

Request for industrial partners (26/10/2018)

Project title:

Lightweight rotomoulded parts complying with the flame retardant requirements for Transportation (e.g. EN45545 for railway) or Building & Construction (e.g. Euroclass)

Acronym: ROTO

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

Context

Polymer transformation technologies like blowmoulding, blown film and sheet & film extrusion, have made the transition from mono-layer to multi-layer parts in the 70's and 80's. This transition was needed as 1 material solutions could not comply with the always increasing performance requirements of the market. For technical reasons, rotational moulding missed this revolution and continued to focus on mono-layer parts with lower added value.

The robotisation of rotational moulding and its direct tool heating & cooling revolutionises the rotational moulding process. It is now also possible to produce multi-layer parts with rotational moulding. This allows to overcome the intrinsic weaknesses of conventional rotational moulding and to take the full benefit of its strengths.

Research Target

The project aim is double. First of all the project wants to investigate the impact of the innovation in heating and cooling on the material properties of the parts produced and hence determine the processing limits of the process. On the other hand the projects wants to explore new applications for which the process can combine light weight structures with functional layers.

Safety regulations are becoming more and more stringent in every industry. A good example is the new European regulation on flame retardancy for the Railway Industry (EN45545). The same evolution is seen in Building & Construction. Material technology exists to make PE and PP through compounding compliant with these regulations. Unfortunately, this is always done at the expense of the mechanical performance of the material. Multi-layer solutions are a way to overcome this and to fully comply with all the requirements for a functional part. Robotised rotational moulding is now well suited to produce such parts: combining function with light weight and strength.

Request for partners

To complete the consortium, Catalisti is searching for additional industrial partners with knowledge and experience in:

- Compound formulation and production
- Part design with flame retardant requirements
- OEM in Transportation or Building & Construction
- Flame retardant testing capabilities
- Polymer grinding capabilities

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 12th 2018**, 12:00 PM (noon) to 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 16th 2018. Please contact Karen Van Wesenbeeck

(kvanwesenbeeck@catalisti.be; +32(0)472 81 63 97) for any further questions you might have related to this request.