HORIZON-CL4-2022-TWIN-TRANSITION-01-11

Carbon4Minerals

Full Title: Transforming CO2 into added-value construction products

Aim:

Carbon4Minerals develops innovative technologies for CO? capture and use in the production of carbon-negative minerals for high-value construction products, with the potential to reduce CO? emissions by 80% - 135% compared to cement-based reference materials. Thus Carbon4Minerals supports climate mitigation while safeguarding the competitiveness of European industry. The cement industry (responsible for 6-8% of global GHG emissions) is looking for alternative materials to replace Portland clinker, to reduce the enormous amounts of CO? emitted during the calcination of limestone. This need is particularly dire in view of the steel industry's transition to H2-based DRI-EAF, thereby phasing out blast furnace slag as cement replacement.

Concept:
The core concept of Carbon4Minerals addresses the simultaneous use of CO? from industrial flue gases with current and future waste streams to unlock a vast stock of resources for innovative low carbon binders and construction materials (80-135% lower CO? emissions).

Start date:
01/01/2023

End date:
31/12/2026