

Request for industrial partners (February 1<sup>st</sup>, 2019)

Project title: Enzymes for Added Selectivity & Efficacy 2

Acronym: EnzymASE 2

Project ID	
Type	ICON 2+2
Period	2 years
Starting date	2019
Total project budget (€)	TBD
Subsidy percentage	According to SBO- and O&O regulations
Catalisti contact	Johan De Houwer

## Project description

### Introduction

Enzymatically catalyzed reactions show some distinct advantages over chemically catalyzed processes. The combination of processing at relatively low temperature and the high (stereo)selectivity of enzymes due to their complex 3D structure results in a reduced amount of side products and thus simplified downstream processing. Additionally, challenging structures for chemical processing, thus very specific and/or complex molecules, can potentially be manufactured in a reduced amount of unit step operations. In Flanders, industrially applied biocatalytic processes are very limited and this project aims to further facilitate and broaden the pathway towards more sustainable industrial processing via enzymes, based on the results of the EnzymASE project.

During the EnzymASE project, 4 industrial partners and 3 academic partners studied a number of selected enzymatic processes to produce key intermediates in a selective and energy efficient manner, for applications like feed additives, coatings, adhesives, dispersants and diagnostic tools. Key lessons learnt during this 2-year project include selection and genetic engineering of micro-organisms with performant enzymes, process development for production of these enzymes and process development towards the use of both these novel enzymes and commercial enzymes to provide the targeted intermediate molecules.

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## Goal

The goal of the current follow-up project (EnzymASE 2) is to further elaborate on the applications within the EnzymASE project where a proof of concept was already achieved, to develop alternative enzymatic processes for the applications where a proof of concept was not yet achieved, and to expand the enzymatic toolbox towards novel applications beyond the scope of the EnzymASE project.

## Expertise

To complement the consortium, Catalisti is searching for (non-limitative):

- Companies that want to explore enzymatic processes (e.g. condensation, redox, hydrolysis, isomerization) to complement or substitute their current processes, that want to develop new enzymatic processes or that want to enhance their current enzymatic processes f.i. in terms of robustness or efficacy

Please note the following:

*Companies that wish to participate in this follow-up project will be requested to also sign (an addendum) to the original collaboration agreement of the EnzymASE project.*

*Companies that wish to participate in Catalisti-supported projects in general, are required to be project member of Catalisti. For more information on membership, membership fees and Catalisti procedures, please contact Johan De Houwer ([jdehouwer@catalisti.be](mailto:jdehouwer@catalisti.be)).*

## How to reply to this request

Please send an **email** before **February 15<sup>th</sup>, 2019 (12h00)** to Johan De Houwer ([jdehouwer@catalisti.be](mailto:jdehouwer@catalisti.be)) with [nverdonck@catalisti.be](mailto:nverdonck@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 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 Johan De Houwer ([jdehouwer@catalisti.be](mailto:jdehouwer@catalisti.be) or +32 468 32 25 57).

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