

Multivariable windfarm design tool

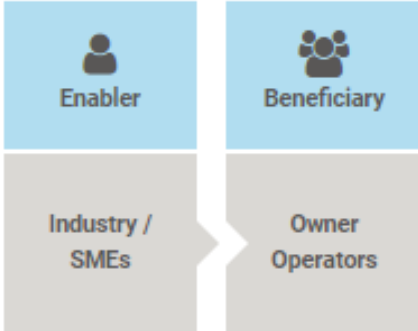
<https://offshorewindinnovationhub.com/category/operations-maintenance/>

Type of Entry: Innovation Area

O&M and Windfarm Lifecycle > Project Development > Project Development

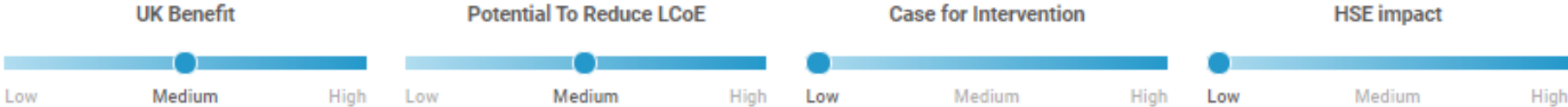
Description

The optimisation of a layout for a windfarm in development is dependent on many variables. These include wake interactions from turbine spacing and layout, cable routes and sizing, substations, geology and seabed conditions, navigation routes and other environmental constraints. At present the layout of a site in development will seek to optimise the design by iteration in a rather manual process. In future, a truly multivariable software solution which enables a layout optimised automatically for either lowest lifetime cost, maximum yield, longest life or some combination of these attributes. Rapid developments aided by advances in ICT and machine learning are anticipated to drive developments at pace in this area.



Strategic Outcome

- Enabling disruptive innovation
- Commercialising >15MW turbine platforms
- Maximising operational performance of existing wind farms**



Notes: HSE will be of low priority for this tool

