Di-Plast: Digital Circular Economy for the Plastics Industry

Di-Plast develops and implements tools that enable complete documentation and quality assurance of recycled plastics material (rPM) flows. Parameters are quantity, production period, origin, composition and quality of the rPM. Users thus have a secure information base for their production planning. The digital tools are to be tested and refined in four pilot projects.

Background

The use of rPM is far behind its potential. Recyclate use in the industries with the highest plastics demand—packaging and construction—is less than 10% and 20%. Barriers to more rPM uptake are: unclear recyclate quality, unstable supply, low awareness. The consequences are dependence on volatile markets and heavy stress on the environment**.**

Catchphrases

Circular economy, digitisation, quality assurance, plastics recycling

Focus

The entire supply chain for recycled plastics—companies, clusters and associations that cover parts of the value chain (source, collection, processing, compounding, use) participate in the project.

Aims

Development of a digitally validated quality control system for rPM. End-to-end tracking of the material flow during uptake of recycled plastics. Distribution of the system in North West Europe. Continuously increasing number of participants from all tiers of the value chain lead to a constantly increasing uptake of recyclates and better supply to the customer market with rPM through guaranteed quality.

Added value for participating companies and stakeholders

Participation in the development of the quality control system and consideration of specific needs. Pioneering in large-scale and high-quality uptake of rPM ensuring a first mover role. Pilot companies benefit directly from the project outcome. Participation at low costs through innovation vouchers.

Project partners

(1) Wuppertal Institut für Klima, Umwelt, Energie gGmbH, Germany (Lead partner)
(2) Ontwikkelingsmaatschappij Oost Nederland NV, Netherlands
(3) SKZ - KFE gGmbH, Germany
(4) Stichting Katholieke Universiteit Brabant, Netherlands
(5) Stichting Polymer Science Park, Netherlands
(6) Umwelttechnik BW GmbH, Germany
(7) University of Luxembourg, Luxemburg

Contact persons

Germany
Dr. Holger Berg, Wuppertal Institut
E-mail: holger.berg@wupperinst.org
Tel.: +49 202 2492-179

Netherlands
Martijn Kerssen, Oost NL
E-mail: Martijn.Kerssen@oostnl.nl
Tel.: +31 6 108069-76

Luxemburg
Prof. Dr.-Ing. Peter Plapper, Uni Luxemburg
E-mail: peter.plapper@uni.lu
Tel.: +352 466644-5804

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