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CO₂ valorisation – new developments in Germany and Europe

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CO₂ from industrial point sources and air is available in abundance. As an alternative source of carbon CO₂ has the potential to replace substantial quantities of non-sustainable, fossil feedstocks in various industries. Cross-industrial collaborations and innovative CO₂ conversion technologies are key elements to define new industrial landscapes and business opportunities for Germany and Europe in the future.

The German Federal Ministry of Education and Research (BMBF) has been supporting the development of innovative technologies utilising CO₂ since 2010. With the funding measure “CO₂Plus – utilisation of CO₂ to broaden the raw material base”, BMBF funds 13 joint projects since September 2016. Topics come from the highly innovative fields “chemicals and polymers from CO₂”, “electro and photo catalysis” and “capture and separation of CO₂ from sources other than energy flue gases”. A new funding measure, dedicated to the utilization of CO₂ with an emphasis on further developments of the field “electro and photo catalysis” and especially on new approaches of “mineralisation and carbonation” will be announced and presented.

CO₂ valorisation is already of high interest or even a priority topic for various companies and European Members States with existing activities in countries such as Belgium, France, Germany, Spain and the Netherlands. In 2017 the European initiative “PHOENIX - Towards a European integrated approach to CO₂ valorisation” was started in order to unify current and future RD&I activities on national and European level under one umbrella. As a first step of implementation, the Phoenix initiative will work together with the European Commission to establish an “Important project of Common European Interest (IPCEI)”.