

CONTRIBUTIONS TO A CIRCULAR ECONOMY

CASE STUDY
RECYCLING #3

POLYSTYRENE LOOP

- Major industry investment in innovative and entrepreneurial technology to recycle insulation foam waste and generate recycled raw material
- Supported by the EU Life program
- In partnership with industry associations, businesses and NGOs
- Plant due to start operation in 2018



DESCRIPTION

With the support of EU LIFE, the EPS supply chain has invested in an innovative and entrepreneurial technology called PolyStyreneLoop. The Foundation's key project is to build and to operate a large-scale demonstration plant that provides a sustainable, closed-loop route for the recycling of polystyrene (PS) insulation foam waste and for the recovery of bromine. The planned demonstration plant will be built at the ICL-IP site in Terneuzen, and will work with a physio-chemical polymer dissolution process, like the CreaSolv® Technology and should be operational in 2018, with the capacity to handle 3000t/yr of PS foam waste.

As a result of this commitment, the EPS industry, represented by its stakeholders along the value chain, is proving the case for a clean, effective and sustainable circular economy initiative. Thus, the industry is developing a non-toxic EPS material cycle so that recycled waste can be used as a major and reliable source of raw material.

CONTRIBUTION TO CIRCULAR ECONOMY

The PolyStyreneLoop Foundation is a non-profit organisation, funded by the EPS supply chain and focussing on the operational implementation of a circular economy.

The initiative represents a great opportunity for other sectors to benefit from the learnings and experience of the EPS industry as 'first-movers' from a CE perspective and to help introduce similar transitions across other parts of the plastics industry towards a circular material flow economic model.

PARTNERS

EUMEPS, Fraunhofer IVV, ICL IP, IVH, Stybenex, Sunpor Kunststoff GmbH, Synbra Technology bv, Unipol Holland BV.

DeVries Recycling (NL), ECOFILL Recycling (BE), Fischer Gruppe (D), Isobouw (NL,D), KRAS Recycling (NL), Total (FR), Unidek (NL), Suez Recycling (NL/FR), Synthos (PL)

“The PolyStyreneLoop project will demonstrate how the polystyrene value chain meets the fundamental requirements of a circular economy, by ensuring a technically, economically and environmentally sustainable closed-loop recycling system.”

Jan Noordegraaf, Director PolyStyreneLoop Foundation