

Deliverable Number D13.1: Report summarizing all international collaborative activities; WP13; lead beneficiary no 4 (NERC-NOC)

The ECO₂ project has been very active in strengthening existing collaborations that individual partner organizations had, and building new ones. The ECO₂ project has provided an ideal opportunity to combine these collaborations together on a more formal basis.

Scientific highlights from the earlier periods of the ECO₂ project cover a range of disciplines and have been communicated to our international collaborators (D1.1 Report of leakage assessment; D2.1 Geochemical report on formation fluids from CO₂ storage sites; D3.1 Technical synthesis report; D3.2 Technical report on chemical sensors performance; D3.3 Technical modelling report; D4.1 Report on marine communities; D4.2 Report on marine species; D12.1 Report on model interfaces and evaluation strategy; D12.2 Report on range of long-term scenarios to be simulated). These technical reports were supplemented with a special session at the 2013 American Geophysical Union (AGU) Fall Meeting that served to highlight the results and outcomes from the first half of the ECO₂ project. There were a large number of talks and presentations given in Australia, Japan, the US and many European countries over the whole period of the project. One undoubted success of ECO₂ has been the effective communication of the complex nature of offshore CCS to political and policy leaders; these activities include a number of presentations and briefings to the European Parliament (yearly Policy Stakeholder briefing 1 to 4 at the European Parliament MS7, 13, 21, 32 as well as the yearly concomitant Policy Stakeholder Briefing paper D5.4, 5.5, 5.6, 5.7).

The international collaboration during the final period of the ECO₂ project was mainly concerned with strengthening existing collaborations, and the development of new EC/US partnerships.

Our involvement and collaboration with Australia was reduced due to a change in Government there that has led to a pull back in efforts in the development of offshore CO₂ storage. This change in direction in government policy has halted all offshore CCS development, and is only now concerned with the development of onshore storage of carbon dioxide.

A more positive engagement has been with researchers in the United States. The US Department of Energy (DoE) have reviewed CCS storage and are considering the use of offshore storage as an option for East Coast CO₂ sources. To date the majority of CCS development in the US has been for use in Enhanced Oil Recovery (EOR) activities. As part of the increasing interest in offshore CCS the University of Texas is proposing a demonstration project for offshore storage of carbon dioxide. This proposed project will be focused around monitoring and quantification of any leaking CO₂, the aim is to build confidence in offshore CCS storage.

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There have been a number of presentations and meetings between ECO₂ researchers and international collaborators (see below). Douglas Connelly presented an overview of the ECO₂ project at the International Energy Agency CCS Regulators meeting in Paris in 2014 and Ian Wright presented ECO₂ highlights at the IEA Green House Gas (IEAGHG) monitoring meeting and the DoE National Energy Technology Laboratories Annual Meeting in the US. Douglas Connelly met with researchers from Korea to discuss developing projects in Korea and the role that European Collaborators could have in their projects. Our collaboration with partners in Japan continues and a researcher from the University of Kyushu participated in the UK cruise to the Sleipner area in September 2012. Ian Wright presented a future look of CCS in Europe at the final stakeholder event in Brussels in April of 2015.

Presentations (Final period ECO₂)

Connelly, D.P. Offshore monitoring for geological storage, IEAGHG Taking stock of progress and next steps. IEA Regulators meeting. May 2014, Paris

Wright, I.C., 2014. QICS – a controlled sub-seafloor CO₂ release experiment – an overview of the scientific results. IEAGHG Monitoring Meeting, Morgantown, West Virginia, US, 6th August 2014.

Wright, I.C., 2015. ECO₂: EU project; analogue and existing site study, including work at Sleipner and Snøhvit. National Energy Technology Laboratories Annual Meeting, Department of Energy, Sheraton Hotel, Pittsburgh, US. 13th August 2014.

Wright, I.C., 2015. Future Offshore CCS Research & Technology Development in Europe. Final ECO₂ Stakeholder Event, Scotland House, Brussels, 22nd April 2015.