

# News and Events



# News

13 October 2015

# Collaboration between universities and businesses Utrecht leads European research into a new generation of catalysts



The European Union has set aside 3.3 million Euros for research into the development of cheaper and more sustainable catalysts for uses such as the clean production of fuels. The project, a Marie Curie Initial Training Network, was initiated by Utrecht University Prof. Bert Klein Gebbink and dr. Marc-Etienne Moret, who will also act as the project coordinators. The grant will enable the appointment of 13 doctoral candidates, who will work in a network of leading catalyst research organisations, including universities, research institutes and major international companies from eight European countries.

"This network is especially strong thanks to its synergy", explains Bert Klein Gebbink, Professor of Organic Chemistry and Catalysis at Utrecht University. "Both the academic and the industrial partners are active in various fields related to catalysis, so their fields of expertise complement one another and have the potential to result in cross-fertilization. For example, the Max Planck Institute for Chemical Energy Conversion is specialised in characterising catalysts, while the EPFL in Lausanne specialises in the development of catalysts based on nickel, and we are specialists in designing new oxidation catalysts. The industrial partners include the pharmaceutical companies AstraZeneca and AbbVie, as well as H2 Industries, which develops innovative solutions for energy storage, and DSM Research, which uses high through-put and flow instrumentation in the development of catalysts."

#### **ALTERNATIVE CATALYSTS**

The chemical industry uses catalysts for almost every production process in order to realise the highest possible production under the most favourable reaction circumstances, such as just the right pressure and temperature. However, the active ingredient in many catalysts is often a toxic and scarce - and therefore expensive - precious metal such as palladium, rhodium or ruthenium. The goal of this Marie Curie Initial Training Network is to find alternative catalysts based on less-toxic and more common metals, such as iron, cobalt or nickel.

#### ENTREPRENEURSHIP

An equally important goal is to train a new generation of researchers, so in addition to scientific excellence, the network also focuses on developing skills such as entrepreneurship. All of the doctoral candidates in the network will therefore conduct part of their research at one of the participating companies.

#### **START IN 2016**

The Non-Noble Metal Catalysis (NoNoMeCat) network will begin work on 1 January 2016. <u>Visit the website</u> for more information.

#### SUSTAINABILITY AT UTRECHT UNIVERSITY

This research is part of the '<u>Future Energy and Resources</u>' programme, which is in turn part of Utrecht University's strategic research theme Sustainability. In this programme, researchers from the faculties of Science and Geosciences work on the development of smart, sustainable materials for the generation, storage and conservation of energy on one hand, and on the more efficient use of existing sources of energy on the other. See the website for more information on the research theme <u>Sustainability</u>.

#### CONTACT

Please contact Monica van der Garde, Press Spokesperson, Faculty of Science <u>m.vandergarde@uu.nl</u>, 06 13 66 14 38.

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