



Carbon4PUR

SPIRE-08-2017

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

Aim:

The EU process industry needs to become less dependent of fossils as source of carbon, and – at the same time – to reduce the greenhouse effect by decarbonizing the economy. Carbon4PUR will tackle the two challenges at the same time by transforming steel mill gas streams of the energy-intensive industry into higher value intermediates for market-oriented consumer products.

Concept:

The industrially driven, multidisciplinary consortium aims at achieving the goals of the EU Horizon 2020-SPIRE-8-2017 call by focusing on the development and demonstration of a new flexible technology for the production of value-added chemicals, polyester polyols, of carbon derived from steel mill gas. Both the consortium and the work are organized along the full value chain starting with the provision and conditioning of industrial emissions from a steel to a chemical company in line with the concept of industrial symbiosis, going through the transformation into chemical building blocks which will be further transformed into polymer intermediates and flow into desired sustainable polyurethane applications of rigid foams and coatings.

Start date:

01/10/2017

End date:

30/09/2020