



EERA Design Tool for Offshore wind farm Cluster (DTOC)

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Support by



Industry Perspective

A hand-drawn black 'X' mark is drawn over the word "Industry".

~~Industry~~ My Perspective

Strength

The combination of different component models into an integrated design tool



Provides an integrated way of optimising the layout of wind farms



Better decision for developers and strategic planners



Will reduce cost of energy by facilitating better design decisions

It combines scientific excellence from Universities and leading research institutes with the practical know how from industry



Facilitating the design process by allowing users to efficiently explore and compare many design scenarios in search of their optimum

Weaknesses



Limited number of electrical tools included

May not yet fulfil the need of strategic planners



Certain aspects of offshore wind farm design are beyond the scope of EERA DTOC (ecologically sensitive areas, shipping lanes)

As cost modelling is an extremely broad and complex subject in itself, EERA DTOC focused on relatively simple methods of sufficient detail to facilitate the optimization process



Opportunities

The tool will make wake and electrical models more accessible



The integrated approach can facilitate better communication between departments within companies.

Opportunities to build on the existing tool and add new models and functionality



The tool will provide more transparency about decisions of strategic planners

Threats



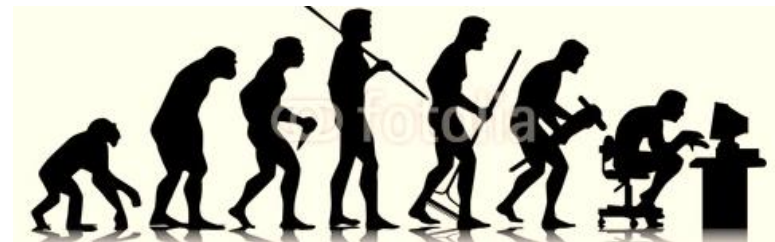
Other tools may compete with DTOC. Therefore, commercialisation must follow a close time

May not be accepted by the market and will not be commercialised. Therefore, it must demonstrate clear benefits, such as GIS interface and seamless model integration



May not fit into the working processes on how developers design their wind farms. Therefore, it must present a convincing work flow

There will be some evolution of user requirements – will the tool be able to adapt to these changes? Therefore, it is important to understand customer needs



Some final thoughts about the process



6 Universities

8 R&D Institutions

9 Industry partners

- Good cooperation between industry and academia
- Inspiration to think across discipline
- Effective way of sharing knowledge
- Industry ensured the tool will provide value

However,

- Challenging to manage the consortia and interest as objectives not always fully align

Overall a good example on how academia and industry should work together.