

# Machine learning / deep learning from big data

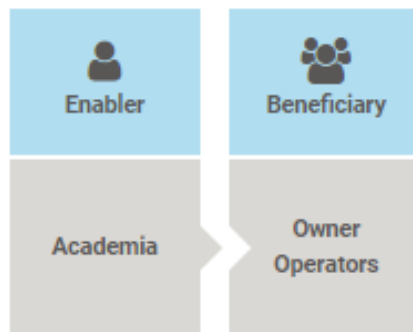
Type of Entry: Innovation Area

O&M and Windfarm Lifecycle > Enabling Research > Digital

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

## Description

Machine learning and drawing benefit from disparate data sources promises both benefits to optimisation of control and operation strategies towards optimal O&M intervention in addition to better understanding of design and modelling assumptions which should lead to improved design of future structures and machines. Issues to be addressed include the integration of numerical models with sensor data to interpolate within individual machines and across arrays, sensor reliability and algorithm and parameter characterisation. A challenge will always be the confidence in which results can be relied upon and so verification and validation cases/methods will be critical.



## Strategic Outcome

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

