# A.SPIRE INDUSTRIAL INNOVATION DAYS 2026

## *Climate innovations Brokerage & Marketplace: Connecting opportunities*

**22 October 2026**



# Agenda

## 22 October:

### In the Morning:

**CLIMATE INNOVATION BROKERAGE & MARKETPLACE:**
***CONNECTING OPPORTUNITIES***

- **09:00** Registration and welcome coffee
- **09:30** Welcome and opening
- **9:40** Processes4Planet 2027 topics in Horizon Europe/CID call
- **10:10** Pitches for project proposals, innovations and challenges
- **11:00** Coffee break
- **11:30** Networking tables

### In the Afternoon:

**FROM RESULTS TO SCALING UP:**
***CONNECTING IMPACT***

- **13:00** Networking lunch
- **14:00** Processes4Planet projects results: Workshops
- **15:40** Networking coffee: Projects' poster session
- **17:40** Wrap up and closure
- **18:00** Networking cocktail

**Wi-Fi Network:**
**Welcome2alberthall**

**Password:**
**Open**

9:40

# Processes4Planet 2027 topics in Horizon Europe/CID call

**Jean-Philippe Guisset,** HaDEA.B3-Industry

**Richard Heyn**, A.SPIRE APG Vice-Chair for Circularity & Materials (SINTEF)



# Three funding opportunities for industrial transformation

2027 opportunities • Innovation Actions (IA) • Different industrial challenges and project expectations

| Topic and identifier | Industrial challenge | Innovation focus | Partnerships | Submission deadline |
|---|---|---|---|---|
| **Renewable energy and energy management**<br>**HORIZON-CL4-2027-02-MAT-PROD-32-two-stage** | Industrial energy systems | Renewable process heat, storage and energy management | Processes4Planet<br>IAM4EU | 2 Feb 2027<br>Stage 1<br>2 Sep 2027<br>Stage 2 |
| **Advanced materials and raw materials**<br>**HORIZON-CL4-2027-01-MAT-PROD-22** | Raw-material dependencies | Substitution, material efficiency and new production processes | IAM4EU<br>Processes4Planet | 2 Feb 2027<br>Single-stage |
| **Clean Industrial Deal**<br>**HORIZON-CID-2027-01-01** | Industrial decarbonisation and deployment | Integrated carbon-cycle, clean-energy or circularity solutions | Processes4Planet<br>Clean Steel | 15 Sep 2027<br>Single-stage |

IAM4EU = Innovative Advanced Materials for the EU. Deadline source caveat and submission checks: final section slide.

# Renewable energy and energy management

HORIZON-CL4-2027-02-MAT-PROD-32-two-stage • Processes4Planet and IAM4EU • Deadline: 2 February 2027 • TRL 4/5-6/7

## At least 20%

lower process $CO_2$ footprint through technological innovation

**Renewable electricity / heat** → **Electrified or hybrid heat supply** → **Industrial process**

**Novel energy storage**

Preheating processes can utilize fossil-free energy sources such as solar heat, geothermal heat, heat pumps, resistive or induction heating, and electric boilers.

**Energy management connects supply, storage and process demand**

Improve efficiency and heat integration. Address variable renewable supply, electricity availability and affordability.

**Explicit exclusion: production scheduling alone to match renewable electricity supply, without the required technological innovation.**



# Renewable energy and energy management: Project design

HORIZON-CL4-2027-02-MAT-PROD-32-two-stage • Stage 1: 2 February 2027 • Stage 2: 2 September 2027

## 100–500°C: low- and medium-temperature heat

Solutions for low/medium temperature energy inputs in energy intensive industries including hybrid solutions and a progressive reduction of the use of fossil carriers of energy

**OR (?)**

## Above 500°C: high-temperature heat

Solutions for high temperature energy inputs in energy intensive industries, including high temperature electricity driven processes, and high temperature energy storage.

## Topic expectations

Pilot-scale demonstration, preferably in a real plant

Quantified emissions reduction and a recommended greenhouse-gas avoidance methodology

Business case, exploitation and scalable deployment

## Illustrative project ideas, not requirements

Chemical plant: electric steam supply plus novel thermal storage to maintain reliable process heat.

Ceramics line: hybrid electric heating and heat-recovery materials to cut high-temperature energy demand.

**Relevance depends on demonstrable innovation, system-level emissions savings and the complete topic scope.**

# Advanced materials and raw materials

HORIZON-CL4-2027-01-MAT-PROD-22 • IAM4EU and Processes4Planet • Deadline: 2 February 2027 • TRL 5-7

## A more resilient industrial supply chain through substitution and more efficient material use

### Substitute

Design, develop and produce innovative advanced materials (IAMs) that replace critical or strategic raw materials.

**and/or**

### Use less

Develop industrial processes that reduce material consumption while improving process performance.

**and/or**

### Integrate

Bring the new material into an industrial product and its manufacturing process.

### Relevant strategic sectors

Energy, mobility, construction, electronics, medical devices and chemicals

**Proposals should show industrial use cases, market potential and how they will overcome barriers to substitution.**

Source: cordis.europa.eu/programme/id/HORIZON_HORIZON-CL4-2027-01-MAT-PROD-22

# Advanced materials and raw materials: Industrial adoption

HORIZON-CL4-2027-01-MAT-PROD-22 • Industrial integration across the innovation cycle

| Material design | Process development | Product integration | Validation | Market uptake |
|---|---|---|---|---|
| Function and substitution | Co-develop material and production route | Adapt existing manufacturing lines | Performance, safety, scale and cost | Demand, business case and exploitation |

**Safe and Sustainable by Design (SSbD) throughout the innovation process**

## What the topic asks applicants to address

Performance, safety, sustainability, scalability and cost-efficiency. Cooperation with relevant EU innovation and substitution initiatives where appropriate.

## Practical proposal advice

Show customer demand and value-chain uptake. Identify who adapts the production line, validates the product and leads exploitation.

# Clean Industrial Deal: Three decarbonisation routes

HORIZON-CID-2027-01-01 • Innovation Action, up to technology readiness level (TRL) 8 • Processes4Planet and Clean Steel

## 1 Managing the carbon cycle

$CO_2$ / CO capture, utilisation or storage

Optimise and demonstrate solutions

Commercial potential and life-cycle impacts of decarbonised products

**30% less capture energy per tonne of $CO_2$ / CO: target relative to available technologies***

## 2 Clean energy in production

Process electrification and clean energy carriers, including hydrogen

On-site renewable energy storage

Waste-heat utilisation and upgrading

**Major improvements in clean energy use towards 2035**

## 3 Circularity and efficiency

More efficient use of materials, energy and water

Side-streams and end-of-use waste as feedstocks

Positive overall life-cycle assessment and commercial viability

**30% improvement ambition by 2035 against current industrial values**

**Select one main technology area. Combine areas where an integrated approach is justified.**

*With relevant capture rate and purity. CCU: carbon capture and utilisation. CCUS adds storage. CO: carbon monoxide.

# Clean Industrial Deal: From innovation to deployment

HORIZON-CID-2027-01-01 • Up to TRL 8 • Deadline: 15 September 2027

## Industrial ownership

Integrated decarbonisation solution

Industrial leadership and a justified, manageable consortium

SME participation encouraged

## Commercial readiness

Convincing business plan and market-readiness strategy

Deployment barriers addressed before 2030

Named industrial deployment lead(s)

## Beyond the project

Credible route to industrial deployment

Relevant engineering and techno-economic work

Permits and a viable exploitation pathway

## Evidence required before the go/no-go decision

Detailed engineering plans and techno-economic assessment

Necessary demonstrator permits

Complete business plan and market-readiness strategy

**GO / NO-GO**

**Before contracting and demonstration**

**Technology integration, credible deployment ownership and commercial viability distinguish this opportunity.**

# Which topic fits your industrial challenge?

Match the principal challenge and expected results, not only the technology label

| Best-fit route | Principal industrial challenge | Illustrative idea, not officially endorsed | Why it may fit |
|---|---|---|---|
| **Renewable energy and energy management** | Renewable heat, energy storage, energy efficiency or energy-flow management | A chemical plant couples electric steam with novel thermal storage. | Energy-system innovation |
| **Advanced materials and raw materials** | Replace or reduce critical / strategic raw materials through advanced materials and processes | An equipment maker develops a substitute catalyst and adapts its production process. | Reduced raw-material dependency |
| **Clean Industrial Deal** | Integrated, commercially viable decarbonisation through carbon-cycle, clean-energy or circularity solutions | A cement producer integrates carbon capture with a utilisation route and a deployment plan. | Integrated decarbonisation and uptake |

**Renewable energy and energy management / Advanced materials and raw materials: Processes4Planet and IAM4EU**

**Clean Industrial Deal: Processes4Planet and Clean Steel**

Advanced materials can enable several pathways. Scope and expected outcomes determine fit. Decarbonisation alone does not establish eligibility.

# Deadlines and proposal-readiness checklist

Four submission milestones • Renewable energy and energy management has two stages

## 2 February 2027

Advanced materials and raw materials: single-stage

Renewable energy and energy management: first stage

HORIZON-CL4-2027-01-MAT-PROD-22

## 2 September 2027

Renewable energy and energy management: second stage

Subject to invitation and rules

HORIZON-CL4-2027-02-MAT-PROD-32-two-stage

## 15 September 2027

Clean Industrial Deal: single-stage

HORIZON-CID-2027-01-01

## Proposal-readiness questions

Is the industrial challenge clearly defined?

Does the idea address the topic’s outcomes and scope?

Is the technological advantage measurable?

Is a pilot, site or deployment partner needed?

Are the consortium, value chain and expertise appropriate?

Are scale-up, safety, sustainability, commercial viability and exploitation addressed?

Can the team meet the applicable deadline?

**Start from the industrial challenge and the required impact, then choose the call that best matches the proposed solution.**

10:10

# Pitches for project proposals, innovations and challenges

**Moderator: Edoardo Paganelli**, Projects and Development Associate, A.SPIRE

**Pitches: P4Planet Brokerage and Climate Innovations Marketplace (supported by the 2DPLOY Project)**



# Brokerage & Marketplace: How It Works

## 1 min 30 seconds

**per pitch**

Present your idea, industrial need or solution.
State the collaboration or partners sought.

**ROUND 1: BROKERAGE**

**11:30–12:00**

Tables A–P

**ROUND 2: BROKERAGE**

**12:00–12:30**

Tables A–P

**ROUND 3**

**12:30–13:00**

Marketplace A–F
Brokerage G–L

› **Same letters, same setup.** Tables A–P keep their assignments in Rounds 1 & 2.
› Use the table letters to find the relevant pitch in both rounds.

› **Transferred pitches.** Some P4Planet Brokerage pitches move to the Round 3 Marketplace.
› Look for the green-highlighted entries in the pitch tables.

› **Make connections.** Exchange ideas and find partners
› and follow up on relevant collaborations.

# Round 1 and Round 2 | P4Planet Brokerage

## ➢ 11h30 – 12h00 & 12h00 - 12h30



| Table | Pitch title | Pitch contributor |
|---|---|---|
| A | Pitch A: Research Center Pharmaceutical Engineering GmbH - Sustainability and circularity in pharma | **Sulaiman Mohsenzada** |
| B | Pitch B: Industrial Association and Technology Center as coordinator/partner | **Onur Dedeoğlu** |
| C | Pitch C: Defossilisation of the industrial park Höchst // CCUS | **Provadis Hochschule** |
| D (H-J) | Pitch D: İMMİB – Access to 85,000+ Companies for Validation, Use Cases & Market Uptake | **Banu ALTIN / Zeki Uyan** |
| E | Pitch E: Brisa: Industrial Partner for Sustainable and Smart Manufacturing | **VAHİT YAZICI** |
| F | Pitch F: Reducing Mineral Tailings Through Circular Valorisation and Industrial Symbiosis | **Tazrin Ahmed** |
| G | Pitch G: From Project Results to Investable Innovations: C-Tech®-driven Exploitation for P4Planet 2027 | **Andrea Jester** |
| I | Pitch I: Industrial transition to climate neutrality | **Robert Hartmann** |
| K | Pitch K: Towards fully decarbonised production lines in two energy-intensive industries | **Marta Rabal** |
| L | Pitch L: MAGUP project | **Cécile GIRARDOT** |
| M | Pitch M: Electrification and decarbonization of catalyst based chemical value chain | **Savitha Thayumanasundaram** |
| N | Pitch N: HTL4CID | **Stelios Bikos** |
| O | Pitch O: Advanced high temperature heat pumps for sustainable heat upgrading in industrial processes – Project Collaboration | **João Cardoso** |
| P | Pitch P: Proving your demonstrator works in a real plant | **Raquel Almeida** |

# Round 3 | Climate Innovations Marketplace

## 12h30 – 13h00

Green rows: transferred P4Planet pitches

| Table | Pitch title | Pitch contributor |
|---|---|---|
| A | Pitch A: Electrification of Industrial Heat by Novel Plasma Torch | **Halvor Dalaker** |
| B | Pitch B: Innovative idea creation for Horizon Europe calls HORIZON-CL4-2027-01-MAT-PROD-22: Innovative advanced materials and new production processes | **Kemal Serkan Ekbiç** |
| C | Pitch C: High performance catalysts for sustainable fuels and chemicals | **Judy El Jablaoui** |
| D | Pitch D: Turning Wastewater Treatment Plants into Urban Circular Biorefineries | **Daniele Basso** |
| E | Pitch E: Optimized 3D printing of large HDPE components | **Tazrin Ahmed** |
| F | Pitch F: Reliable Carbon Electrodes for Metal Production | **Tazrin Ahmed** |
| G | Pitch G: Malta AHP: World's 1st ultra-HTHP to electrify Process Heat @250–550°C with COP 2-6 | **Alvaro Mozo** |
| H | Pitch H: Low-carbon magnesium-based binders for sustainable construction | **Charlotte Dewitte** |
| I | Pitch I: Circular Plastics: From Innovation to Industrial Scale | **Chantal Jörissen** |
| J | Pitch J: Digital Twin, AI & Industrial Data Solutions for Energy-Efficient, Low-Carbon and Circular Process Industries | **Perin ÜNAL** |
| K | Pitch K: Integrated decarbonisation of aluminium melting through clean energy and Circularity | **Simona Pace** |
| L | Pitch L: De-risking $CO_2$-to-e-Fuels: From TRL6 Pilots to Industrial Go/No-Go | **Eduard Piqueras Jover** |

11:00

# Coffee break

Connect and join the conversation:

@A.SPIRE

@Processes4Planet Partnership



11:30

# Brokerage & Marketplace tables

- Round 1: 11h30 – 12h00
- Round 2: 12h00 – 12h30
- Round 3:  12h30 - 13h00



13:00

# Networking lunch

Connect and join the conversation:

@A.SPIRE

@Processes4Planet Partnership



14:00

# Processes4Planet projects results: Parallel Workshops

## *From results to scaling up: Connecting impact*



| P4Planet Projects Results Workshop 1 | P4Planet Projects Results Workshop 2 | P4Planet Projects Results Workshop 5 |
|---|---|---|
| **Modelling industry transition to climate neutrality, circularity and sustainability** | **Low-carbon production of minerals and materials** | **H4Cs: Shaping the Circular Ecosystems of Industrial-Urban Symbiosis** |
| **Projects:**<br>• Amigdala<br>• Transience | **Projects:**<br>• ALCHEMHY<br>• ELECTRA<br>• HYPER<br>• MECALO<br>• PRIM-ROCK | **Projects:**<br>• REDOL<br>• tExtended<br>• THESEUS<br>• United Circles |
| ***Moderator:*** Franz Hörzenberger<br>***Room:*** **Albert Hall** | ***Moderator:*** Carlos Escudero<br>***Room:*** **Roseland** | ***Moderator:*** Christophe Pinck<br>***Room:*** **Lobby Chaplin** |

18:00

# Networking cocktail

**Let’s raise a glass to innovative Process Industries and keep the conversations going!**



## Your voice on events:

Scan the QR code to
complete the event survey!



**Thank you for being part of the A.SPIRE community, advancing Europe's competitiveness, climate neutrality, circularity and strategic autonomy.**