



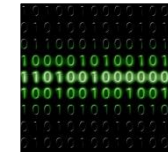
SPIRE and Catalysing the Circular Economy BROKERAGE EVENT

3-4 October 2017

PLASTMIX

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ORGANIZATION/COMPANY



SYSTEMS

ICT
Automation
Biomedicine

MECHANICAL ENGINEERING



Mechanical Design
Materials



ENERGY

Energy Efficiency
Renewable Energy
Smart Cities

AGROFOOD AND SUSTAINABLE PROCESSES



Environment
Chemical Processes
Agrofood
Laboratories



ROBOTICS AND WACHT

Mobile Robotics
Technology Watch

PROJECT IDEA

- Innovative **process** for recycling EPS buildings waste for the effective recovery of EPS beads. EPS beads are the raw material necessary in the production of new EPS materials.
- Demonstration EPS recycling plant with capacity of 500 kg/day, unique throughout Europe
- Design of eco-innovative **products** made from recycled EPS, validating and demonstrating their quality and properties in an industrial sector.
- New **business models** and exploitation plan to improve economic viability of recycling process

PROJECT IDEA

- Other chemical recycling of plastic wastes
 - Flexible **polyurethane foams** (i.e. from car seats) → glycolysis to obtain polyol with high quality, polyol/PUR = 80%
 - Rigid **polyurethane foams** (footwear sector) → glycolysis to obtain polyol with high quality, polyol/PUR = 50%. 20% of recycled polyol can be used to manufacture again shoe soles with the same properties
 - **PET** waste (post-consumed, multilayered, strongly colored, etc.) → glycolysis to obtain BHET with a purity of 98% and yield of 80%.
 - Film **PE** waste → fluidized bed pyrolysis to obtain gases, in particular methane and ethylene.
 - **Carbon fibre composites** from aeronautic sector → fluidized bed pyrolysis, 85% resin remove.

PROJECT IDEA

Key component/key action in Spire Roadmap

4. WASTE2RESOURCE

KA 4.2: Technologies for separation, extraction, sorting and harvesting of gaseous, liquids and solid waste streams

KA 4.3: Technologies for (pre)treatment of process and waste streams (gaseous, liquids, solids) for re-use and recycling

Horizon 2020 call topic addressed

CE-SPIRE-10-2018: Efficient recycling processes for plastic containing materials (IA)

EXISTING PROJECT CONSORTIUM

ROLE	TYPE
PACKAGING MANUFACTURER	INDUSTRY
SPARE PARTS MANUFACTURER	INDUSTRY
FOOTWEAR MANUFACTURER	INDUSTRY
CONSULTANCY	SME
FOOD SUPERMARKET CHAIN	INDUSTRY
3 TECHNOLOGY PROVIDERS	RESEARCH & TECH
OTHER	

CONTACT DETAILS



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