



CE-SPIRE-04-2019

MACBETH

Membranes And Catalysts Beyond
Economic and Technological Hurdles

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Concept:

Previous EU-funded projects ROMEO, BIONICO and CARENA have laid a strong basis by showing the proof of concept for CMRs at TRL 5 for highly relevant and three large-scale processes: hydroformylation, hydrogen production, and propane dehydrogenation. Key members of these consortiums have joined forces in MACBETH to bring CMR up to TRL 7 and build the basis to move forward to commercialisation of the technology. To demonstrate the exploitation potential, MACBETH will extend the CMR technology to the field of biotechnology. Based on a large variety of already established building blocks (such as catalysts, membranes, support materials and reactor concepts) a demonstration plant for bio-catalytical oil cleavage will be developed, showing the commercial applicability of CMR in biotechnology for the first time. To take a further step forward and to extend the benefits of CMR technology to other sectors, the European Competence Centre 'Lighthouse Catalytic Membrane Reactors' will be established.

Start date:

01/11/2019

End date:

31/10/2024
