

Geological Survey Ireland (GSI)

Decision support systems (DSS) for offshore windfarm siting

GSI employs a DSS in the form of an online, map-based interface (GIS viewer) showcasing geological and non-geological data to support decision making in offshore windfarm siting and other marine spatial planning activities. The primary DST applied in marine spatial planning is MarinePlan.ie. A tool specifically designed for offshore renewable energies are under development, which is proposed to include weighting and/or standardisation of parameters. The output of the work undertaken by GSI in cooperation with the Department of the Environment, Climate and Communications is geophysical data which is provided to the industry who evaluate the data at auction stage.

Input parameters mentioned in the figure may comprise multiple sub-parameters. For more information on the input parameters see Larsen et al. (2025; Table 3, p 27).

Further readings:

Larsen, I. R., Ernsten, V. B., Maspataud, A., Dakin, N., van Heteren, S., Koutroulli, A., Poyiadji, E. & the GSEU T5.4 Consortium (2025). EGDl multifunctional 2D/3D decision-support module v1. GSEU Report on Deliverable 5.7, 165 pp.

