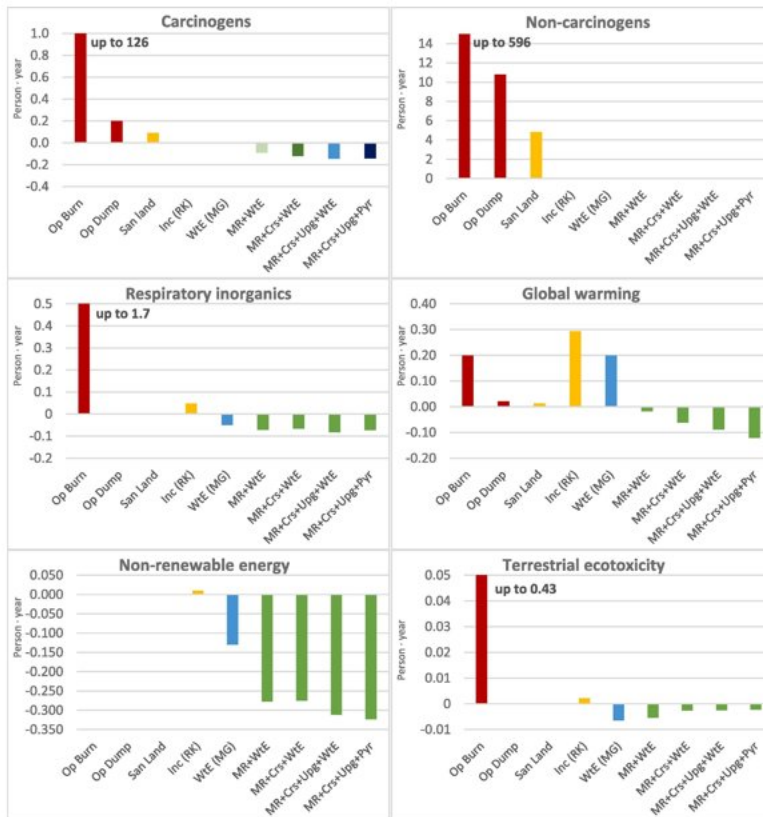


How to enhance the environmental sustainability of WEEE plastics management: An LCA study (2021)



Normalized results for the single treatments of WEEE mixed plastics for the most relevant impact categories.

Results are reported for 1 t of WEEE mixed plastics.

Op Burn = Open burning; *Op Dump* = Open dumping;

San Land = Sanitary Landfilling;

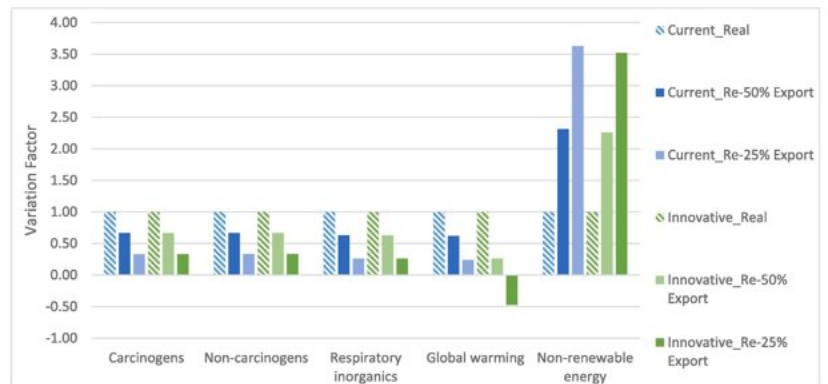
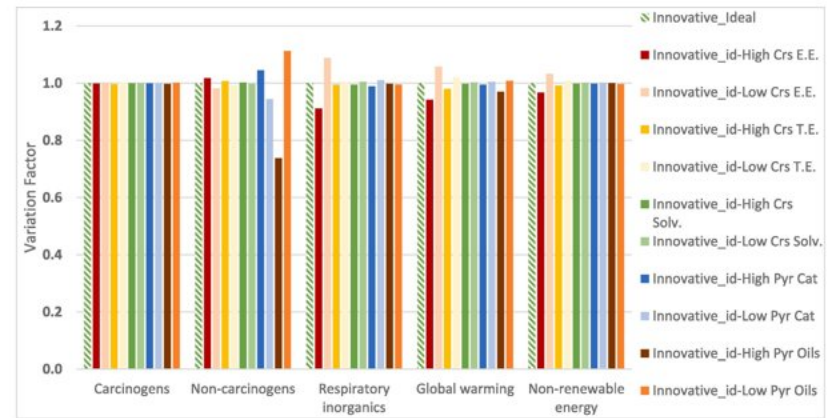
Inc (RK) = Incineration in Rotary Kiln;

WtE (MG) = Energy Recovery in Moving Grate;

MR = Mechanical recycling;

Crs = CreaSolv® Process;

Upg = Plastic Upgrading; *Pyr* = Catalytic Pyrolysis



Results of the sensitivity analysis, in terms of variation factor, for Innovative Ideal (top) and Innovative Real (bottom) scenarios.

- *Innovative_id-High/Low Crs E.E.* (CreaSolv® Process electricity consumption, +/-25%);
- *Innovative_id-High/Low Crs T.E.* (CreaSolv® Process heat consumption, +/-25%); *Innovative_id-High/Low Crs Solv.* (CreaSolv® Solvents consumption, +/-25%);
- *Innovative_id-High/Low Pyr Cat* (Pyrolysis catalyst consumption, +/-25%);
- *Innovative_id-High/Low Pyr Oils* (Pyrolysis Light crude oil yield: from 76% to 85% or 72%);
- *Innovative/Current_Re-50 or 25% Export* (Exported WEEP: from 75% to 50% or 25%)