













MISSION AND VISION STATEMENT

Processes4Planet is a cross-sectorial R&I partnership that aims at transforming the European process industries to achieve the overall climate neutrality at the EU level by 2050 by developing and deploying climate neutral solutions and bringing technological and non-technological innovations to readiness for subsequent deployment.

The partnership aims to:

- close the energy and feedstock loops through sustainable circular business models, innovations, cross-sectoral collaboration and engagement with local ecosystems.
- achieve a global leadership in climate neutral and circular solutions, accelerating innovation and unlocking public and private investment.

P4Planet represents companies, associations, SMEs, research and technology organisations, NGOs, regions, etc. from ten process industry sectors.

KEY FACTS AND FIGURES

Horizon Europe Pillar and Cluster: Pillar II - Cluster 4: Digital, industry and space

Type of partnership: Co-programmed

Coordinating entity: Private members are represented by A.SPIRE. The

Commission's contacts are DG RTD E3 and DG GROW.

Total estimated budget: EUR 2.6 bn

EU commitments: Up to EUR 1.3 bn

Partners' commitments: Up to EUR 1.3 bn

Predecessor under Horizon 2020: SPIRE cPPP

FIND OUT MORE

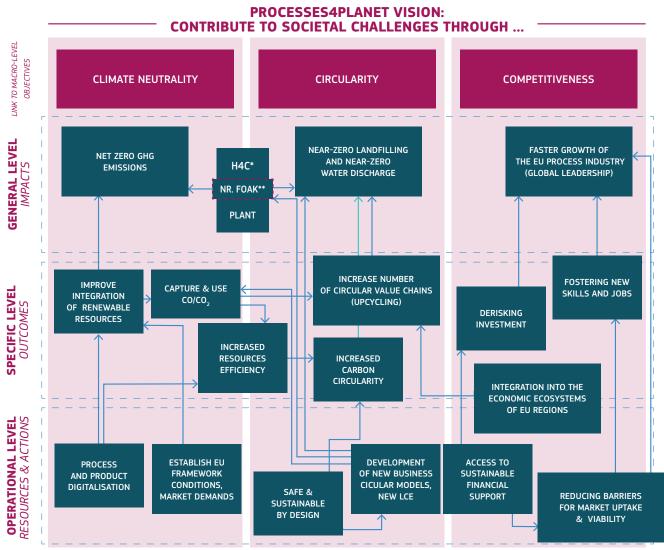
https://www.aspire2050.eu/p4planet/about-p4planet

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PARTNERSHIP SPECIFIC IMPACT PATHWAY (PSIP)



*H4C: Hubs for Circularity *FOAK: First-of-a-kind



PARTNERSHIP'S KEY PERFORMANCE INDICATORS

| KPI NAME* | UNIT OF MEASUREMENT | BASELINE | TARGET 2023 | TARGET 2025 | TARGET 2027 | AMBITION >2027 |
|---|---|------------------------------|-------------------|-------------------|-------------------|--------------------|
| RESOURCES (INPUT), PROCESSES AND ACTIVITIES | | | | | | |
| Private investment ⁸ | Leverage factor | 2 | N/A | 5 | 6 | 10 |
| Significant innovations ⁹ | # | 5 | N/A | 12 | 14 | 60 |
| CAPEX & OPEX reduction ¹⁰ | Millions € | 0 (P4Planet) | As per project | As per project | As per project | As per project |
| New skills and job profiles ¹² | # | 0 (P4Planet) | N/A | >2 | >3 | 20 |
| OUTCOMES** | | | | | | |
| CO ₂ eq emission | % | | | | | |
| (1) integration of renewables /efficiency ¹ | | 1990 levels | N/A | -60 | -70 | -100 |
| (2) CO ₂ Capture and Use ² | | 1990 levels | N/A | -60 | -70 | -100 |
| Waste volume ³ | % | 1990 levels | N/A | -40 | -50 | -75 |
| Secondary materials use intensity ⁴ | % | 1990 | N/A | +40 | +50 | +80 |
| Water reused/recycled ⁵ | % | < 5 % | N/A | +40 | +50 | +90 |
| H4C establishment ⁶ | # | 0 | N/A | 7 | 15 | > 45 |
| IMPACTS*** | | | | | | |
| CO ₂ eq emission (1) integration of renewables /efficiency ¹ (2) CO ₂ Capture and Use ² | % of CO ₂ emission reduction At 50 % IL**** At 90 % IL At 100 % IL | TBD | TBD | TBD | TBD | -50 -90 -100 |
| Waste volume ³ | % of waste reduction At 50 % IL At 90 % IL At 100 % IL | TBD | TBD | TBD | TBD | -50 -90 -100 |
| Secondary materials use intensity ⁴ | % of secondary materials used At 50 % IL At 90 % IL At 100 % IL | TBD | TBD | TBD | TBD | +50 +90 +100 |
| Water reused/recycled⁵ | % of water re-used At 50 % IL At 90 % IL At 100 % IL | TBD | TBD | TBD | TBD | +50 +90 +100 |
| First-of-a-kind plants (TRL 9) ⁷ | # of FOAKs at TRL9 | 0 | 2 | 4 | 15 | > 90 |
| Process industry growth ⁸⁻¹⁰ | GDP % | Faster than EU-27 GDP growth | | | | |

^{*} Footnote numbers refer to KPI numbers in MoU between P4Planet and EC

^{**} Outcomes based on demonstrators at TRL 7 $\,$

^{***} Measured on a relevant number of FOAKs (First Of A Kind) at TRL9 (50 % implementation, 90 % implementation, 100 % implementation)

^{****} Implementation Level



Processes4Planet KPIs are defined in SRIA 2050 and the partnership's guidance document. In both documents, it is specified that the baseline of the KPIs will take as a reference the levels of 1990. No amounts were included. A methodology on how to effectively assess the progress towards these KPIs will be developed in 2022. The specific baseline amounts will be included during this process.

Portfolio analysis will be developed regularly based on the results of the periodic monitoring and of the surveys launched by A.SPIRE. This will consider what challenges are to be encountered to achieve the objectives, which innovation programmes need to be phased out and which new ones to be phased in.

The reporting will be based on the data gathered through two biennial surveys. One survey will target industry and collect data on industry contributions. The second survey will target Processes4Planet's projects and their related in-kind contributions and investments.

The two last Progress Monitoring Reports (PMRs) of SPIRE cPPP can be found <u>here</u>. Each PMR includes success stories. These can also be found in the last SPIRE projects brochure <u>here</u>. A 2020 trends report can be found <u>here</u>.

SYNERGIES WITH OTHER EUROPEAN AND NATIONAL INITIATIVES

SYNERGIES: STORY 1

SPIRE cPPP and BBI JU have collaborated during Horizon 2020 to ensure a good alignment of their work programmes and to identify opportunities to maximise the cross-fertilisation of results of the projects. This has included:

- 2012-2020: joint working group with regular meetings (two to three times per year) to share experiences, reporting methodologies, analysis of projects etc.;
- 2012: signature of the document SPIRE PPP & BIO PPP: Joint Narrative and Docking Points (annexed);
- 2018: signature of the document BBI JU and SPIRE team up for synergy of actions, which can be found here.

SYNERGIES: STORY 2

P4Planet and Clean Steel have set up discussions already at the stage of their SRIAs development. The actions have included:

- regular meetings between A.SPIRE, ESTEP and EUROFER to reach alignments;
- signature of the joint declaration in 2019 by A.SPIRE, EUROFER and ESTEP on Circular and Carbon Neutral Industry and Clean Steel-Low Carbon Steelmaking proposed partnerships for Horizon Europe, which can be found https://example.com/here/;
- steel sector is part of A.SPIRE 10 sectors this allows for regular conversations and to identify on the spot when alignments across the work programmes are needed. The further set up for the collaboration along Horizon Europe is under discussion.

SYNERGIES: STORY 3

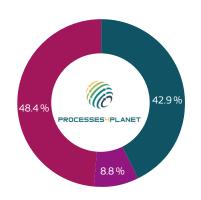
P4Planet and Clean Hydrogen have set up discussions already at the stage of their SRIAs development. The actions have included:

- regular meetings between FCH JU and A.SPIRE, and with their respective units at DG RTD, along with alignments in the SRIAS and in the work programmes;
- participation of A.SPIRE in the Clean Planet Inter-partnership Assembly;
- a joint document on the collaboration of P4Planet and Clean Hydrogen during Horizon Europe is under joint development and discussion.



OVERVIEW OF MEMBERS

MEMBERS PER TYPE



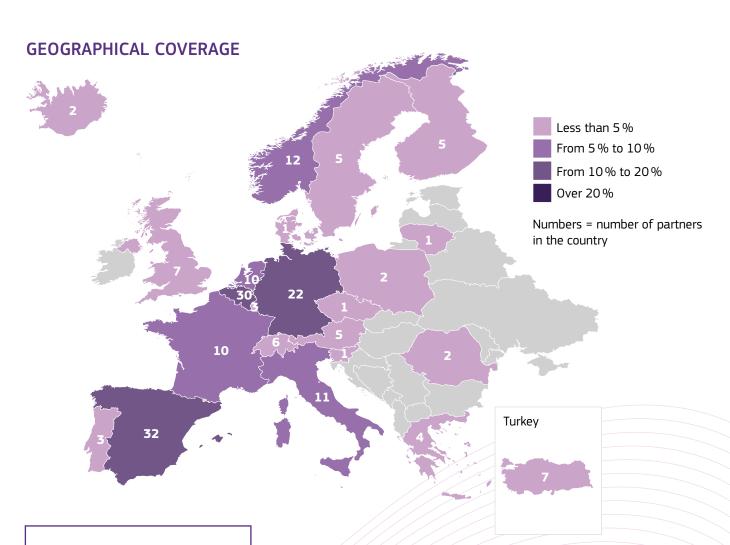
INDUSTRY Other Industrial and/or profit Private organisation

RESEARCH Public research organisation

(including international research organisation as well as private

research organisation controlled by a public authority)

OTHERS Non-profit, associations, state companies etc.



Total number of partners: 182