

# HOW TO DEVELOP ENGINEERING AND ASSEMBLY INTERFACE FOR LARGE OFFSHORE WIND STRUCTURES ?



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## THE COMPANY

WINDAR renewables offers global solutions for manufacturing of wind towers for wind turbines and offshore foundations. Thanks to our historical progress and sustainable experience in the manufacturing of tubular steel structures, WINDAR renewables, has become a global leader. Due to our expertise, we are a reference company ahead of the most important wind turbine manufacturers in the world. Our success is the result of the effort and dynamism of people with great abilities and innovative spirit who, day-to-day, face new projects by combining youth, experience and professionalism of the team to which they belong.

Windar Technology and Innovation (WTech) is a R&D Centre related to the Windar Renewables Group. The main activities of the centre are focus on product design, digitalization and industrialization.

## THE CHALLENGE :

With this challenge it is expected to test the deployment of digital technologies (AR mainly) at site. As a key product, transition pieces for monopile foundation are the most promising opportunity to evaluate the benefits and drawbacks of this process digitalization.

As of now Wtech has identify the opportunity to implement a substantial change around the communication management between engineering and assembly team at site. The idea is to develop and test at site an interactive document consulting tool capable to keep a real time communication flow.

The tool needs to be flexible to be utilized in different physical supports. The information has to be always updated and linked to product data libraries. The UI needs to be intuitive in order to be adopted by the technicians at site. Paper supports has to disappear and hence all required input has to be accounted

## BÉNÉFICES ATTENDUS ET PERSPECTIVES EN CAS DE SUCCÈS

In this challenge we propose a paradigm shift, changing to digital documents for assembly. In addition to documents in digital format, we seek a solution that is intuitive for the worker, that allows him to use 3D environments using technologies such as Virtual Reality or Augmented Reality and that also allows a bidirectional.

WTech will collaborate tightly in the development of the tool. If the project is successful, the idea is to escalate the technology.



### TERMS OF COLLABORATION

Engineering team will be available to show all product data libraries (3D and specs). IT Team will ensure connectivity at site and manage all DB requirements. Assembly team will assess and tests and all inputs during the development of the tool.