

A.SPIRE & Processes4Planet Partnership

Climate neutral, circular and competitive European
process industry for a prosperous society

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PROCESSES4PLANET

**A co-programmed partnership under the EU R&I Funding Programme Horizon Europe
2021-2027**



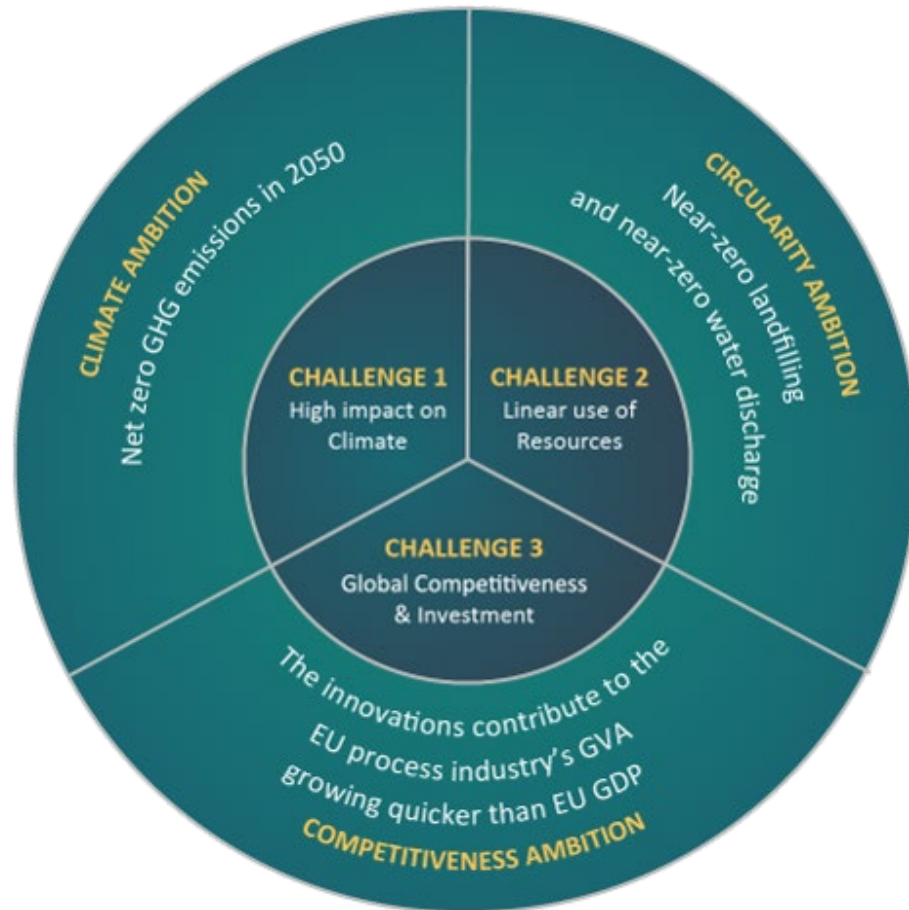
PROCESSES4PLANET

A.SPIRE
Association that
represents 10
industry sectors
+170 members

DG RTD
Commission's
Directorate-General
for Research and
Innovation

Co-programmed Partnership

MoU signed in 2021:
€1,3 bn exclusively for projects
27% more than in H2020



- **14 Innovation Areas**
- **36 Innovation Programmes**

Key levers and innovation areas:

**Industrial-Urban
Symbiosis**

Digitalisation

**Non-technological
aspects**

Process Innovation

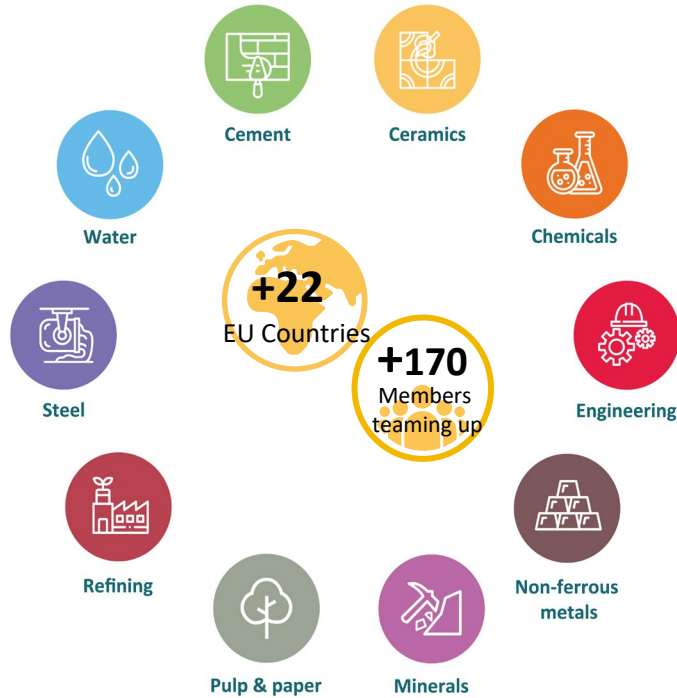
Electrification

CCU

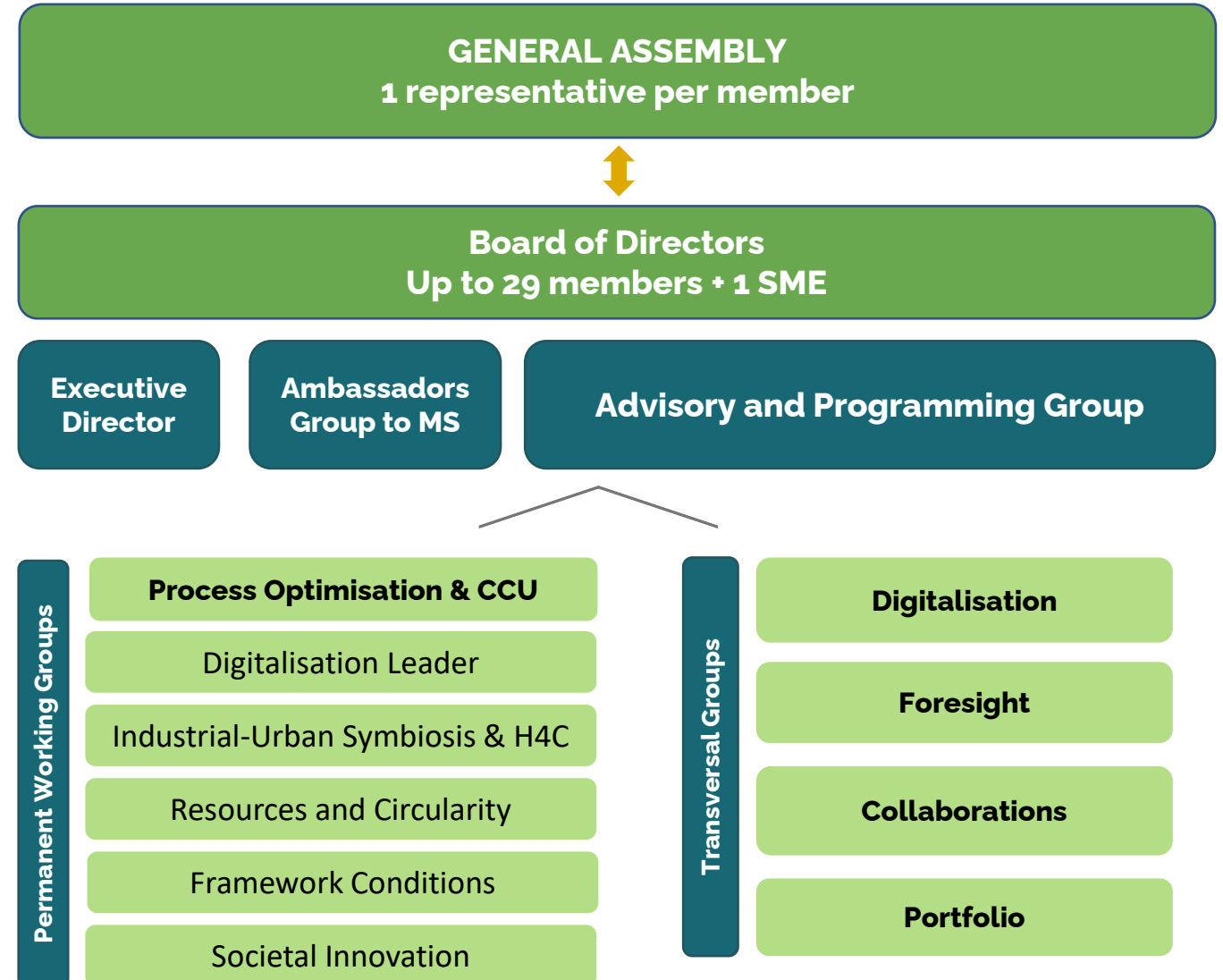
Energy mix

**Resources Efficiency &
Flexibility**

The A.SPIRE Association



Some of our members are:
Industries
SMEs
RTOs
NGOs
Innovation Agencies
...





**RAISING THE
COMMUNITY VOICE**
(Leaders)



**KNOWLEDGE
DEVELOPMENT**
(Co-creators)



**BUILDING R&I AND
BUSINESS**
(Sellers & Explorers)

- Led by 10 Process Industry sectors
- Cross-sectorial SRIA
- Team-up with innovation chain and value chain
- Influence and knowledge through the Public Private Partnership

Defining the EII JOINT R&I Agenda **Cross-sectorial approach**

- **SPIRE 2030 roadmap**
- **P4Planet 2050 SRIA**
- **Next for FP10 (2028-34)**

Defining topics/ text of the calls: Influence & knowledge through the EU Partnership

- **We work in cycles (2021-2022, 2023-2024, 2025, 2026-2027)**
- **A.SPIRE – EC negotiate text of topics.**
- **Text is agreed considering evolving priorities**
- **EC publishes calls**

A.SPIRE as driver and implementing partner: **Team-up with innovation chain and value chain**

- **Drive EII sectors innovation**
- **Obtain knowledge in advance**
- **Brokerage: find your partners**
- **Letters of support**
- **A.SPIRE in projects**
- **Project development helpdesk**

Some of the topics

2021

- Deploying industrial-urban symbiosis solutions for the utilization of energy, water, industrial waste and by-products at regional scale
- Hubs for Circularity European Community of Practice (ECoP) platform
- Plastic waste as a circular carbon feedstock for industry
- Design and optimisation of energy flexible industrial processes
- Ensuring circularity of composite materials

2022

- Circular flows for solid waste in urban environment
- Valorisation of CO/CO₂ streams into added-value products of market interest
- New electrochemical conversion routes for the production of chemicals and materials in process industries
- Integration of hydrogen for replacing fossil fuels in industrial applications
- Circular and low emission value chains through digitalisation

2023

- Energy efficiency breakthroughs in the process industries
- Electrification of high temperature heating systems
- Modelling process industry transition to climate neutrality, sustainability and circularity
- Hubs for circularity for near zero emissions regions applying industrial symbiosis and cooperative approach to heavy industrialized clusters and surrounding ecosystems
- Sustainable and efficient industrial water consumption: through energy and solute recovery
- Circular economy in process industries: Upcycling large volumes of secondary resources

2024

- Optimisation of thermal energy flows in the process industry
- Renewable hydrogen used as feedstock in innovative production routes
- Turning CO₂ emissions from the process industry to feedstock
- Hubs for circularity for industrialised urban peripheral areas
- Breakthroughs to improve process industry resource efficiency

- **71% (average) of P4Planet projects coordinated by A.SPIRE members**
- **31% average success rate**
- **55% of the funding envelop taken by IA projects (2021-23)**
- **Project partners from 39 countries**

Horizon Europe Work Programme 2026-27 (Draft)

HORIZON-CL4-2026-01-MATERIALS-PRODUCTION-04: Optimise the usage of resources in a circular economy

HORIZON-CL4-2026-01-MATERIALS-PRODUCTION-31: Efficient capture / purification / utilisation of CO₂ for the production of competitive products

HORIZON-CL4-2026-02-DIGITAL-EMERGING-53: Innovative AI methods and technologies for the process industries

**HORIZON-CL4-2026-01-CID-X1
R&I in Support of the Clean Industrial Deal:
Decarbonisation of energy intensive industries**

Clean Industrial Deal: The 2026 Flagship Call

- Higher TRL (7–8) – closer to implementation, focusing on pilot & demo scale
- Larger budgets
- Less prescriptive scope – more flexibility for industrial-led innovation pathways

Thank you!

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