

Request for industrial partners (26/10/2018)

Project title: **Plastic to Precious Chemicals**

Acronym: P2PC

Project ID	
Type	ICON
Period	2 years
Starting date	April 2019
Total project budget (€)	TBD
Total man months	TBD
Subsidy percentage	According to SBO- and O&O regulations
Amount of subsidy (€)	TBD
Coordinator	TBD
Industrial partners	Current partners not disclosed at the moment
Executing partners	TBD

Project description

**Reference Situation**

Pyrolysis oil obtained via thermo-chemical processing (cracking) of waste plastics is a complex blend of hydrocarbons of different chemical families such as alkanes, alkenes, naphthenics and aromatics. The oil is a mixture of branched and linear hydrocarbons of different chain lengths, partly having double bonds. Finally the pyrolysis oil also contains impurities with oxygen, halogens, sulfur and nitrogen in the molecules.

A conventional processing train for upgrading pyrolysis oil to attractive chemicals consists of different steps such as cracking step, separation steps (eg fractionation), hydrotreatment and others, processing naphtha and a hydrocarbon fraction with a higher carbon number range.

**Research Target**

The present research project aims to systematically investigate optimisations compared to the reference situation, that

1. yields higher value materials and chemicals,
2. increases the overall value of the product mix as per ton of feedstock,
3. is more efficient delivering a better economic performance in terms of cost.
4. is greener than the currently established upgrading steps (eg optimizing carbon footprint of the process as a whole,
5. delivers process with minimal safety risk

## Request for partners

To complete the consortium, Catalisti is searching for additional industrial partners interested in subsequent use of interesting subcategories of materials are welcome:

- tuned qualities/applications of naphtha, oils, lubes and waxes, surfactants
- use of aromatic hydrocarbon fraction
- use of specific unsaturated hydrocarbons

Also partners with process know-how that have large scale expertise in:

- upscaling and product development and product safety
- adsorption/desorption, (regarding both materials as processes)
- fractionation by distillation and/or crystallization on large scale
- bulk derivatization to make intermediates for easy separation

*Important notice: To be eligible to receive funding from Catalisti in Catalisti-supported projects, industrial partners must be (at least) project member of Catalisti. For more information on membership and membership fees, please visit our website (<http://catalisti.be/membership-2/>).*

## How to reply to this request

Please send an **email** before **November 12<sup>th</sup> 2018**, 12:00 PM (noon) to [kvanwesenbeeck@catalisti.be](mailto:kvanwesenbeeck@catalisti.be), and **briefly describe your interest and potential contribution** to the project. Based on all offers, the current industrial partners will determine together with Catalisti which partners can join the consortium. After submission of your offer, you can be contacted by telephone to further elaborate your offer. The decision will be communicated the latest on November 16<sup>th</sup> 2018. **Please already tentatively reserve time on November 19th 2018 (afternoon) in your agenda for a meeting with the initiating companies.** Please contact Karen Van Wesenbeeck ([kvanwesenbeeck@catalisti.be](mailto:kvanwesenbeeck@catalisti.be); +32(0)472 81 63 97) for any further questions you might have related to this request.