

Life ECOMETHYLAL

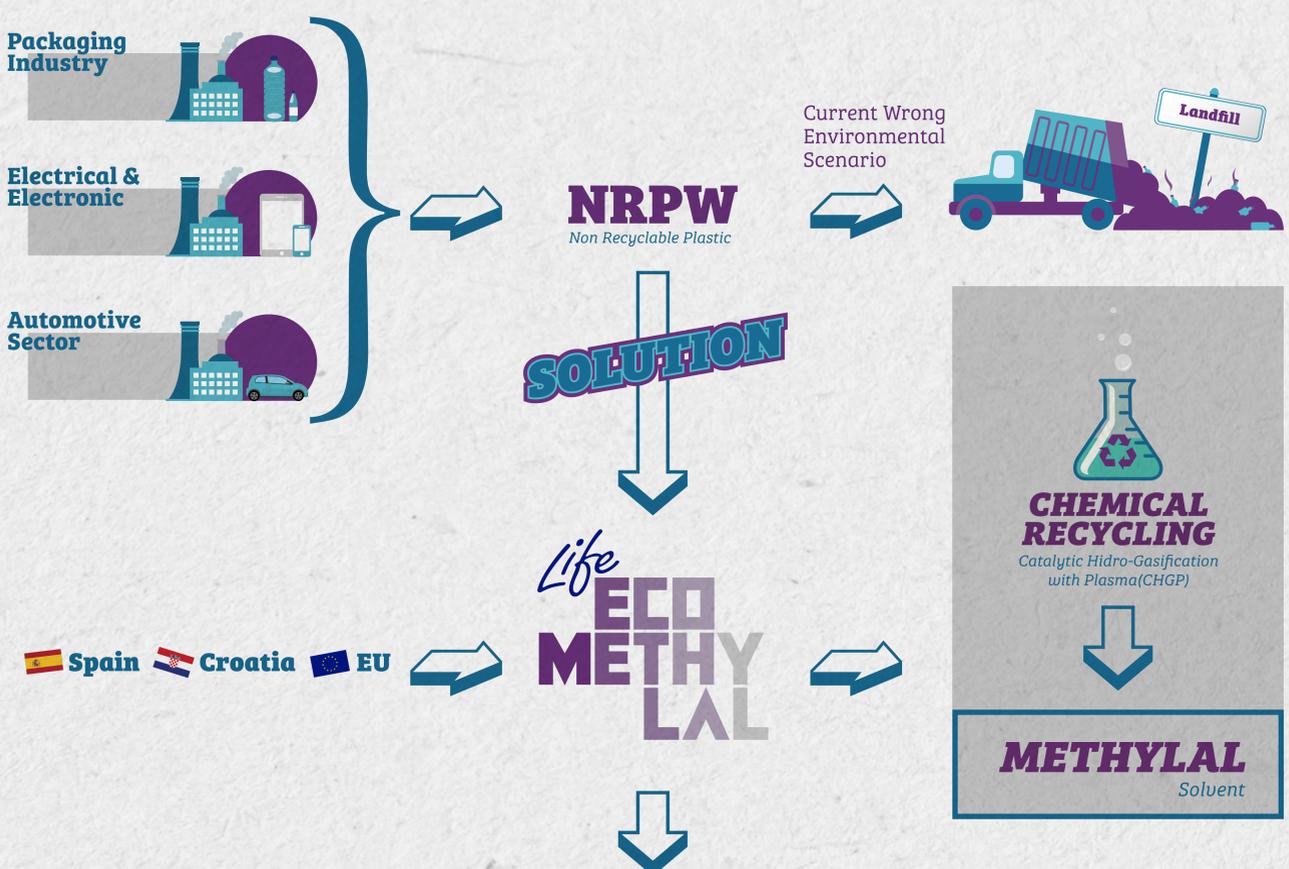
High quality methylal from non-recyclable plastic waste by an improved Catalytic Hydro-Gasification Plasma (CHGP) process.

LIFE ECOMETHYLAL will test the valorisation of NRPW that is currently landfilled –especially heterogeneous plastic waste– using Catalytic Hydro-Gasification with Plasma (CHGP), a more environmentally friendly technology than the ones currently used. The project will recycle NRPW from the automotive, electric-electronic and packaging sectors to produce a valuable chemical agent called methylal.

The market for methylal is estimated to be worth about €5.2 billion/year. It is used in various industries due to its low toxicity, low viscosity and especially its high solvent power making it a sustainable alternative to petrol-based solvents. Therefore, **the project addresses two major problems: the recovery of difficult plastic waste and the dependency on fossil fuel-derived materials.**

The proposed technology, which has not previously been used for treating NRPW, will be demonstrated at a pilot plant initially installed in Spain. **The plant will operate continuously, increasing efficiency and reducing energy consumption.** This plant will then be delivered and **implemented in Croatia** to test its replicability potential, **which should be high due to its compact and modular configuration.**

The methylal produced will be marketed as an eco-material in various sectors (e.g. plastics, chemicals and automotive). **LIFE ECOMETHYLAL will contribute to the implementation of the Roadmap for a Resource-Efficient Europe, the Action Plan for the Circular Economy and the European directives: Packaging and Packaging Waste; Waste Electrical & Electronic Equipment; End-of-Life Vehicles; Waste Framework; and Landfill of Waste.**



EXPECTED RESULTS

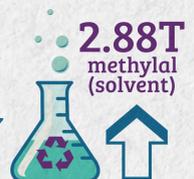
REDUCTION OF NRPW IN LANDFILL ⇒ NEW ECOPRODUCT COMMERCIALIZED



-3.6T plastic waste

⇒ **Reduction of around 3.6 tonnes plastic waste sent to landfill, accounting for 0.28 tonnes CO₂ eq. or more than 304 MJ eq. per pilot plant during the project period.**

⇒ **Production of 2.88 tonnes methylal through waste resources (thus saving virgin fossil resources), leading to a reduction of 2.07 tonnes CO₂ eq., more than 107 300 MJ eq. per pilot plant.**



2.88T methylal (solvent)



⇒ **Improved economic and environmental efficiency of the recycling companies in order to achieve EU zero waste targets (thereby improving competitiveness).**

⇒ **A replicable strategy for recovery of plastic waste in other EU countries.**



⇒ **Implementation of a cleaning process for plastic recovery.**



COORDINATOR



PARTNERS



DURATION 01_SEP_2016 to 31_AUG_2019 TOTAL BUDGET 2,039,142.00 € EU CONTRIBUTION 1,031,678.00 €



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