Technology

Critical metal and mineral recovery process

Client

ACCUREC® RECYCLING GMBH

Description

Interlinked research and innovation areas for an improved, resource-efficient recycling of polymer and raw materials from electrical and electronics equipment.

Objectives

- To report positive environmental impact derived from using the recycling and upgrading methodology, to reassure their appropriateness. To ensure the final user their efficiency and to help an easier/larger market access, facilitating the use at European level,
- To calculate total costs of products and processes to optimize them, select the best options in economic terms, decide if they are economically feasible to bring them to the market and determine their market value.

Activities

- Sustainability assessment:
  - Life-Cycle Assessment LCA,
  - Life-Cycle Costing LCC,
  - Techno-economic and environmental assessment,
- Market uptake:
  - Cost benefit analysis.

Challenges

- Input data complex to collect
- Technical knowledge required
- Legal & legislation barriers
- Technology readiness level

Added values

- - 50% losses from waste treatment,
- 80% recovery yields from WEEE plastic input,
- 20% share of recycled plastic in new electronic equipment,
- Minimisation of hazardous compounds level.

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