

Partner search or offer

Date (12-12-22)

(*) Relevant topic(s) in work programme (Code + topic name)

HORIZON-CL4-2023-TWIN-TRANSITION-01-31: Energy efficiency breakthroughs in the process industries (Processes4Planet partnership) (RIA)
HORIZON-CL4-2023-TWIN-TRANSITION-01-37: Hubs for circularity for near zero emissions regions applying industrial symbiosis and cooperative approach to heavy industrialized clusters and surrounding ecosystems (Processes4Planet partnership) (IA)
HORIZON-CL4-2024-TWIN-TRANSITION-01-46: CO₂-neutral steel production with hydrogen, secondary carbon carriers and electricity OR innovative steel applications for low CO₂ emissions (Clean Steel Partnership) (RIA)
Other topics related to decarbonization of the industry

(*) Expected role in the project (explain if different for each topic)

Coordinator, WP leader, Partner

Quick description of the project concept (if applicable, up to 10 lines)

Project objective is to demonstrate and end-to-end application, powered by sustainable hydrogen produced from bio-methane and/or natural gas without oxygen by utilizing microwave plasma technology. Project can include feedstock provider (gas grid, biomethane producer ...), integrator, university and laboratory and an End User. Applications are quite large, from mobility (heavy mobility, H₂ combustion engines), power generation (CHP, electrical Backup) or industrial process (oil&gas flaring, heat, CHP,...). co-produced carbon has also an environmental and economic value that has to be taken into account during the program and on which a partner can position himself.

(*) Description of the expertise requested/proposed (up to 10 lines)

- Sakowin offers to be a H₂ technology provider in Project consortium on a disrupting H₂ production, currently at TRL5
- Co-development programs includes a lab-scale prototype (mid 2023) and an industrial demonstrator (end of 2024) prior to the product readiness (end of 2025)
- Looking for integrator /end user that led the technical, economic and environmental feasibility studies and demonstrations
- Looking for research centers (laboratory, university ...) to lead the R&D that are outside the core process (Carbon usage, Hydrogen Usage, special filtration...)
- End-to-end integration in application (power generation, industrial process, solid carbon uses, mobility ...)

Keywords describing the expertise requested/proposed (up to 10 words)

- Solid carbon usage (agriculture, building material, current usages...)
- Use of cost-competitive and CO₂-free hydrogen (mobility, industrial process...)
- Scalability of the process
- End-to-End integration

Organisation information

Organisation name and country:
Sakowin SAS - France

Type of organisation: <input type="checkbox"/> Enterprise X SME <input type="checkbox"/> Academic <input type="checkbox"/> Research institute <input type="checkbox"/> Public Body <input type="checkbox"/> Other:
Former participation to FP European projects? <input type="checkbox"/> Yes <input type="checkbox"/> No
Web address: www.sakowin.com
Description of the organisation: <p>Sakowin is a deeptech founded in 2017, specializing in the production of decarbonized hydrogen through methane plasmalysis and committed to the energy transition.</p> <p>Sakowin's solution is negative or neutral in CO2 emissions. It uses 5 times less electricity than electrolysis to produce the same amount of hydrogen at a competitive cost and does not consume water, a resource whose preservation is essential in the fight against climate change. The Sakowin equipment is compact, modular and stackable. This technological brick can be integrated into existing industrial and gas infrastructures, for on-site production, on demand, with a capacity that can be easily adjusted according to the sectors and facilities.</p> <p>The co-production of solid carbon (which can be used both economically and environmentally, for example in construction and agriculture) and the use of biomethane (which allows the production of hydrogen that is not only decarbonized but also negative in terms of CO2 emissions) make Sakowin a model of energy efficiency, circularity and sustainability.</p> <p>Sakowin was awarded the Deeptech label in March 2022 by Bpifrance, and is supported by the European Innovation Council. The company has already formed five industrial partnerships (EMPA in Switzerland, Ponticelli Frères, the ADF Group, AES DANA and Saint-Gobain) that will accelerate the development of its solution, and is aiming for around 15 partnerships by 2025.</p>
Experience and connections: <ul style="list-style-type: none"> - <i>Co-development programs around Sakowin's technology already in place</i> - <i>Part of France Hydrogen and Hydrogen Europe</i> - <i>EIC beneficiary (23/03/22 Cut Off) – BPI France Deep Tech Fund</i>

(*) Contact details

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(*) Do you entitle the French Cluster 5 NCP to publicly share the above mentioned information including your contact details?

Yes No

(*) Would you wish your expression of interest to be shared with other NCPs across EU member states and associated countries?

Yes No

If yes, any preferred countries / countries excluded?

(*) –Mandatory