



**W**elcome to the fifth newsletter of ROMEO.

The project team is happy to start its **3<sup>rd</sup> year of work to implement an efficient platform for the optimal design of new integrated reactors.** Thanks to detailed understanding of the processes involved from nano to macro-scale, ROMEO will enable to set up adapted toolboxes by optimizing choice via modelling and simulation. Based on the use of building blocks, we are very much on the right track to facilitate the conception of apparatus for a large set of applications!

We just had a successful 2 days meeting in Waischenfeld, Germany. Partners from FAU warmly welcomed ROMEO's team in suitable working surroundings, where partners shared warming moments and fruitful discussions.

Technical issues related to the development of new monolithic membranes are overcome thanks to the close collaboration between partners from RWTH Aachen University, DTU, FAU, LiqTech Int., CSIC, Linde, Bioenergy2020+ and Evonik. The immobilization of ionic liquid catalyst systems on membranes optimizes their performance in the selected reactions. The model developed for ROMEO's membrane reactor module is now running and will be used to investigate the effects of various parameters. Parallel working group meetings enabled more in-depth discussions about the two respective democases (Hydroformylation and Water-Gas Shift reactions) as well as dissemination activities (supported by EMH).

We keep having good dynamics to win ROMEO's challenges!

As you can read in this 5<sup>th</sup> issue, we are also really happy to confirm that ROMEO is of international interest. Special thanks to Jürgen Loipersböck, Junior Researcher at Bioenergy 2020+ GmbH, who represented the project at the CCECP, Singapore.

You can find out more about Jürgen in this 5<sup>th</sup> issue of ROMEO's newsletter. You'll also get a glimpse into the daily working life of Jan, Development Engineer at Liqtech International in Denmark.

Please feel free to contact us via [ROMEO's website](#) should you have any question or comment.

Enjoy your reading,  
And don't forget to follow us on twitter! [@romeo123EU](#)

Prof. Robert Franke - Project Coordinator- Evonik

