

## Nomination for Wind Propulsion Research Award

Nomination for: UCL Energy Institute (EI)

Researchers at the UCL EI have been at the forefront in undertaking research to promote the uptake of wind technologies. To date the research has focused on assessing both the technical (including modelling) and commercial potential (understanding the commercial reality) for wind technologies.

The research group actively engages with the wind propulsion sector through various projects and initiatives, including the following:

- UCL EI is an active member of the Smart Green Shipping Alliance, which is a collaboration of SMEs and large organisations seeking to promote marine renewables. UCL EI's work here to date has been supporting B9 Shipping with preliminary analysis for potential clients.
- Through the Low Carbon Shipping project, led by Dr Tristan Smith the group started researching the technical potential of various wind technologies since 2012/2013, see for example Smith et al. (2013) written in collaboration with Rolls Royce.
- The group has also worked collaboratively with Carbon War Room to launch the Shipping Innovation Fast Tracker (ShIFT), which helps technology firms, in particular wind technology providers, in bringing their products to market. So far, UCL has supported ShIFT by providing data from the 3<sup>rd</sup> IMO GHG study and using Clarksons data to show market characteristics e.g. size of spot and time charters, number of ships and owners of ships, specific ship operating profiles. UCL EI has also made this data available in visualised form on [www.shipmap.org](http://www.shipmap.org) which has already proven useful to at least two wind technology providers. ShIFT further connects the work of the group with industry. As an example, UCL EI hosted a joint breakfast during the Danish Maritime Days 2014 and invited the six participating wind technology providers to pitch and network with shipowners and operators. The project has also led to more academic outcomes such as two poster presentations on barriers to adoption and the 'Vallye of Death' faced by wind technologies presented at the Shipping in Changing Climates Conference 2014 and Green Shipping Technology conference 2015 as well as a peer reviewed journal paper published in Marine Policy (Rehmatulla et al. In Press).
- The group has also been joined by Isabelle Rojon, whose seminal work on the policies for wind technologies (Rojon & Dieperink 2014) has been leveraged in ongoing projects supporting IWSA market transformation and policy work streams.
- Currently, the researchers based in the group are investigating low-carbon step change technologies with researchers at Fraunhofer ISI, and together with Alexander Lewis-Jones are conducting a comprehensive literature meta analysis and stakeholder analysis for wind technologies. UCL EI has thus acted as a hub for researchers to collaborate on wind propulsion research.
- Furthermore, researchers from the group will be conducting quantitative/statistical analysis of recent trials from a flettner rotor for a project funded by a public-private partnership.

UCL EI has therefore brought unparalleled contribution to the wind propulsion sector both in the form of rigorous academic research and excellent engagement with the industry through either consultancy or pro bono projects.