

Kitepower's 40 m² Leading Edge Inflatable V3 kite (17 April 2018)



Kitepower's fleet of 25, 40 and 60 m² kites and their control units lined up for a showcase event (29 August 2019)



Kitepower's 100 m² Leading Edge Inflatable kite being deployed (29 August 2019)



Transporting the 100 kW ground station (29 February 2018)





100 kW ground station in operation (26 February 2018)



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REACH: A H2020 FTI Project to Develop a 100 kW AWE System

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At the end of 2015 the REACH[1] proposal was granted by the EU within the H2020 Fast-Track to Innovation (FTI) Pilot. FTI is a fully-bottom-up innovation support programme promoting close-to-the-market innovation activities open to industry-driven consortia that can be composed of all types of participants.

Airborne Wind Energy fitted perfectly with the goals of this programme. The REACH consortium consists of an academic partner (TU Delft, the Netherlands), a ground-station supplier (Dromec, the Netherlands), kite supplier (Genetrix, France), a kite control unit supplier (Maxon Motors, Germany) and an integrator (Enevate/Kitepower, the Netherlands). REACH is the second highest grant awarded to Airborne Wind by the EU up to date with a total budget of 3.7 million Euro. FTI might also be useful for other AWE initiatives but has a low grant success rate.

The starting point of the development was the 20 kW system which was developed from the TU Delft system. The final goal was a commercial 100 kW system. This talk will sketch the development of the system during the course of the 4 year project and the contributions of the several partners. Involving key partners in the supply chain from the beginning proved very useful in developing this innovative system.

During the project different challenges overcome, like for example scaling, automation, reliability, safety and system integration. The talk will present the different technology steps the system went through in order to get to the current status of the 100 kW system and indicate how the partners made this H2020 FTI project to a success.



References:

[1] Resource Efficient Automatic Conversion of High-Altitude Wind
<https://cordis.europa.eu/project/rcn/199241/factsheet/en>