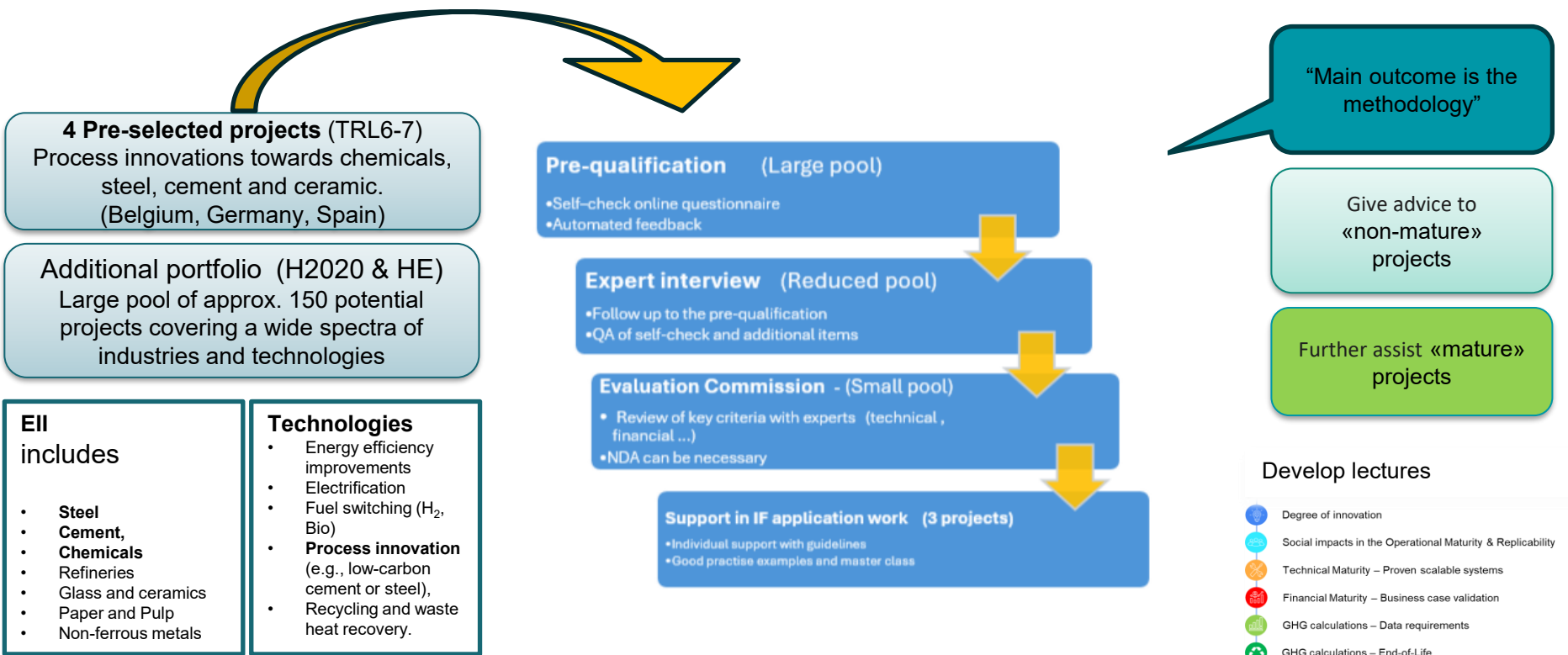


SINTEF



VITO - The Flemish
institute for
technological
research

Innovation Pipeline and selection of projects



Tools and main lessons learnt on barriers to access the Innovation Fund



FOCUS: 2DPLOY
Low carbon technologies of EITs

- Supporting the “innovation pipeline” from H2020/HE to the Innovation Fund
- Advanced master classes around IF criteria (technical maturity, financial maturity, GHG calculations, social impact, degree of innovation...)
- Financial maturity is considered by applicants one of the most challenging requirements.



FOCUS: LEADS
CCUS innovations

- Guidelines tailored to CCUS needs: permitting, CO2 transport & storage agreements, technical/financial maturity, and GHG calculations for IF proposals.
- Insufficient technical/financial maturity, slow permitting and regulatory uncertainties preventing full value-chain readiness for the IF
- Public Report on Lessons Learnt for IF (expected on 30 September 2026)

Thank you!



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PROCESSES4PLANET