

# **SOLAR2CHEM 1st NEWS**

**SOLAR2CHEM** is new Marie Sklodowska Curie Innovative Training Network (ITN) funded by the European Commission.

**SOLAR2CHEM** will train young researchers to fill the existing gap in the European industrial landscape in the area of solar chemicals production and usage in technical, economic and policy aspects.



SOLAR2CHEM's scientific aim targets the construction design and of photoelectrochemical (PEC) and photocatalytic using hybrid reactors transform photocatalysts to renewable resources such as sunlight, water, CO<sub>2</sub> and N<sub>2</sub> into solar chemicals including  $H_2$ ,  $H_2O_2$ , CH<sub>3</sub>OH and higher alcohols, NH<sub>3</sub>, and the transformation of organic substrates as key intermediates for the pharmaceutical industry



More information at <u>www.solar2chem.eu</u>

#### **SOLAR2CHEM** Research Objectives

**(RO1)** To prepare hybrid (hy-)photoanodes for selective oxidation of substrates (water, alcohols and alkenes);

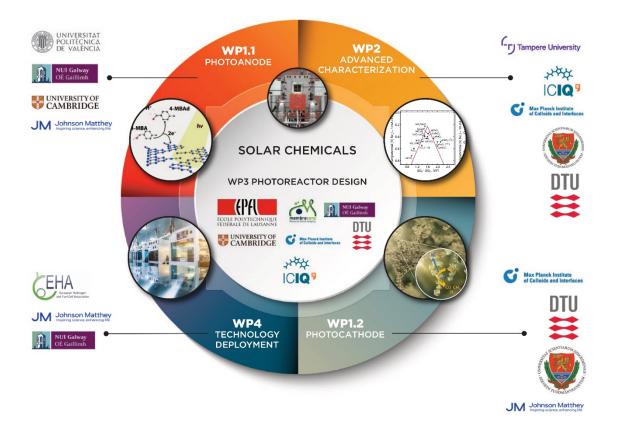
(RO2) To synthesise hy-photocathodes for H<sub>2</sub>, CH<sub>3</sub>OH and NH<sub>3</sub> production;

**(RO3)** To design hy-photocatalysts for simultaneous oxidation and reduction reactions of the targeted compounds;

**(RO4)** To fully study the photoelectrodes using advanced spectroscopic techniques and quantum chemical computations, such as ultrafast spectroscopy, 2D electron microscopy and x-ray synchrotron measurements;

**(RO5)** Design photoelectrochemical (PEC) and photocatalytic reactors combining the targeted photoelectrodes and photocatalysts, and optimise their performance for each chemical output; and

**(RO6)** Undertake a sustainability analysis to promote the technology at the European level and ensure an appropriate legal framework for its adaptation.



## **SOLAR2CHEM 1st Newsletter**





Dr Pau Farràs



Prof Núria López



Prof Csaba Jánaky



Prof Erwin Reisner



Prof Hermenegildo Garcia



Dr Peter Ellis



Prof Ib Chorkendorff



Prof Sophia Haussener



Marieke Reijalt



and the second

Prof Markus Antonietti



Prof Nikolai Tkachenko



Dr Jelena Stojadinovic



University of

Denmark







Johnson Matthey



5P5





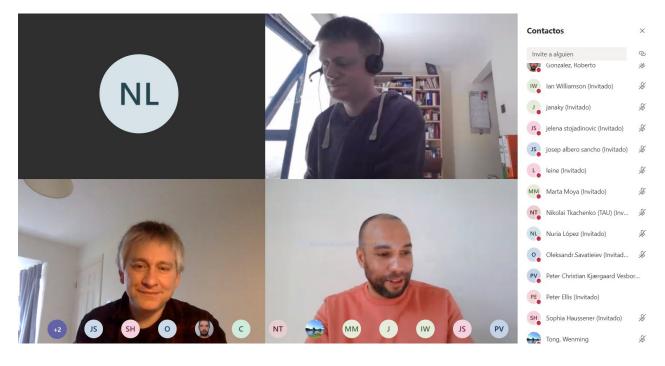
More information can be found at solar2chem.eu/consortium

### The project started in February 2020

We had a great plan for a kick-off meeting in Galway, Ireland, with the recruitment event for the ESRs.

However, COVID-19 appeared and we had to adapt to the current circumstances. Our first meeting went online on March 26<sup>th</sup> 2020 with an overview of the project and a comprehensive recruitment process for most of the ESR positions in SOLAR2CHEM.

More information on the selected ESRs will appear on the next newsletter, stay tuned!



The virtual meeting had the participation of all partners, but also representatives of partner organisations which will be delivering some of the transferable skills workshops.

A session with members of the Advisory Board served as introduction and setting the roles of its members.

The 2<sup>nd</sup> project meeting and 1<sup>st</sup> training workshops (*computational chemistry and public engagement*) will be online on November 4-6<sup>th</sup>.

## Stay updated! Solar2chem.eu/news-events