

Title: EnCO₂re - A Flagship Initiative for CO₂ Utilisation

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Polymers and chemicals made of CO₂ show the potential to reduce greenhouse gas emissions by saving fossil resources and realizing more environmentally benign production processes.^[1-3] In contrast to using plant based raw materials that took up CO₂ during photosynthesis, using CO₂ directly is technically even more challenging. However, technical progress in the field of catalysis demonstrated that conversion of CO₂ into various chemicals and polymers is viable.^[3]

EnCO₂re (Enabling CO₂ re-use) is an open innovation and market development programme for carbon dioxide re-use. The vision of EnCO₂re is to make CO₂ re-use happen at large scale through the establishment of new CO₂ value chains. EnCO₂re was initiated by Climate-KIC and is composed of European partners from industry and research sectors. The programme has a comprehensive approach towards CO₂ re-use and comprises analysis of CO₂ value chains, innovation projects on CO₂-based intermediates & polymers, sustainability analysis of such products and their business & market development. EnCO₂re connects technology leaders, academics and entrepreneurs. The holistic approach of the programme targets a constructive dialogue with scientists, industry, public stakeholders and policy makers in order to develop the necessary measures for implementing the re-use of CO₂ as feedstock for industry.

[1] N. von der Assen, A. Bardow, *Green Chem.* **2014**, 16, 3272-3280

[2] N. von der Assen, J. Jung, A. Bardow, *Energy Environ. Sci.* **2013**, 6, 2721–2734

[3] M. Hölscher, C. Gürtler, W. Keim, T. E. Müller, M. Peters, W. Leitner, *Z. Naturforsch.* **2012**, 67b, 961 – 975.