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The European Union AWES Centre of Excellence at La Gomera

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The EU AWES Centre of Excellence (EU-AWES-COE) at La Gomera is a unique and very much needed research infrastructure for AWES.

This initiative was started by CT Ingenieros (CT) early 2022 with the objective of developing several AWES technologies, such as:

- Technologies that allow the conceptual design of AWES aircraft.
- Technologies that allow advanced modelling and simulation of AWES systems and their environment plus its “Software-In-The-Loop” (SWIL) integration of models and their synthetic validation.
- Technologies that enable:
 - Hardware-In-The-Loop (HWIL) integration of real and synthetic elements.
 - The integration of the avionics of high dynamic aircraft such as AWES vehicles.
 - The integration of AWES ground systems simulating the behaviour of the aircraft pulling the cable.

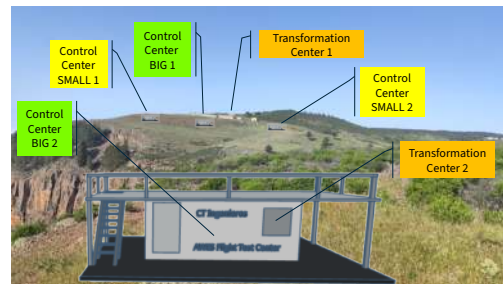
At the June 2022 Milan Airborne Wind Europe (AWE) meeting, CT proposed to incorporate to this initiative an infrastructure for in flight validation 24/7 of AWES (i.e. a Flight Test Centre - FTC) for our sector and it was unanimously accepted by associates [1]. Ten positive letters of interest were provided.

After a long negotiation process, at September 2023, Cabildo of La Gomera accepted its scope and budget as part of a national, regional and local initiative named “Estrategia Gomera 36” which is an instrument with more than

230 projects to be executed until 2036 on the island that will be financed in public-private collaboration.

The investment phase for EU-AWES-COE will last 3.5 years and will require some 5.9 M€. The operation phase for EU-AWES-COE has been extended to 2036 (in the scope of “Estrategia Gomera 36”) and will require some 3.7 M€. CT has developed a return of investment scheme based on self-consumption of the energy produced at the FTC by a local energy community which allows to even provide an income to the company using the FTC.

This presentation will show the site assessment process and the different facilities of this unique R&D infrastructure and an update on its development status.



1.2 MW AWES Flight Test Centre in Arure, Valle Gran Rey, La Gomera.

References:

[1] <https://greeningtheislands.org/groundbreaking-centre-of-excellence-in-la-gomera-will-help-make-airborne-wind-energy-a-reality-in-small-islands/>