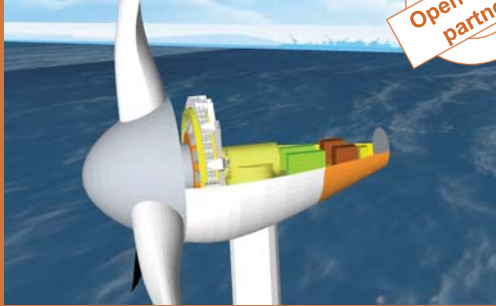


Superconducting light weight 10 MW generator for offshore wind turbines

SUPERTURBINE

Open to new partners



A BREAKTHROUGH TECHNOLOGY TRANSFORMED INTO A BUSINESS OPPORTUNITY

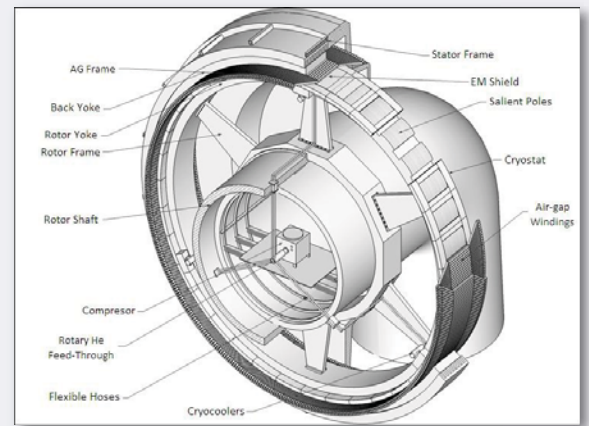
Market demands more powerful and reliable wind turbines to reduce offshore wind farm capital and operation expenses.

But...8/10 MW is a barrier, current wind generators are difficult to scale up to 10 MW and beyond. Large turbines result unfeasible from a technical and economical perspective due to huge generator size and weight.

Superconductivity may be the only technology able to achieve a radical reduction of the turbine head mass.

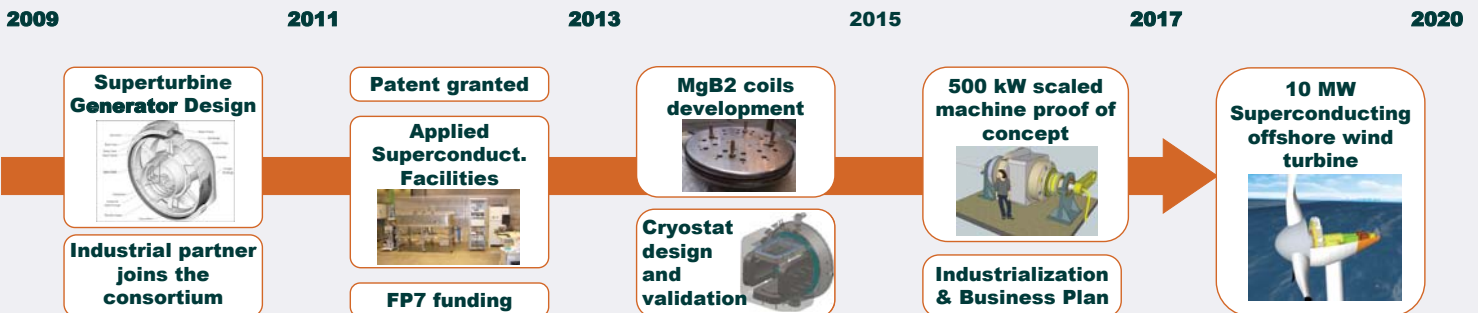
Superturbine is a “10 MW class Superconducting Direct Drive Generator” that gives answer to the offshore sector demands while overcomes other superconducting generators challenges.

- 30-40% weight reduction
- Base on MgB_2 wire, which cost several times less than other superconducting wires
- Modular and cryogen free cooling system (no cryogenic fluids)
- Reduced maintenance
- Non rare earth materials
- Cost in the range of permanent magnet generators



Patent granted in July 2012 (PTC/ES2009/070639)

ROADMAP



Partially funded by the Ministerio de Industria, Turismo y Comercio. (Project IPT-2011-1664-920000)



The research leading to these results has received funding from the European Union Seventh Framework Programme (FP7/2007-2013) under grant agreement n° 308793