

## Request for knowledge partners

(September 9<sup>th</sup>, 2019)

Project title: Post-Consumer PVC Boosted with Additives

Acronym: PoCoPAdd

Project ID	
Type	ICON
Period	2 years
Starting date	January 2020
Subsidy percentage	According to SBO- and O&O regulations
Catalisti contact	Isabelle Monnaie

### Project description

#### Introduction

The recycling potentials of post-consumer PVC are to a large extent determined by differences in the degree of contamination, i.e. the degree to which PVC is mixed with other materials when collected and the differences in the composition of the collected PVC material itself. As for the latter, it has to be taken into account that a PVC product does not consist of pure PVC but of PVC compounds which contain different quantities of additives such as plasticizers, fillers, stabilizers. The degree of contamination in turn determines the achievable quality of recyclates, often yielding a low-quality recyclate. To upgrade recyclates to the desired property profile, additives are mandatory. However, additives available on the market for post-consumer PVC are unable to increase the performance of post-consumer PVC up to the level of virgin PVC while at the same time the dose-response mechanism in a complex and varying matrix is unknown. This limits the use of post-consumer PVC in PVC applications.

#### Goal

The goal is to investigate and develop new additives that improve both the processing of mechanically recycled PVC and its final product properties. Through understanding of the physicochemical interaction between the additives and the PVC matrix, new insights in the relationship between additives types and dosage to PVC processability behavior and final material properties will be gathered. This will enable a smarter use of additives while increasing the amount of recyclate in current materials production and potential new high-performance products.

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## Expertise

With this Request for Partners, we would like to invite **universities/knowledge institutes** that have expertise, technology or knowledge relevant to the project to respond to this request.

To reach the project goals, the consortium is particularly searching for the following (non-limitative) expertise:

- Physicochemical characterization of PVC
- Chemical analysis of rest-components present in PVC recyclate
- Impact of additives/functional groups on material properties
- Impact of additives on flow behavior and link to processability
- Simulation of extrusion processes to predict (to a certain extent) the extrusion parameters/performance
- ...

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## How to reply to this request

Please send your **proposal by email** before **September 23<sup>rd</sup> (12h00)** to your association representative (see contact list below). An application (2-3 pages without attachments) should contain at least the following items:

1. Organisation and research group
2. Name and contact details of person submitting the proposal
3. Name and contact details of person(s) who will perform the actual tasks (if different from submitting person)
4. A proposal of your role in the project: for which expertise/assignments described above do you apply?
5. A description of your expertise/track record in the specific topic of this RfP, for which you are applying (at the 3 organisational levels as mentioned above, i.e. for the organisation and/or research group, for the person submitting the proposal, as well as for the executing person(s)) (preferably give the resumes of submitting and executing persons attached)
6. A description of your experience in carrying out similar assignments as those described in this Request for Partners (again at the 3 organisational levels)
7. A list of relevant funded projects (Catalisti, VLAIO, EU, ...) where you were a coordinator or partner
8. A commitment to prepare a full project proposal by November 2019 together with the other project partners.

### Contact List

- KU Leuven: Bert Lagrain ([bert.lagrain@kuleuven.be](mailto:bert.lagrain@kuleuven.be));
- UAntwerpen: Ann Aerts ([annfb.aerts@uantwerpen.be](mailto:annfb.aerts@uantwerpen.be));
- UHasselt: Lieve De Doncker ([lieve.dedoncker@uhasselt.be](mailto:lieve.dedoncker@uhasselt.be));
- UGent: Elisabeth Delbeke ([elisabeth.delbeke@ugent.be](mailto:elisabeth.delbeke@ugent.be));
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- Other: Isabelle Monnaie ([imonnaie@catalisti.be](mailto:imonnaie@catalisti.be))

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## Evaluation

The industrial partners, together with Catalisti, will review all proposals obtained before the deadline mentioned above. The industrial partners will make a selection of the best proposals based on the following criteria:

- your expertise in the requested expertise domain (5pt)
- your experience in carrying out similar assignments (3pt)
- your experience in other relevant funded projects as a coordinator or partner (3pt)
- complementarity with the other executing project partners (4pt)

After submission of your proposal, you can be contacted by telephone or invited to a live meeting (if this is deemed necessary by the industrial partners) to further elaborate your offer. *(Please note that the selection will be made primarily based on your written proposal, so please be complete and thorough, without anticipating on a further (live) elaboration of your proposal.)*

The final decision will be communicated at the latest on September 27<sup>th</sup>.

The first consortium meeting is foreseen on Monday September 30<sup>th</sup>, 14.00-16.30. Attendance of at least one representative is required in case you are selected to join the consortium.

Please note that the initiating project partners have opted to cooperate with an external consultancy firm for the preparation and writing of the complete project proposal. This decision will be applicable to all joining partners.

**Please do contact Isabelle Monnaie ([imonnaie@catalisti.be](mailto:imonnaie@catalisti.be), +32 (0) 471 506 833) if you have any questions concerning this RfP and the Catalisti procedures in general.**