BIOCON-CO_2: Major New Project Aims to Convert CO_2 Produced by Industry into Valuable Commodities

Press Release: July 2018

BIOCON-CO_2, a new €7 million EU Horizon 2020-funded research project, has recently kicked-off with intentions of supporting EU leadership in carbon dioxide (CO_2) re-use technologies. **BIOCON-CO_2** aims to re-use excess CO_2 produced from the iron, steel, cement and electric power industries to create value-added chemicals and plastics. This will be achieved by developing a versatile range of conversion techniques using low-energy biological systems such as anaerobic microorganisms, aerobic microorganisms and enzymes to produce key chemical products including industrial acids and alcohols.

CO_2 is a naturally occurring greenhouse gas present in the Earth's atmosphere, trapping heat and contributing to global warming. While levels have fluctuated naturally over time, human activities have led to an exponential increase in levels of the greenhouse gas through actions such as the burning of fossil fuels for industrial production. Currently, CO_2 re-use from industry via biological processes is one of the most promising and valuable technological methods to reduce otherwise harmful human-induced CO_2 emissions. CO_2 re-use converts CO_2 produced by industry into a potentially valuable commodity as opposed to a contributing cause of global warming.

By capturing and using excess CO_2 to produce commercially viable chemicals and plastics, the research not only aims to contribute to the reduction of EU dependency on fossil fuel resources, but also improve the energy efficiency of the chemical industry and provide support for EU leadership in CO_2 re-use technologies. In this way, tackling the CO_2 challenge provides possibilities for encouraging innovation and a more sustainable circular economy.

Technical coordinator Daniel Caudepón from LEITAT (Spain), which leads **BIOCON-CO_2**, explained at the project kick-off meeting in Ghent (Belgium) in January 2018: "This is a very important and timely project, as solutions are needed to tackle the challenge of CO_2 emissions within the iron and steel industries on a global scale. The combined expertise of leading researchers, scientific experts and industry partners from across Europe, as well as two industry partners from Chile and Israel, will allow **BIOCON-CO_2** to lead by example and achieve the project's ambitious goal of utilising CO_2 as a commodity, in a way that can benefit both Europe's economy and environment."

To learn more about the **BIOCON-CO_2** project and its progress, or for any press queries, please contact Marieke Reuver, AquaTT Programme Manager (Email: BIOCON-CO2@aquatt.ie Tel: +353 1 644 9008).

Notes for Editors

The full title of the project is: BIOtechnological processes based on microbial platforms for the CONversion of CO_2 from ironsteel industry into commodities for chemicals and plastics: BIOCON-CO_2.

The **BIOCON-CO_2** project will run from 2018 until 2021, with a total budget of €7 million, the entirety of which is funded by the European Union. The **BIOCON-CO_2** consortium is comprised of experts from eighteen organisations in nine countries. Seven of these countries are located within the EU, alongside two non-EU countries; Chile and Israel. The project is coordinated by the Acondicionamiento Tarrasense Associación (LEITAT), Spain. AquaTT is the project dissemination partner.