



MAINTENANCE DRONES AND ROBOTS TO ENHANCE RENEWABLE ENERGY SYSTEMS IN THE ATLANTIC AREA

DURABLE will accelerate the deployment of renewable energies in the Atlantic area through the validation and demonstration of previous developed aerospace technologies applied in robotics to operation and maintenance activities in wind and solar energy systems.



DURABLE will identify technologies with potential application to O&M of solar PV and wind energy, adapt them both to navigation/surveillance and maintenance/repair purposes, and finally implement them in two pilot sites for their validation.

Joint mapping of technologies and expected needs

Main aspects that affect O&M in solar and wind energy production and robotic and aerospace technologies with potential application in the target field will be identified.

Adaptation of technologies for navigation and surveillance

Approaches for control and surveillance such as non-destructive testing (NDT) by robots (UAVs or UGVs), contact inspection (ultrasonic, thermographic), autonomous and intelligent navigation will be applied.



Unmanned Aerial Vehicle (UAV)



Nondestructive Testing (NDT)



Unmanned Ground vehicle (UGV)

Navigation and surveillance



Augmented Reality (AR) and Virtual Reality (VR)

Maintenance and repair



Automated composites repair technology



Additive Manufacturing (AM)





Demos

The project will allow to identify new technologies for the reduction of costs and the viability of solar and wind energy.



13 partners from 5 atlantic countries are joining forces to transfer previous developed aerospace technologies applied in robotics for operation and maintenance activities to wind and solar energy systems.

PARTNERS



This Project is co-financed by the Interreg Atlantic Area Programme through the European Regional Development Fund under grant agreement EAPA_986/2018