

PRESS RELEASE



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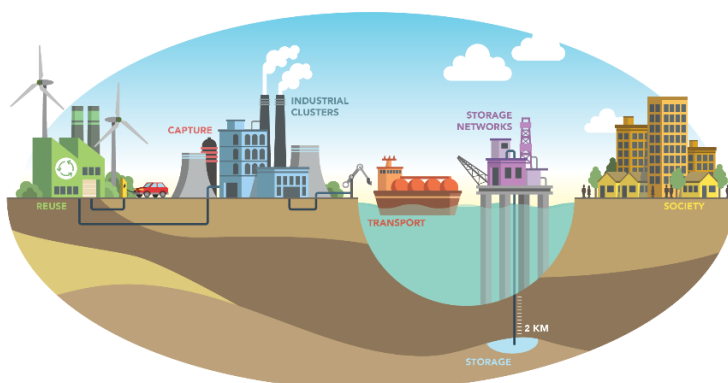
New European research to reduce and reuse CO₂ in industrial processes

Researchers across Europe have come together to accelerate the development of technologies to reduce carbon dioxide (CO₂) emissions. Over the next 3 years, a large project will focus on the removal of CO₂ from industrial processes, the conversion of CO₂ to create valuable products, such as methanol, and the safe storage of CO₂ deep underground.

The 'Accelerating low carbon industrial growth through CCUS' project (ALIGN-CCUS) will enable researchers to work with industry partners to address large-scale carbon (CO₂) capture, utilisation and storage (CCUS) in specific industrial regions throughout Europe. This will be achieved by integrating CO₂ capture with industrial processes, reducing the cost of transport and identifying the least-cost options for CO₂ storage into and beyond the 2020s. ALIGN-CCUS will combine the results from each of these objectives to deliver actionable blueprints in each region, in which CCUS enables low-emission industries, through geological storage or through utilisation of CO₂.

The Department of Business, Energy, & Industrial Strategy (BEIS) recently published a UK Clean Growth Strategy, which recognises CCUS as a key part of the UK's decarbonisation strategy. The ALIGN-CCUS project will support this plan by defining the best routes to CCUS. The project will enable large-scale and cost-effective implementation of CCUS by 2025 in clusters of major industrial activity in five European countries: Teesside and Grangemouth in the UK, Rotterdam in The Netherlands, North Rhine-Westphalia in Germany, Grenland in Norway and Oltenia in Romania.

The British Geological Survey (BGS) will lead the UK project contribution, focussing on the provision of large-scale storage networks and UK case studies to reduce the cost of CCUS deployment at the Teesside and Grangemouth industrial clusters.



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| <p>WP1 CAPTURE</p> <ul style="list-style-type: none"> Emission control Solvent management Dynamics and control Cost reduction | <p>WP2 TRANSPORT</p> <ul style="list-style-type: none"> CO₂ shipping Batch-wise injection CO₂ specifications Planning for flexible networks | <p>WP3 STORAGE</p> <ul style="list-style-type: none"> Standardizing storage readiness North sea storage appraisals Re-use of existing assets | <p>WP9 MANAGEMENT</p> |
| <p>WP4 RE-USE</p> <ul style="list-style-type: none"> CCU demonstrator construction Engine adaption Operation and testing CCU integration and scale-up | <p>WP5 INDUSTRIAL CLUSTERS</p> <ul style="list-style-type: none"> Teesside and Grangemouth (UK) Rotterdam (NL) North Rhine-Westphalia (DE) Grenland (NO) Oltenia region (RO) Commercial models for CCUS clusters | <p>WP6 SOCIETY</p> <ul style="list-style-type: none"> Assessing public opinion Compensation strategies Improving EU dialogue on CCUS | |

Schematic illustration and summary of the Work Packages (WP) and activities in ALIGN-CCUS



BEIS is funding the UK partners from the BGS, Imperial College London, Scottish Enterprise, Summit Power Caledonia UK Ltd, Tees Valley Combined Authority, University of Edinburgh, Heriot-Watt University and the University of Sheffield.

Professor John Ludden, Executive Director of the BGS says: "The ALIGN-CCUS project is a real opportunity to enable heavy industries to decarbonise and thereby meet the growing demands from their customers to offer greener products in the future. I am delighted that the BGS is leading this project for the UK, working in partnership with leading UK academic researchers and commercial partners, and our colleagues across Europe."

The ALIGN-CCUS project is one of three that have begun at the BGS and will take place over the next three years. The combined project totals are in excess of €2 million and will engage the expertise and knowledge of carbon capture and storage and laboratory staff at the BGS offices in Edinburgh and Nottingham.

Ends

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Notes for Editors

The following are available for interview:

- Jonathan Pearce, British Geological Survey
- Dr Maxine Akhurst, British Geological Survey

For additional information go to: www.alignccus.eu/about-project

The British Geological Survey

The British Geological Survey (BGS), a component body of the Natural Environment Research Council (NERC), is the nation's principal supplier of objective, impartial and up-to-date geological expertise and information for decision making for governmental, commercial and individual users. The BGS maintains and develops the nation's understanding of its geology to improve policy making, enhance national wealth and reduce risk. It also collaborates with the national and international scientific community in carrying out research in strategic areas, including energy and natural resources, our vulnerability to environmental change and hazards, and our general knowledge of the Earth system. More about the BGS can be found at www.bgs.ac.uk.

The Natural Environment Research Council

The Natural Environment Research Council (NERC) is the UK's main agency for funding and managing world-class research, training and knowledge exchange in the environmental sciences. It coordinates some of the world's most exciting research projects, tackling major issues such as climate change, food security, environmental influences on human health, the genetic make-up of life on earth, and much more. NERC receives around £300 million a year from the government's science budget, which it uses to fund research and training in universities and its own research centres. www.nerc.ac.uk