

EN Annex 9

Memorandum of Understanding for the Co-programmed European Partnership Processes4Planet (P4Planet)

The A.SPIRE aisbl, representing the partners other than the Union (its constituent entities¹), the registered offices of which are in Rue Belliard 40, B-1000 Brussels, hereafter referred to as the “Partners other than the Union”, and the European Union, represented by the European Commission, (jointly hereinafter referred to as “the Partners”),

Considering that:

- Parts of Horizon Europe – the Framework Programme for Research and Innovation (‘Horizon Europe’) ² – may be implemented through Co-Programmed European Partnerships, on the basis of a Memorandum of Understanding between Partners determined to support the development and implementation of research and innovation activities of strategic importance to enable the Union to address global challenges and maintain its competitiveness in line with EU priorities, including the Sustainable Development Goals;
- The Strategic Plan for Horizon Europe³ has identified a candidate for a Co-Programmed European Partnership Processes4Planet (P4Planet) considered instrumental to deliver scientific, economic and societal impact in line with the Horizon Europe objectives. Process industries, in particular energy intensive industries, represent an ecosystem under the Industrial Strategy, which is also at the centre of the implementation of the Green Deal;
- The proposal received from the Partners other than the Union has been positively assessed by the European Commission in that it fulfils the new ambition and the selection criteria referred to in Article 10 and Annex III of Regulation (EU) 2021/695 of the European Parliament and of the Council⁴ (‘Horizon Europe’);
- The implementation, monitoring and evaluation of the European Partnerships will comply with the criteria referred to in Annex III of Horizon Europe, including an alignment with Horizon Europe monitoring and evaluation provisions, set out in Article 50 and Article 52, as well as Annex V on Key Impact Pathways;
- The multi-annual Strategic Research and Innovation Agenda (SRIA) agreed by the Partners will provide the basis for the development of the co-operation under this

¹ Constituent entities are the members of the Association.

² Regulation (EU) 2021/695 of the European Parliament and of the Council of 28 April 2021 establishing Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination (OJ L 170, 12.5.2021, p. 1–68.)

³ <https://op.europa.eu/en/web/eu-law-and-publications/publication-detail/-/publication/3c6ffd74-8ac3-11eb-b85c-01aa75ed71a1>

⁴ OJ L 170, 12.5.2021, p. 1–68.

Memorandum of Understanding, and for defining the annual priorities in line with the Strategic Plan for Horizon Europe;

- Regulation (EU) 2020/852⁵ establishes the general framework for determining whether an economic activity qualifies as environmentally sustainable for the purposes of defining sustainable investments. It creates a common reference that investors, banks, industry and researchers can use when investing in projects and economic activities that have a substantial positive impact on climate and environment and no significant harm on any of them. It is the reference for green investments in the Union;
- Funding sources other than Horizon Europe (other Union programmes as well as external funding sources, including those from Member States) will be explored in order to contribute to the achievement of objectives of the Co-programmed European Partnership in line with Horizon Europe objectives;
- The European Partnership Processes4Planet is directly related to different EU policies which address the process industry; these are:
 - The new industrial strategy for Europe;
 - the European Green Deal;
 - a Europe fit for the Digital Age;
 - an Economy that works for People.
 - Moreover, European Partnership Processes4Planet contributes to following UN Sustainable Development Goals:SDG6: Clean water and sanitation;
 - SDG7: Affordable and clean energy;
 - SDG8: Decent work and economic growth;
 - SDG9: Industry, innovation and infrastructure;
 - SDG12: Responsible production and consumption;
 - SDG13: Climate action.
- Pursuant to Article 4 of the Statutes of A.SPIRE, the Partners other than the Union engage in the European Partnership Processes4Planet (P4Planet) with the European Commission to promote, facilitate and carry out the research, innovation, dissemination and other activities aiming at market, regulatory and societal uptake, including workforce training, necessary to achieve the objectives specified in Section 1 below;
- This Memorandum of Understanding constitutes an agreement in which the Partners will undertake all efforts necessary to achieve the objectives. It is not legally binding and does not, and will not, create any contractual or pre-contractual obligations under any law or legal system. Nothing in this Memorandum of Understanding will be construed as creating any liability, rights, waiver of any rights or obligations for any Partner or as releasing any Partner from its legal obligations. Neither Partner should be liable under this Memorandum of Understanding towards the other Partner;

⁵ Regulation (EU) 2020/852 of the European Parliament and the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (OJ L 198, 22.6.2020, p. 13).

Have agreed the following:

1 Establishment, general, specific and operational objectives

The Co-programmed European Partnership Processes4Planet (P4Planet), hereinafter referred to as “the Co-programmed European Partnership”, is agreed between the Partners, to be implemented in an open, transparent, efficient and flexible way.

This Memorandum of Understanding sets out a cooperative relationship for the duration of the Co-programmed European Partnership with a long-term common vision, and the Partners pledge to pursue this common vision throughout the duration of this Partnership. It will contribute to the objectives of Horizon Europe, and the Strategic Plan.

General objectives

- **GO1 Developing and fostering the deployment of climate neutral solutions:** The transition to climate neutrality can only be achieved if technological and non-technological innovations are brought to readiness for subsequent deployment.
- **GO2 Developing and deploying industrial solutions aiming at closing the energy and feedstock loops:** Through technological and non-technological innovations, cross-sectoral collaboration and engagement with the local ecosystem, process industries will develop and deploy sustainable circular business models and will move towards resource circularity and resource efficiency. Our ambition is to move towards the closure of resource loops. For some processes, the limited availability of secondary resources will still require the reduced use of primary materials.
- **GO3 Fostering the achievement of a global leadership in climate neutral and circular solutions, accelerating innovation and unlocking public and private investment:** The competitive position of the European process industries will be enhanced by a strong positioning as global leaders in economically attractive solutions for climate-neutrality and a fully circular economy and a strengthened integration in the economic fabric of regions and Member States.

Specific objectives

- **SO1 Integrating renewable energy** replacing fossil fuels by renewable energies, renewable H₂ and biomass for electrified processes.
- **SO2 Reducing emissions through the capture and use of CO/CO₂ process emissions** and through the efficient valorisation of CO₂ routes to chemicals, fuels and minerals.
- **SO3 Ensure full circularity and overhaul the use of waste-derived and water resources** achieving a step change in resource efficiency and ensuring full traceability of value chains.
- **SO4 Moving towards commercially viable climate neutral and circular industry solutions,** technological and non-technological for an increased competitiveness of the Process Industry.

- **S05 Fostering new skills & jobs, including digital, and reducing barriers for access and market uptake**, through education and training programmes and through the definition of enabling framework conditions of accessible and inclusive transformative solutions and products.

Operational objectives

- **OO1** Develop new electrified processes and Energy efficiency, ensuring process flexibility and capturing the full potential of renewable energies.
- **OO2** Replace fossil fuels and feedstock by Renewable H₂ and biomass in processes.
- **OO3** Develop new efficient CO/CO₂ Capture and purification technologies.
- **OO4** Develop efficient CO₂ valorisation routes to chemicals, minerals, and fuels.
- **OO5** Design processes for maximum resource efficiency, including the development of materials for circularity.
- **OO6** Develop new processes for circularity of secondary materials from wastes/residues for all industrial processes.
- **OO7** Develop new processes to ensure full valorisation of wastewater, recycled water, energy and solutes recovery.
- **OO8** Seed H4C's to foster circularity within and beyond process industries.
- **OO9** Drive the Partnership's innovation portfolio up to FOAK's in order to de-risk investments.
- **OO10** Foster new framework conditions to generate a market for climate neutral and circular solutions.
- **OO11** Foster new skills and types of jobs and business development, including SMEs, through P4Planet programs and H4Cs.

2 Contributions and activities by the Partners

Any Union contribution, provided through the Horizon Europe Framework Programme to the Co-programmed European Partnership, will be used to fund research and innovation activities, implemented as indirect actions following open calls for proposals and contests. These activities will be subject to the Horizon Europe Rules for Participation and Dissemination.

The European Commission envisages to dedicate up to EUR 1300 million to actions within the scope of the Co-programmed European Partnership⁶.

The Partners other than the Union will provide input and advice to the European Commission in order to contribute to the identification of priorities of research and innovation activities and the definition of call topics to be included in the Horizon Europe Work Programmes **within the scope of the Co-programmed European Partnership's activities**.

⁶ The maximum Union contribution may be increased in duly justified cases (e.g. with contributions to Horizon Europe from third countries if available) and when agreed by the Partners and matched by contributions from the Partners other than the Union.

Furthermore, **the Partners other than the Union envisage⁷ to dedicate up to EUR 1300 million** for the period 2021 - 2030⁸ in research, innovation and other activities in the area of the Co-programmed European Partnership, engaging their constituent and affiliated entities⁹ to make such investments. These contributions will complement the Union contribution and will at least match the Union contribution.

Contributions by the Partners other than the Union^{10 11 12} will take the form of:

- a. **In-kind contributions to the Actions funded by the Union**, consisting of eligible costs in accordance with the Horizon Europe rules minus the Union contribution;
- b. **In-kind contributions to Additional Activities** that are in the scope of the Strategic Research and Innovation Agenda (SRIA) and addressed in the annual Additional Activities Plan, which is approved by the Partnership Board. In-kind Additional activities are those activities which contribute to achieving the objectives of the Co-programmed European Partnership, including R&I at higher Technology Readiness Level (TRL) and/or to ensure demonstration, market, regulatory and societal uptake, which are in the scope of the SRIA but are not covered by Union funding.

For the in-kind contributions generated in Actions with lower funding rates than the maximum funding rates under Horizon Europe, the funding rate will be defined individually per call topic in the Horizon Europe Work Programme. This will range from the standard funding rate for R&I actions, to reduced funding rates for certain R&I actions and for Innovation actions in line with Article 34 of Horizon Europe. The selection of topics with reduced funding rates will be discussed in the Partnership Board.

In addition, the Partners other than the Union intend to make **Investments in operational activities** that go beyond the work foreseen in the SRIA, that contribute to achieving the objectives of the Co-programmed European Partnership and where there is a clear link between

⁷ The undertaking and contribution by the Association covers only the in-kind contributions to be provided by its constituent entities and their affiliated entities (and not any contributions to be provided by its non-constituent entities or by a non-affiliated entity).

⁸ The longer timeline for contributions from Partners other than the Union takes into account the fact that the contributions will materialise over a longer period.

⁹ Entities are affiliated when they have a link with the beneficiary, in particular a legal or capital link, which is neither limited to the action nor established for the sole purpose of its implementation, in accordance with Article 187(1) of the Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council of 18 July 2018 on the financial rules applicable to the general budget of the Union.

¹⁰ In line with Annex III of Horizon Europe and referred as co-investment in Annex V of Horizon Europe.

¹¹ Where applicable, funding from state resources must be compliant with State aid rules.

¹² The European Partnership may consider the 'Do No Significant Harm Principle' pursuant to Article 17 of Regulation (EU) 2020/852 and take into account the provisions of that Regulation to improve access to sustainable finance, where relevant.

the investment and the activities of the Co-programmed European Partnership (e.g. investments in building production facilities, in training programmes for workers potentially upscaled thanks to the European Social Fund Plus (ESF+), and in other activities required for producing and putting on the market the product/service resulting from the R&I performed as part of the Co-programmed European Partnership). These Investments in operational activities are however not included in the abovementioned contributions intended by the Partners other than the Union, but they should be taken into account as leverage.

3 Governance

The Partners should convene in the form of a Partnership Board as the main forum for dialogue and steering to reach the objectives set out in this Memorandum of Understanding. Through the Partnership Board, the representatives of the Partners should agree on all issues concerning the cooperation for the Co-programmed European Partnership. The Partners through their participating representatives are considered as ‘Members’ of the Partnership Board.

The Partners agree on the composition and size of the Partnership Board, while respecting the following principles:

- Adequate representation of the European Commission services, including through acting as co-chair when meeting in the format of the Partnership Board;
- Adequate representation of SMEs;
- Adequate gender balance;
- Adequate geographical coverage.

Participation in the Partnership Board may be on a rotating basis, except for the representatives of the European Commission.

In addition, the Partnership Board may agree to invite, or nominate as observers to its meetings representatives of other European Partnerships, civil society organisations, standardisation bodies, certification bodies, regulators, public procurers as well as experts in the area of the Co-programmed European Partnership.

The Partnership Board will be co-chaired by the European Commission, represented by the lead service in charge of the Co-programmed European Partnership, and a co-chair from the Partners other than the Union, selected among their members nominated to the Partnership Board.

The Partnership Board may lay down its Rules of Procedure, based on a harmonised proposal provided by the European Commission, covering inter alia rules on confidentiality, transparency and avoidance of conflicts of interests.

In order to address strategic issues, the Partners may also convene at a higher level¹³ to review the work of the Partnership Board, take stock of the progress by the Co-programmed European Partnership in achieving its objectives, adjust priorities and activities according to changing market or policy needs or based on results from monitoring and evaluation activities, and discuss further ways to enhance collaboration between European Partnerships and synergies with other Programmes. The implementation of results and proposals from such high-level meetings may be subject to approval by the Partnership Board.

An ‘Advisory Committee’ in the form of two panels, the Feedback Panel and the Impact Panel, will advise accordingly on the priorities to be addressed, in line with the Strategic Research and Innovation Agenda and the Horizon Europe strategic planning, and suggest, in view of the progress of the Co-programmed European Partnership, adjustments or re-orientations to the Partnership Board, where necessary. The members of these panels will reflect a balanced representation of experts and stakeholders from across Europe within the scope of the priorities of the Co-programmed European Partnership, including e.g., end-users, non-governmental and civil society organisations, and regulatory bodies. The corresponding Panels may elect a chairperson from among its own members.

Feedback Panel

A Feedback Panel will be established as an open dialogue with civil society stakeholders of P4Planet in order to obtain a genuine public interest approach.

Besides the Partners, the participants of the Feedback Panel will include NGOs, trade unions, as well as other civil society associations of interest, such as consumer associations, or other specific experts that later could be identified and agreed by the Partnership Board. The participants of the Feedback Panel will not be partners but important for the strategic dialogue.

Feedback panel participants will provide:

- a. General information on upcoming environmental, social and economic trends and challenges (including studies or other background information) affecting the SRIA, work programmes and ongoing projects funded under Horizon Europe.
- b. Contribute to the identification of next work programme priorities, particularly in relation to environmental aspects (circularity, climate change, etc.), social aspects (innovation, social sciences, skills agendas, citizens’ needs, etc.), as well as the impact on regions of the EU and associated countries.
- c. Feedback to consortia on their project developments by joining public partnership and project events.

The Feedback Panel will be chaired by the chair and co-chair of the Partnership Board.

¹³ For example, between the President of the Association and a Director-General from the European Commission.

Impact Panel

The Partnership Board will establish an Impact Panel consisting of representatives from the Partnership Board, the Commission and of funding and financing bodies.

The Impact Panel will set a dialogue to drive R&I developments towards the impact and investment phase to jointly define ways to de-risk innovation up to TRL9 and will further act as an interface and amplifier with the funding and financial bodies, on the following matters:

- d. The status of the technologies developed and their readiness to be integrated in the first-of-a-kind plants.
- e. The status of the Hubs4Circularity (H4C) and their potential to be developed at full scale and for the solutions to be transferred across H4Cs and EU regions.
- f. Specific measures at EU, national or regional level with regard to deployment activities in relation to the respective initiative and identification of potential areas of cooperation, including concrete actions taken or envisaged for the deployment of relevant technologies and innovative solutions;
- g. Integrating the principles of EU Taxonomy and sustainable financing into the implementation of projects and economic activities.
- h. Specific recommendations for the framework conditions for competitiveness and market uptake.
- i. Synergies with other funding and investment programmes.

Both partners will discuss progress and achievements of the partnership in regular and dedicated workshops with Member States and associated countries represented in the competent Strategic Programme Committee in charge of implementing the Cluster “Digital, Industry and Space” under Horizon Europe.

The Partners other than the Union may arrange their own governance structures, providing that these do not contradict this Memorandum of Understanding. They may invite a European Commission representative as observer to meetings of their governance structure on subjects related to the Co-programmed European Partnership. The European Commission services may participate as observers to meetings of technical groups set up by the Partners other than the Union that are relevant for the Co-programmed European Partnership.

4 Activities and commitments of the European Commission

The European Commission undertakes to duly take into account the input and advice from the Partners other than the Union when identifying and defining call topics for research and innovation activities in the scope of and linked to the Co-programmed European Partnership Processes4Planet (P4Planet) to be included in the Horizon Europe Work Programmes. For this purpose, the European Commission undertakes to consult and maintain a regular dialogue with the Partners other than the Union during the preparation of the Work Programmes. The call topics will be subject to Horizon Europe comitology procedures.

The European Commission may support and contribute to the regular monitoring of the Co-programmed European Partnership, including through its participation in the Partnership Board, the Impact Panel, the Feedback Panel and in other activities, in line with the Horizon Europe monitoring provisions (Article 50). The European Commission shall also carry out in a timely manner the interim and final evaluation of the Co-programmed European Partnership feeding into Horizon Europe evaluations, as specified in Article 52 of Horizon Europe. These evaluations will inter alia be fed by a self-assessment provided by the Partners other than the Union on the achievement of objectives and how their commitments have been fulfilled and contributions made throughout the lifecycle of the Co-programmed European Partnership.

The evaluations will examine how the Co-programmed European Partnership fulfils its mission and objectives, cover all its activities and evaluate its European added value, effectiveness, efficiency, including its openness and transparency, the relevance of the activities pursued and their coherence and/or complementarity with relevant regional, national and Union policies, including synergies with other parts of Horizon Europe (such as missions¹⁴, clusters or thematic/specific programmes). The evaluations will take into account the views of stakeholders, at both European and national level. The evaluations will include, where relevant, an assessment of the most effective policy intervention mode for any future action, as well as the relevance of any possible renewal of the Co-programmed European Partnership given the overall policy priorities and the research and innovation support landscape, including the coherence and positioning against other initiatives supported through the Framework Programme, in particular European Partnerships or missions.

5 Activities and commitments of the Partners other than the Union

5.1 Activities

The Partners other than the Union undertake to provide inputs and advice to the European Commission in order to achieve the objectives of the Co-programmed European Partnership. In particular, they may provide input and advice to the European Commission in order to contribute to the identification of priorities of research and innovation activities and the definition of call topics to be included in the Horizon Europe Work Programmes, in view of financial support for indirect actions following calls for proposals and contests. This is without prejudice to the outcome of the Horizon Europe comitology procedures.

The Partners other than the Union also undertake to make the following In-kind Additional Activities and Investments in operational activities in support of the objectives set out in Section 1 of this Memorandum of Understanding:

- a) Scope of In-kind Additional Activities. In-kind Additional Activities may include:

¹⁴ Should missions be confirmed. Hereinafter, missions are mentioned under the condition that they are confirmed.

- i. Favour the scale up and uptake of results from P4Planet projects into solutions that can be integrated into FOAKs or transferred across the H4Cs.
- ii. Support, development of, and investment in FOAK plants or FOAK units in existing plants at TRL9 proving their technical and economic feasibility for future roll out. (thanks to the definition of routes to de-risk investments beyond Horizon Europe through a dialogue with the funders and investors at the impact panel)
- iii. Additional R&I that addresses P4Planet 2050 roadmap and is not directly linked to a project receiving an EC contribution, but are triggered by the existence of the partnership and the roadmap jointly developed by the ten sectors and the whole A.SPIRE community.
- iv. Support the development of H4Cs through a European community of Practice and the scale up and uptake of their results and circular models across the EU regions.
- v. Support the identification of framework conditions for the market uptake of “climate neutral and circular” solutions through the identification of GAPS (framework regulation, standards, better integration within value chains, across sectors, society and public authorities) that A.SPIRE community can bring to other policy decision making or industrial fora (e.g. the Impact panel, the HLG-EII et al.).
- vi. Activities to develop or contribute to ecosystems that will enable or accelerate the development of the solutions of P4Planet roadmap: energy efficiency -electrification, process innovation, digitalisation and competitiveness of the Process Industry; that aim at stimulating investments.
- vii. Develop or foster development of skills curricula with local educational organisations, involving social parties where relevant.
- viii. Improve engagement with local public and private stakeholders: a stronger engagement at local level with regions, cities, citizens and other local stakeholders is essential to deliver positive impact, to close material loops and achieve overall climate neutrality.

b) Scope of Investments in operational activities. Investments in operational activities may include:

- i. Additional investments in operational activities linked to the FOAKs, the H4Cs and the roll out of the solutions.
- ii. Investments in engineering and construction of industrial plants linked to the full deployment and roll out of the solutions once TRL9 is reached (whether they relate to a FOAK, a H4C or any other solution or new business model).
- iii. Investments of the regions, MS, academia or industry to "deploy" the new academic or vocational training curricula (e.g.: dual training systems, new academic curricula, etc..) and to actually train the workforce to operate the new industrial plants referred to in b)
- iv. Investments affecting the value chain that are relevant to the ambitions of the roadmap but are beyond the roadmap.
- v. Investments on CCS and other technologies, which are not included in the SRIA but that can contribute to achieve the climate ambitions, including contributions through the IPCEIs but not exclusively.
- vi. Investments on industrial infrastructures needed to operate the industrial plants foreseen under ii)

- vii. Investments to support municipal or regional facilities that are related to the full scale up of the H4Cs
- viii. Investments in marketing or advocacy campaigns needed to take to the market the products resulting from the R&I performed as part of the Co-programmed European Partnership.

The planning and reporting of In-kind Additional Activities and Investments in operational activities will respect confidentiality requirements.

5.2 Openness and transparency

An appropriate level of openness is necessary to achieve the objectives of the Co-programmed European Partnership. Thus, the Partners other than the Union undertake to put in place measures that ensure:

- a) An open and transparent process for consulting their constituent entities and other relevant stakeholders as well as Member States and Associated Countries on the identification of the priorities of the Co-programmed European Partnership and the design of its activities, which results in an appropriate involvement of all relevant stakeholders;
- b) A governance structure that results in a high level of openness and transparency, including publishing information on the functioning of the Co-programmed European Partnership (composition of partnership structures, decisions made by the Partnership Board etc.);
- c) A growing participation in and contribution to the Co-programmed European Partnership, supported by an open policy to membership in the Association and an appropriate level of information and, if necessary, assistance to all constituent entities of the Partners other than the Union.

In particular, the Partners other than the Union undertake to ensure that the In-kind Additional Activities that they contribute are, to the extent possible, open for participation to non-members of the Co-programmed European Partnership (e.g. dissemination and exploitation activities, etc.) and based on equal treatment.

Also, the Partners other than the Union undertake to put in place appropriate measures for informing SMEs, civil society and other relevant stakeholders about the Co-programmed European Partnership and promoting their participation.

5.3 Dissemination and communication

The Partners undertake to communicate and disseminate their activities and results broadly and through various channels, in order to ensure that any necessary information in the area of the Co-programmed European Partnership is available to all possible stakeholders, all along its duration.

The Partners undertake to engage in information, communication, publicity and dissemination and exploitation activities of the Co-programmed European Partnership by applying mutatis mutandis Article 51 of Horizon Europe.

This communication and dissemination will also ensure that the EU support to the Co-programmed European Partnership is visible.

5.4 Coherence and coordination with other European Partnerships and beyond

The Partners undertake to set up and maintain a clear strategy and plan for the interfaces and joint activities of the Co-programmed European Partnership with the other relevant European Partnerships, as well as with the broader European research and innovation system and communities.

The Partners other than the Union will establish a formal and regular collaboration with the following other European Partnerships:

- a) European Partnership for Clean Steel - Low Carbon Steelmaking
- b) European Partnership Clean Hydrogen
- c) Collaboration with other European Partnerships and initiatives can be agreed by the Partnership Board

The SRIA sets out further details, as appropriate, on coherence and collaboration with other European Partnerships, synergies with other Union programmes, Union bodies and national, international, and intergovernmental programmes and policies, and the relevant parts of Horizon Europe (including missions).

The Partners other than the Union will report specifically on their collaboration with other European Partnerships in their annual reporting.

5.5 Fulfilment of commitments

The Partners other than the Union undertake to put in place measures that ensure that the contributions agreed are provided in full, and on time.

The Partnership Board may monitor, throughout the life of the Co-programmed European Partnership, the contributions reported by the Partners.

If the contribution by the Partners other than the Union is significantly lower than the overall estimation agreed in the Annual Additional Activities Plan, the Partnership Board may make recommendations to the Partners other than the Union on adjustment measures.

If the action taken is not sufficient to reach the contribution originally agreed, the Partnership Board may recommend the European Commission to adjust its own contribution to match the contribution *de facto* made by the Partners other than the Union.

6 Monitoring and reporting

The activities of the Co-programmed European Partnership will be subject to continuous monitoring and periodic reporting in accordance with Article 50, Annex III and Annex V of Horizon Europe. The outcomes of monitoring and reporting will feed into the evaluations of the Co-Programmed European Partnerships as part of Horizon Europe evaluations. It will feed into the biennial monitoring of the European partnerships in the context of the Strategic Coordinating Process.

The continuous monitoring and periodic reporting by the Partners will be carried out at least annually for the duration of the Memorandum of Understanding. There will be a simplified reporting over one year and a full reporting every second year.

The full reporting, every second year, should cover all points listed below (a-e). The simplified reporting, every one year, should focus on elements where data can be extracted from the Commission or other databases, for points a to c.

The periodic reporting from Partners other than the Union will include:

- a) The progress of the Co-programmed European Partnership towards its objectives (based on the Key Performance Indicators (KPI)) and the expected scientific, economic and societal impacts (following the Horizon Europe Key Impact Pathways). This reporting should also contain a qualitative assessment of the KPI for the past year.
- b) Information on the functioning of the Co-programmed European Partnership, including on openness, transparency, collaboration and synergies with other European Partnerships and initiatives, etc. in line with the implementation criteria for European Partnerships.
- c) Agreed and actually provided contributions.
- d) Investments in operational activities undertaken by the Partners other than the Union, and leverage including additional public and private investment mobilised to exploit or scale-up partnership results.
- e) Structured and representative “impact case studies”¹⁵ that will be used to highlight lessons learned from specific projects/activities, their drivers and barriers to impact, and their possible follow-up with the appropriate instruments, including other forms of support outside the Co-programmed European Partnership, such as training and skills development.

The monitoring and reporting will be done on the basis of evidence provided by Partners, respecting confidentiality of information and avoiding anti-competitive behaviour. To the extent

¹⁵ i.e. high potential project outcomes that can be fast-tracked towards further investment and rapid development.

possible, Partners will provide monitoring data in close to real-time following Horizon Europe, in particular management and implementation data. To the extent possible, the indicators and methodologies used to monitor the progress of the Partnership towards its objectives and scientific, economic and societal impacts should be harmonised and aligned with the monitoring framework of Horizon Europe (Key Impact Pathways), and the monitoring criteria of European Partnerships.

With due regard to their respective competencies, institutional settings and operational frameworks, the Partners may regularly inform and consult each other on the results of the monitoring, including to assess the contributions of the In-kind Additional Activities and Investments in operational activities undertaken by the Partners other than the Union.

The monitoring and reporting should allow for an assessment over time of their results and progress towards impacts, their visibility and positioning in the international context, and potential needs for adjustment measures.

Upon request, the Partners other than the Union engage to provide the European Commission with additional necessary information for the assessment of the achievements of the Co-programmed European Partnership in the context of the overall Horizon Europe evaluation, respecting confidentiality of information, and in the context of the Strategic Coordinating Process for European Partnerships (e.g. input to the biennial monitoring of the European Partnerships).

6.1 General systems

The Partners undertake to set up and implement an effective reporting and monitoring system that allows the Co-programmed European Partnership as well as the European Commission to track progress over time towards the stated objectives and impacts, as well as to provide implementation and management data.

The information provided should include, among others:

- a) Detailed information on the calls for proposals in the Horizon Europe Work Programme, the proposals received, the grants resulting from these calls, the beneficiaries and participants, the results achieved by individual projects and their overall progress towards impact, or any other information deemed necessary for developing, implementing, monitoring and evaluating Union policies or programmes. Such access to information is limited to non-commercial and non-competitive use and will comply with applicable confidentiality rules. The primary means of collecting information will be through European Commission's reporting systems for management of the Horizon Europe programme;
- b) Activities and fulfilment of contributions by the Partners other than the Union, progress towards objectives, deliverables and KPIs, visibility and positioning in the international

context, the results, impacts and leverage. The primary means of collecting information will be through annual and biennial¹⁶ reporting by the Partners other than the Union and through European Commission's reporting systems for management of the Horizon Europe programme. Information collection will be based on a common methodology specified by the Commission services in consultation with the Partners other than the Union.

The Partnership Board may identify the best approach to track progress towards the specific KPIs and characteristics of the innovation processes of the Partnership.

6.2 Reporting method for In-Kind Contributions to Additional Activities and Leverage

There are three categories related to contributions and activities that Partners other than the Union will be reporting on:

- a) In-kind contributions to the Actions funded by the Union¹⁷. At the level of the projects, reporting will be done continuously through European Commission's reporting systems for management of the Horizon Europe programme;
- b) In-kind contributions to the additional activities, foreseen in the Additional Activities Plan. At the level of the partnership, reporting will be done annually by the Partners other than the Union and continuously through European Commission's reporting systems for management of the Horizon Europe programme¹⁸;
- c) Investments in operational activities foreseen beyond the SRIA, and leverage including other investment mobilised to exploit or scale-up partnership results. At the level of the partnership, reporting will be done biennially¹⁹ by the Partners other than the Union and continuously through European Commission's reporting systems for management of the Horizon Europe programme²⁰.

The value of the in-kind contributions reported by the Partners other than the Union will be calculated on the basis of a common methodology in line with Annex V of Horizon Europe. The Partners may keep an anonymised record of these contributions from its constituent entities, which provides the basis for periodic reporting of the total value by the Partners other than the Union of in-kind contributions to the partnership's activities.

¹⁶ i.e. once every two years.

¹⁷ Contributions from beneficiaries that are not members or affiliates of the partners other than the Union cannot be considered as a contribution from partners but these will be considered as part of quantitative leverage effect.

¹⁸ For example, project reporting will include fields about 'Further investment mobilised to exploit or scale-up project' that could be used for the partnership-level reporting.

¹⁹ i.e. once every two years.

²⁰ For example, project reporting will include fields about 'Further investment mobilised to exploit or scale-up project' that could be used for the partnership-level reporting.

6.3 Key Performance Indicators (KPIs)

The following Key Performance Indicators are defined for the Co-programmed European Partnership and will be included in monitoring and reporting:

General Objectives	Specific objectives	Operational objectives		KPI	Objective by 2030
CLIMATE					
GO1.- Developing and fostering the deployment of climate neutral solutions	SO1.- Integrating Renewable energy	OO1.- Develop new electrified processes and Energy efficiency, ensuring process flexibility and capturing the full potential of renewable energies	KPI 1	CO2 Eq. emission reduction by integration of renewable energy & energy efficiency**, measured on a relevant* number of demonstrators**	100% of total CO2 eq emission reduction potential demonstrated through R&I projects at TRsL7 **
		OO2.- Replace fossil fuels and feedstock by Renewable H2 and biomass in processes			
	SO2.- Reduce emissions through CO/CO2 capture and use	OO3.- Develop new efficient CO/CO2 Capture and purification technologies	KPI 2	CO2 Eq. emission reduction through CO2 Capture and Use measured through a relevant* number of demonstrators**	100% of total CO2 eq emission reduction potential demonstrated through R&I projects at TRL7 **
		OO4.- Develop efficient CO2 valorisation routes to chemicals, minerals and fuels			
CIRCULAR					
GO2.- Developing and deploying industrial solutions aiming at closing the energy and feedstock loops	SO3.- Ensure full circularity and overhaul the use of waste	OO5.- Design processes for maximum resource efficiency, including the development of materials for circularity	KPI 3	Waste**** reduction measured through a relevant* number of demonstrators**	80% of Wastes reduction potential demonstrated through R&I projects at TRL7**
		OO6.- Develop new processes for circularity of secondary materials from wastes/residues for all industrial processes	KPI 4	Secondary materials use intensity measured through a relevant* number of demonstrators**	80%Secondary materials re-usable potential demonstrated through R&I projects at TRL7**
		OO7.- Develop new processes to ensure full valorisation of waste water, recycled water, energy and solutes recovery	KPI 5	Water reused/ recycled through Energy and solute recovery measured through a relevant*- number of demonstrators**	90% of waste water reused/Recycled potential demonstrated at through R&I projects at TRL7**
		OO8.- Seed H4C's to foster circularity within and beyond process industries	KPI 6	Nbr of H4C seeded through P4Planet projects across EU regions / sites	25 H4Cs launched into the process of development (*****)
COMPETITIVENESS					
GO3.- Fostering the achievement of a global leadership in climate neutral and circular solutions, accelerating innovation and unlocking public and private investment	SO4.- Moving towards commercially viable climate neutral and circular industry solutions	OO9.- Drive the Partnership's innovation portfolio up to FOAK's in order to derisk investment	KPI 7	Marbles (First-of-a-kind plants at TRL9)	Launch 15+ marbles integrating the solutions developed through P4Planet profolio towards the 100% target+
			KPI 8	Significant innovations developed	60 Significant innovations reaching TRL 7-8, of which a substantial part will lead to FOAKs
			KPI 9	CAPEX & OPEX reduction through the new innovations	CAPEX & OPEX reduction through the new innovations
	SO5.- Fostering new skills & jobs and reducing barriers for market uptake	OO10.- Foster new framework conditions to generate a market for climate neutral and circular solutions	KPI 10	Impact in SMEs through the projects and the H4Cs	Impact in SMEs through the projects and the H4Cs
		OO11.- Foster new skills and types of jobs and business development, including SMEs, through P4Planet programs and H4Cs	KPI 11	Nbr of new jobs and job profiles	20 new types of skills and jobs for operators and high-skilled profiles, of which at least 10 integrated in specific academic curricula and 10 integrated company training programs.

NOTES ON THE KPIS:

(1) Relevant number of demonstrators: to provide facts and data necessary to confirm feasibility and large-scale potential.

(2) Demonstrators: we refer to demonstrators at TRL 7 – System prototype demonstration in operational environment. These demonstrators will confirm the achievable impact (% of target, Absolute tons.) and be used as a base to extrapolate the potential impact for full large-scale roll-out in the market and/or at TRL 8 – System complete and qualified.

(3) Energy efficiency target will depend on each solution (case by case) and cannot be confused with the final 100% Target but will contribute to it when combined with other solutions.

(4) Waste reduction enabled through the P4Planet solutions. We will implement these solutions within our Process industries. For wastes outside our Industries, we catalyse the development of circular industry through H4Cs and EU ad hoc policies.

(5) We estimate that reaching the level of, for example, Kalundborg symbiosis, requires years, hence, along Horizon Europe programme, the H4Cs will be in the trajectory towards maturity.

The SRIA sets out further details, as appropriate, on the monitoring framework for the Co-programmed European Partnership.

7 Application of this Memorandum of Understanding

Any issues related to the interpretation and implementation of this Memorandum of Understanding may be decided upon in consultation by the Partners in the Partnership Board. In case of ultimate disagreement, any of the Partners may request an early end of the Memorandum of Understanding.

Adaptations to this Memorandum of Understanding may be requested by any of the Partners by registered letter.

8 Duration and Review

The starting date for the Partnership is *[insert date of signature]* and its end date is 31.12.2030. The last calls for proposals can be launched up until 31.12.2027, so the last three years of the partnership should be used to conclude remaining activities.

Any of the Partners may communicate by a registered letter at any time the motivated intention to end this Memorandum of Understanding. In the absence of renewal, appropriate measures may be taken to ensure phasing-out of Framework Programme funding according to the conditions and timeline agreed with the Partners ex-ante, without prejudice to possible continued transnational funding by national or other Union programmes, and without prejudice to private investment and on-going projects. This phasing-out plan may be prepared by the Partnership Board before the interim evaluation of Horizon Europe.

The periodic monitoring and reporting will inform the interim and final evaluations of Horizon Europe evaluations referred to in Article 52 of Horizon Europe. The evaluations will be taken into consideration in the phasing out or possible renewal of the partnership.

On the basis of these reviews and the evaluations, any of the Partners may propose adaptations to this Memorandum of Understanding, or decide for it to be ended.

Done in duplicate at ... on XX.XX.202X,

FOR THE EUROPEAN COMMISSION	FOR A.SPIRE
...	...