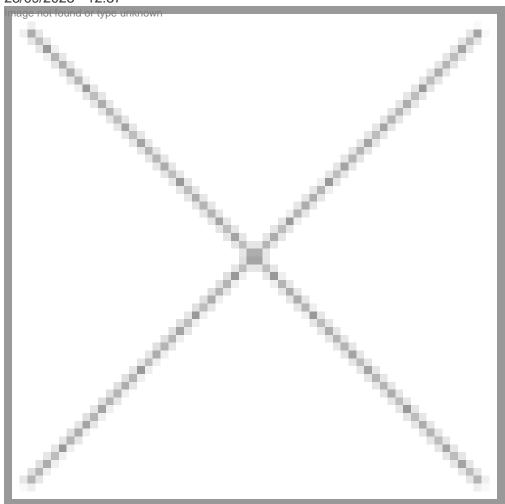
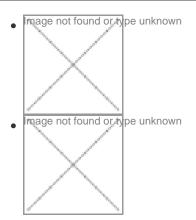


P4Planet

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• • On 20 September, the Processes4Planet Projects Forum in Brussels brought together 27 new Processes4Planet projects funded under Horizon Europe in its first calls in 2021 and 2022. Also presenting at the event were a range of projects funded under Horizon 2020 through our previous SPIRE cPPP.

The event was a great opportunity to interact and share ideas with projects from different calls. The event highlighted the importance of communication between parallel projects and the need to disseminate results widely to enable learning and tackle common issues together. The event also highlighted the value of A.SPIRE membership to get early intelligence on future funding and investment opportunities and to learn from completed projects that were now scaling up or implementing their technologies.

Welcome to all

The event, which was open to all, took place at the Hilton Double Tree in Brussels. The Forum sought to create and enhance synergies between projects to maximize the impact created through SPIRE and the Processes4Planet Partnership and to contribute to the partnership's three overarching ambitions of circularity, neutrality and competitiveness.

The Forum followed a morning brokerage session for A.SPIRE members that kick-started consortium building for upcoming 2024 Horizon Europe calls on optimising thermal energy flows, the use of renewable hydrogen and CO2 emissions as feedstock, breakthroughs to improve resource efficiency, and hubs for circularity for industrialised urban areas.

All participants were welcomed by Àngels Orduña, A.SPIRE Executive Director, with a special mention to UK colleagues attending the meeting following the recent good news about (re) association the Horizon programme.

Àngels outlined Process4Planet's aims, objectives and organisation emphasizing that A.SPIRE members were teaming up to address the major societal challenges of tackling climate change, implementing the circular economy and boosting competitiveness. A new brochure describing all the 27 Processes4Planet projects funded in the first calls for Horizon Europe had just been published.

The main A.SPIRE programming tool is its Strategic Research and Innovation Agenda (SRIA) that is currently being reviewed and updated. Sebastian Engell of the Technical University of Dortmund and the Chair of A.SPIRE's Advisory and Programming Group gave an overview of the SRIA update.

- 1. SRIA was finalised in 2020 and since then the industrial environment in Europe has changed with, for example, much tighter emission reduction goals being introduced. In addition, there had been a conflict induced energy crisis, a pandemic that brought major supply chain problems and increased global competition for strategic raw materials all leading to significant issues in the process industries.
- 2. SRIA update reacts to these and other developments and re-focuses the research and

innovation themes for Processes4Planet. The new SRIA review considers key elements and impacts of the current European regulatory and policy framework and the implications for climate, circularity, planetary boundaries, and Industry 5.0.

A number of medium-term research and innovation priority themes will be elaborated in the revised SRIA: Electrification of the process industries, Developing alternative carriers of energy and their integration, Further continuous improvement of energy and material efficiency, CO2 capture and utilisation, the Design and production of safe and sustainable materials, Circular economy, and Digitalization and human-centric industry.

An important aspect of the SRIA update will be a focus on 'Making It Happen'. It is vital that project outcomes can accelerate to widescale deployment and implementation of breakthrough innovations. To achieve this will require the right funding schemes and framework conditions, and the role of Hubs for Circularity will be important here.

Parallel sessions

The meeting then split into three parallel panel sessions that reflected Processes4Plant's priorities on Circularity of Resources, Electrification and energy efficiency, and Decarbonisation.

The Circularity of Resources session was facilitated by Christophe Pinck of Eydecluster and featured project presentations from three new Horizon Europe projects - DigInTraCE, MC4 and REDOL and one Horizon2020 project: EMB3RS.

Sebastian Engell facilitated the panel on Electrification and energy efficiency that also involved three new Horizon Europe projects: HYPER, TRINEFLEX and FLEXIndustries.

The third panel was on Decarbonization and was facilitated by Daniela Angione of InnoGlobal. This session featured four new Horizon Europe projects – Carbon4Minerals, Threading-CO2, H2Glass and Flex4Fact – and one Horizon 2020 project: FLEXnCONFU.

Making it happen

After a well-earned coffee break a joint panel on 'How to make it happen' – how to accelerate research outcomes to large scale deployment and breakthrough innovation was led by Dorota Pawlucka of Covestro and featured four SPIRE Horizon 2020 projects - RETROFEED, Dryficiency, Macbeth, and MMAtwo and one Horizon Europe project: tExtendedEU. All described their individual experiences and future plans towards commercialisation of project results before entering a wideranging panel discussion.

Numerous points were highlighted including the need ensure good communication between all project partners and ensuring industry interest or market demand for developments. The ability to show long-term demonstration results and case studies in different industrial sectors was also important.

Achieving TRL 9 was also not necessarily the end of road for deployment. Veronika Wilk from Dryficiency noted that the IEA had extended TRLs to 11 with TRL 10 indicating integration of a technology at scale and TRL 11 indicating proof of (commercial) stability.

Posters

Sebastian Engell concluded formal proceedings saying he was encouraged by so many

presentations from projects that had already demonstrated implementation. He looked forward to further collaborations as the review of the Processes4Planet SIRA concluded.

The event ended with a lively networking cocktail and poster session that featured presentations from a selection of SPIRE Horizon 2020 projects, Process4Plant Horizon Europe projects and related initiatives.

The following projects were represented in the poster session: AquaSPICE, Carbon4Minerals, CORALIS, DigInTraCE, EURECOMP, FLEXnCONFU, FORGE, FRIENDSHIP, H2Glass, H4C ECOP and H4C Europe, HIPERMAT, HYINHEAT, HYPER, IMPRESS, iWAYS, MC4, PLAST2bCLEANED, Plastice, PLOOTO, REDOL, RETROFEED, SET-IndEU Strategic Energy Technology for Industry in the EU, tExtendedEU, Threading-CO2, TRINEFLEX, and ULTIMATE.