Processes4Planet Partnership

Transforming the European Process Industry for a sustainable & prosperous society

9 June 2021
CEPI MEMBERS MEETING
Co-programmed Partnership in Horizon Europe

New approach to European Partnerships

- Simple architecture and toolbox
- Coherent life-cycle approach
- Strategic orientation

Co-programmed
Based on Memoranda of Understanding / contractual arrangements: implemented independently by the partners and by Horizon Europe

Co-funded
Based on a joint programme agreed and implemented by partners, commitment of partners for financial and in-kind contributions

Institutionalised
Based on long-term dimension and need for high integration; partnerships based on Articles 185 / 187 of TFEU and the ERI Regulation supported by Horizon Europe

Horizon Europe: Preliminary structure

Cluster 4
Digital, Industry and Space

Pillar 1
Sustainable Society

Pillar 2
Global Challenges and European Industrial Competitiveness

Pillar 3
Innovation Union

EU Process
Industry
+
Research
Members,
Universities,
NGOs, Innovation agencies, et al...

DG R&I
DG Grow

€1,3 bn exclusively for projects
27% more than in H2020
Innovation to reach First deployment & deliver Impact

The power of Process Industry Innovation in our SRIA

Unique cross-sectoral community

36 innovation programmes to FILL the GAP
Including Technology and non-Technology Innovation

Ambitions to enable Prosperity for all

First-of-a-kind plants
Hubs for Circularity

Competitive EU process industries

Climate neutrality Net-zero emissions

Circularity: Near zero landfilling and near zero water discharge
Innovation for Sustainable Prosperity

Disruptive new processes: Towards net-zero CO₂ emissions

Energy output
- Heat
- Electricity
- Hydrogen
- Bioenergy

End User

UPCYCLING & ECO-DESIGN: Near zero-landfilling / Near zero-water discharge

36 innovation programmes
• **First-of-a-kind Large scale plants in operation**
  - Combine one or several P4Planet Innovations towards the 2030/2050 ambitions to reach Climate neutrality and circularity
  - Acting as Hubs of bulk amounts of resources from industry and the municipalities.
  - Several marbles will likely connect to reach together the targets of the partnership’s KPIs
  - **50+ Marbles** identified of which ca. We aim to **launch 15 in the period 2021 – 2030**, responding to the Green Deal plan, and enabled by the P4Planet innovation portfolio

**PRIVATE INVESTMENTS**

• Industry leader commitment

• when technical and economic feasibility is proved through Horizon Europe programs.

• Public support needed to de-risk and accelerate

**Ambitions to enable Prosperity for all**

- **Climate neutrality**
  - Net-zero emissions

- **Circularity:**
  - Near zero landfilling
  - and near zero water discharge

- **Competitive EU process industries**
Generating impact across EU regions

Ambitions to enable Prosperity for all
- Climate neutrality: Net-zero emissions
- Circularity: Near zero landfilling and near zero water discharge
- Competitive EU process industries

Hubs for Circularity

Regional community
- Industries
- Start-ups/SMEs
- Research/Academia
- Public sector co-investment and regulation
- Societal awareness

Sustainable business models
- Use of geographical advantage
- New value chains
- Co-investments
- Economic solutions

Disruptive innovation
- Recycling technologies
- Alternative resources
- Material design
- Digitalisation
- Logistics

Circularity:
- Near zero landfilling
- Near zero water discharge

Processes4Planet
On a regional level,

- Knowledge on local availability of material and heat flows and resulting opportunities and requirements
- Value chains need to be developed based on the flows, optimizing logistics.
- Create regional value loops in an inter-plant scenario.

On the European level,

- Development of the technologies, knowledge, tools and best-practice exchange to accelerate roll-out of I-US.
- Bringing together the regional H4C in one network of networks
- Collaboration with other initiatives (EIT KICs, The H2 Valleys, the Digital Innovation Hubs or other pan-European initiatives).
2021-2022 topics under Horizon Europe

**Deadline 23/09/2021**

- **HORIZON-CL4-2021-TWIN-TRANSITION-01-14**: Deploying industrial-urban symbiosis solutions for the utilization of energy, water, industrial waste and by-products at regional scale (Processes4Planet Partnership) (RIA)
- **HORIZON-CL4-2021-TWIN-TRANSITION-01-16**: Hubs for Circularity European Community of Practice (ECoP) platform (Processes4Planet Partnership) (CSA)
- **HORIZON-CL4-2021-TWIN-TRANSITION-01-21**: Design and optimisation of energy flexible industrial processes (Processes4Planet Partnership) (IA)
- **HORIZON-CL4-2021-RESILIENCE-01-01**: Ensuring circularity of composite materials (Processes4Planet Partnership) (RIA)

**Deadline 30/03/2022**

- **HORIZON-CL4-2022-TWIN-TRANSITION-01-10**: Circular flows for solid waste in urban environment (Processes4Planet Partnership) (IA)
- **HORIZON-CL4-2022-TWIN-TRANSITION-01-11**: Valorisation of CO/CO2 streams into added-value products of market interest (Processes4Planet Partnership) (IA)
- **HORIZON-CL4-2022-TWIN-TRANSITION-01-15**: New electrochemical conversion routes for the production of chemicals and materials in process industries (Processes4Planet Partnership) (RIA)
- **HORIZON-CL4-2022-TWIN-TRANSITION-01-17**: Integration of hydrogen for replacing fossil fuels in industrial applications (Processes4Planet Partnership) (IA)
Governance and External consultation

PRIVATE PARTNER

ASPIRE

- GENERAL ASSEMBLY
  1 representative per member
- Board of Directors
  Up to 29 members + 1 SME
- A.SPIRE OFFICE
  Executive Director
- A.SPIRE Advisory Group
- WG
  A.SPIRE Experts

PARTNERSHIP BOARD

- Signatories
- Commitment
- Decision making

PUBLIC PARTNER

PROCESSSES4PLANET

EXTERNAL ADVISORY COMMITTEE

Civil Society
- Informed Feedback
- NO validation

Funders & Investors
- Moving towards TRL9

FEEDBACK PANEL

IMPACT PANEL
WHY JOIN A.SPIRE

Teaming up to address the challenges of Climate Change, Circular Economy and Competitiveness together

LARGER INDUSTRIES:
• Continuous dialogue on R&I across SPIRE sectors and beyond
• Channel to raise your voice on R&I for HEU & other programmes
• Access to a pool of knowledge & talent (in Universities, research centres....)
• Direct access to SME providers
• Collaboration with the innovation ecosystem and value chain
• Access to developments by other projects, SMEs, universities...
• Protection of intellectual property
• Dialogue with the EC, MS, regions, MePs & other stakeholders

SMEs:
• Direct Access to growth opportunities
• Direct Access to new markets
• Direct Access to large industry customers

RTOs, Universities, NGOs, Innovation agencies, Regions et al.:
• Direct Access to applied innovation
• Link to deliver impact to society and regions
• Collaboration for disruptive innovations

BECOME A MEMBER. Send us an online application
2021 EVENTS

- **8 – 19 February**: P4Planet first Brokerage / Ideation event and virtual networking
- **April (tbc by the ED)**: Informal Partnership Board meeting with the EC to prepare for the launch of Processes4Planet (Virtual)
- **21 April**: H4Cs Workshop with Member States
- **Mid-June**: P4Planet brokerage actions – follow up
- **End-June (tbc by the EC)**: EC Info Days on Horizon Europe 1\textsuperscript{st} Work programme
- **23-24 June**: R\&I Days
- **23 June**: P4Planet Partnership MoU signature & launch event (Virtual; side event of R\&I Days)
- **October**: A.SPIRE community event & stakeholders’ event (hybrid/virtual)

**Board meetings:** January, March, April, June, November 2021

**From July to December 2021:**
- kick-off of A.SPIRE new Advisory and WGs (only for A.SPIRE members)
- kick-off of P4Planet’S Partnership Board + Feedback Panel + Impact Panel
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