

Request for industrial partners (March 25th, 2019)

Project title: Removal of titanium dioxide and other colorants in the recycling of plastics

Acronym: Remove2Reclaim

Project ID	
Type	ICON
Period	3 years
Starting date	2019
Total project budget (€)	TBD
Subsidy percentage	According to SBO- and O&O regulations
Catalisti contact	Karen Van Wesenbeeck

Project description

Introduction

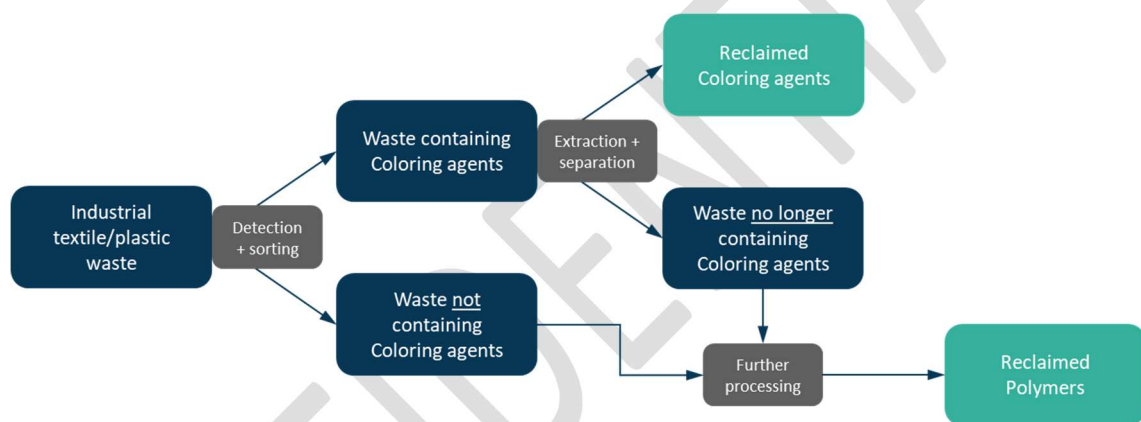
Within the textile and plastics converting industry, producers are often confronted with not only their own production waste, but also with waste material returning from the market. This waste material typically contains colorants and other additives, depending on its original function. These unwanted substances can hamper the recycling and have a negative influence on the market value of the recycled polymers. Colorants in particular can lead to discolored recycled material, which can only be used in grey and black applications. There is clearly a need for detection and extraction technologies that are able to remove the colorants, without going to full chemical depolymerization, and thus reclaiming the polymers and preferably also the colorants.

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Goal

The goal of this project is to:

- develop methods to detect specific colorants – with special focus on TiO_2 – in specific polymer matrices like PVC and polyolefins from different waste streams (post-production, post-industrial and/or post-consumer);
- develop a sorting mechanism to distinguish between waste streams with or without the specific colorants;
- develop innovative extraction techniques tailored towards the specific colorants;
- check the further applicability of the reclaimed TiO_2 ;
- perform further processing of the reclaimed polymers (free from colorants) into high quality and functional polymers.



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Expertise

To complement the current consortium, Catalisti is searching for:

- Companies active (or aspiring to be active) in the use and/or recycling of TiO₂ containing polyolefin waste streams, and that want to implement innovative extraction technologies to reclaim this valuable pigment;
- Companies active in the use and/or recycling of TiO₂ containing PVC (waste) streams (outside the field of profile extrusion for the window & door business);
- Companies with know-how in development of sensor/detection equipment in different kinds of set-ups and for different kinds of (an)organic substances specifically in polymer matrices;
- Companies having expertise in recycling of PVC and/or polyolefin waste streams.

Partners that wish to participate in Catalisti-supported projects, are required to be Member of Catalisti. For more information on membership, membership fees and Catalisti procedures, please do contact Karen Van Wesenbeeck (kvanwesenbeeck@catalisti.be).

How to reply to this request

Please send an **email** before **April 8th, 2019 (12h00)** to *Karen Van Wesenbeeck* (kvanwesenbeeck@catalisti.be) with lgarciagonzalez@catalisti.be in CC, 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 email or telephone to further elaborate your offer. The decision will be communicated in a period of 1-2 weeks after the closing date of this RfP but could take longer depending on the number of applications.

If you have questions concerning this Request for Partners, do not hesitate to contact *Karen Van Wesenbeeck* (kvanwesenbeeck@catalisti.be or +32 472 81 63 97).

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