

Abstract for LoCo2 poster - Ali Mahmoodi/Charlotte NL

Bio-Geo-Chemistry of CO₂ leakage & implications on life in seabed environment

Project LoCo2 is focused on assessing the impacts of a potential CO₂ leakage from geological storage reservoirs on life in seabed sediments. To achieve this goal, a multi-stage workflow will be implemented, encompassing bio-geo-chemically reactive flow modelling of CO₂ leakage through overburden and seabed sediments, experimental analysis of the toxic effects of CO₂ and associated impurities as well as other leaking fluids on selected benthic organisms, and ecological modelling. We aim to develop an evaluation toolkit, which can be used to assess the risk and ensure the long-term safety of future large-scale offshore CO₂ storage for life in seabed sediments.