

CONSORTIUM

TNO innovation
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plast2bcleaned



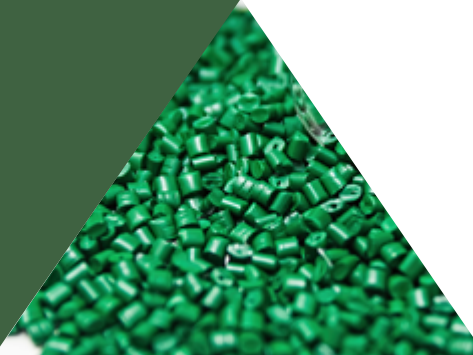
plast2bcleaned

www.plast2bcleaned.eu



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N°821087

PL^{♻️}ST2b
CLEANED^{♻️}



OBJECTIVES



Development of a mechanical presorting technology based on LIBS and Raman spectroscopy in order to separate the HIPS and ABS fractions



Closing the polymer loop
Closing the bromine loop
Closing the antimony trioxide loop



Prototype demonstration and integration of the developed technology into a practical WEEE recycling system.



Demonstration of the feasibility of the concept by tested application of recovered ABS polymer in a plastic to be used in an electronic product for the European market.



Acceptance of the technology by performance of economic and environmental assessment.

ABOUT

The overall aim of PLAST2bCLEANED is to develop a human and environmental safe recycling process for Waste Electrical and Electronic Equipment (WEEE) plastics in a technically feasible and economically viable manner.

Key technologies developed within the project are:

- Improved sorting of HIPS and ABS
- Dissolution of WEEE plastics in superheated solvents;
- Separation of additives to concentrate BFR and ATO fractions for recycling;
- Energy efficient recovery of solvent and of polymer.

IMPACTS



Increased purity and/or desirable quality of secondary raw materials.



Increased recycling rate for secondary materials and reduced landfill and incineration of wastes.



Reduced risk of retaining hazardous substances in recycled materials.



Implementation of the EU Circular Economy Action Plan and the 7th Environment Action Programme.



The Commission Strategy on Plastics in a Circular Economy and to the implementation of the SPIRE PPP Roadmap.