

| Associated Partner linked to a beneficiary Legal Name: Technical University of Catalonia | |
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| General description and link to the concerned beneficiary | The Technical University of Catalonia (UPC) is the largest engineering university in Catalonia (Spain). Besides a wide spectrum of engineering studies, it also offers programs in other related disciplines such as mathematics and architecture. It includes a number of technical schools and several top-ranked research centres (https://www.upc.edu/en). UPC is a university aiming at achieving the highest degree of engineering/technical excellence and has bilateral agreements with several top-ranked European universities. UPC is a member of the Top Industrial Managers for Europe network, which allows for student exchanges between leading European engineering schools. It is also a member of several university federations, including the Conference of European Schools for Advanced Engineering Education and Research (CESAER) and UNITECH. |
| Key Persons and Expertise | Prof. Sebastià Olivella, Professor at the Civil and Environmental School. He is the head of the Geotechnical Engineering and Geo-Sciences Doctoral Program. He is the main developer of the finite element code CODE_BRIGHT (https://deca.upc.edu/en/projects/code_bright) |
| Key Research Facilities, Infrastructure and Equipment | Specialized research laboratories, specialized hardware and software, advanced TIC facilities (including high-performance computing clusters), libraries, etc. |
| Previous and Current Involvement in Research and Training Programmes | The professors and researchers associated with the Doctoral Program in Civil Engineering have been involved in numerous projects of the European Union research framework programmes. |
| Relevant Publications/datasets/softwares/ Innovation Products/ other achievements | <ol style="list-style-type: none"> 1. Vilarrasa, V., Bolster, D., Olivella, S., & Carrera, J. (2010). Coupled hydromechanical modeling of CO2 sequestration in deep saline aquifers. <i>International Journal of Greenhouse Gas Control</i>, 4(6), 910-919. 2. Vilarrasa, V., Silva, O., Carrera, J., & Olivella, S. (2013). Liquid CO2 injection for geological storage in deep saline aquifers. <i>International Journal of Greenhouse Gas Control</i>, 14, 84-96. 3. Olivella, S., Gens, A., Carrera, J., & Alonso, E. E. (1996). Numerical formulation for a simulator (CODE_BRIGHT) for the coupled analysis of saline media. <i>Engineering Computations</i>, 13(7): 87-112. |