



ERA
LEARN
2020

Session 4: Industrial Technologies

Name of network/organisation: A.SPIRE

Name of representative: Àngels Orduña (Exec. Director)

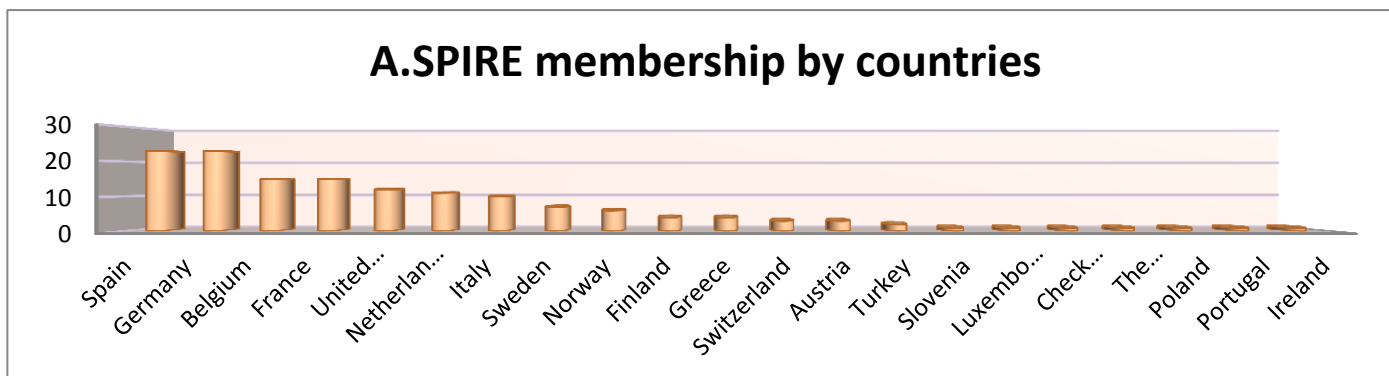
Annual Event on Public-Public Partnerships
8 November 2017

SPRE since 2014

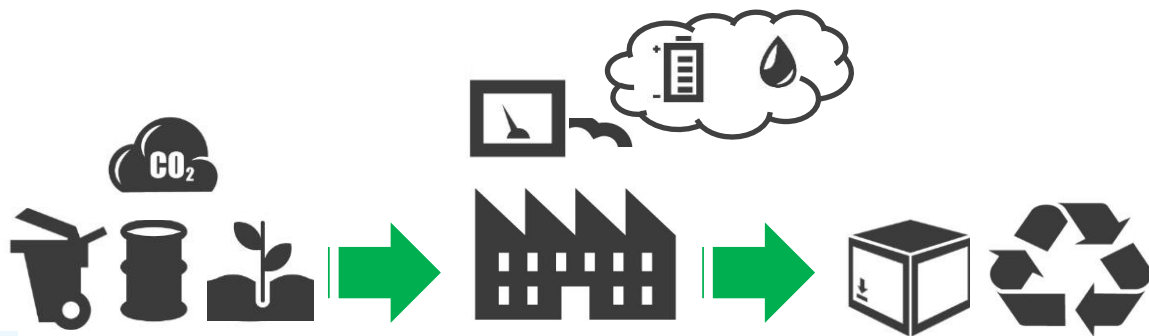
First cPPP on Sustainable Process Industry through Resource and Energy Efficiency



Membership type	
Associate member	11
Associations	15
Industry member (intermediate)	2
Industry member (large)	29
Industry member (medium)	3
Industry member (small)	13
Research member (large)	41
Research member (small)	32
Total	146

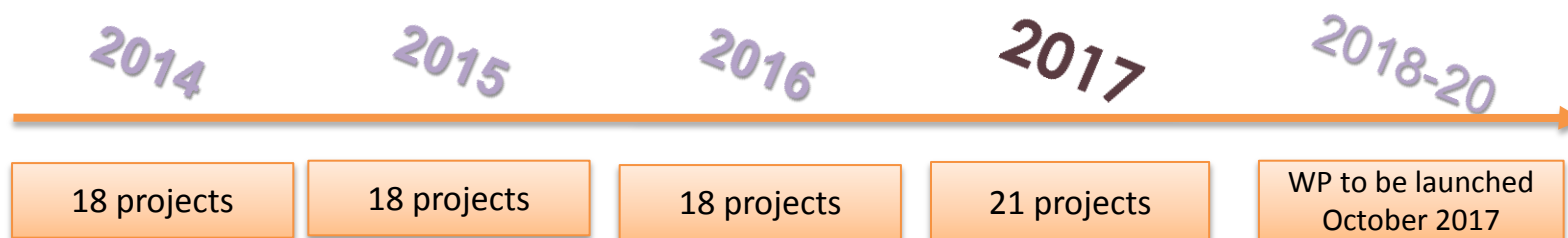


TO TOMORROW'S SCENARIO:



- **(Re)invent** feedstock (waste, bio, CO₂)
- **Reduce** emissions; **(re)invent** energy & resource management concepts, incl. industrial symbiosis
- **Introduce** digital devices for better monitoring and control
- **(Re)invent** materials for optimised processes
- **(Re)invent** processes & materials with a significantly increased impact on resource & energy efficiency down the value chain: transport, housing
- **Reduce** waste & **(re)invent** technologies for valorisation of waste streams within and across sectors

SPIRE Projects overview



72 ongoing projects + 3 finished = 75 SPIRE Projects
33 RIAs / 34 IAs / 8 CSAs

CARBON4PUR

SPIRE-08-2017 (Oct 2017 – Sept 2020)

Turning industrial waste gases (mixed CO/CO₂ streams) into intermediates for polyurethane plastics for rigid foams/building insulation and coatings

EXPECTED IMPACTS:

- Reduction of the CO₂ footprint of polyurethane production by 20-60%
- Substitution of at least 15% of the oil-based reactants by waste-gas based carbon.
- Green House Gas emissions reduction – 60% CO₂ eq.
- Saving 70% of process energy compared to conventional chemical processes