Taking away innovation thresholds through partnerships

Access to real offshore turbines, specific field-datasets, setting-up measurement campaigns

C-Power parkwind Belwind Offshore Energy Nobelwind Offshore energy Northwind Offshore Energy

BE Offshore park operators as key R&D partner

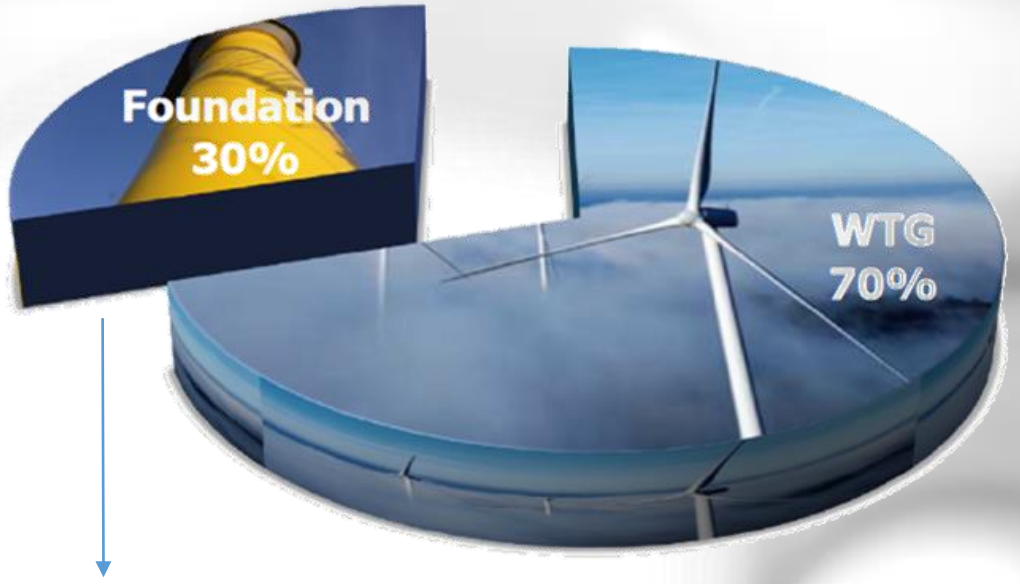
- Win-win partnership
- Initiator to many R&D and innovation projects
- Started with Belwind in 2011 ; expanded to 4 operational farms
- OWI-Lab gets access to turbines and essential R&D data
- Instrumentation & analysis by OWI-Lab
- Operators gain insights in measurement results to

    1) Optimize certain O&M activities
    2) Optimized new offshore farms: cost, risk, lifetime,…

- Unique knowledge built-up on the topic of foundations and FSHM (foundation structural health monitoring)
- Key research topic at VUB

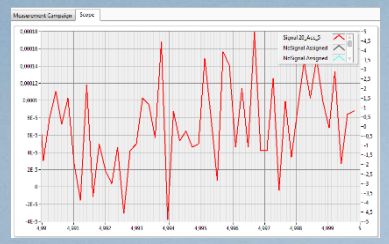
Taking away innovation thresholds through partnerships

Access to real offshore turbines, specific field-datasets, setting-up measurement campaigns

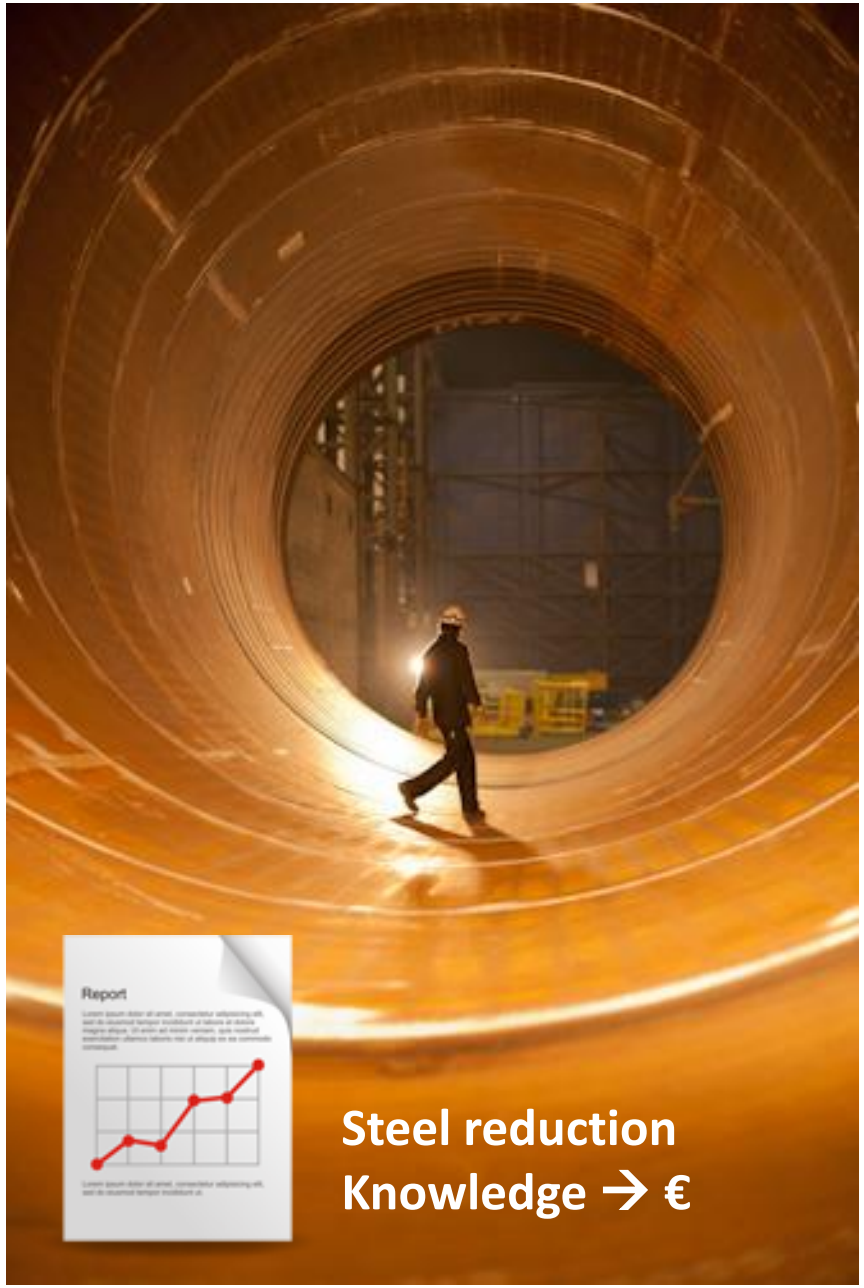


- Focus topic within OWI-Lab (smart specialization)
- Strong knowledge at partner university
- Interest from the BE industry

2011

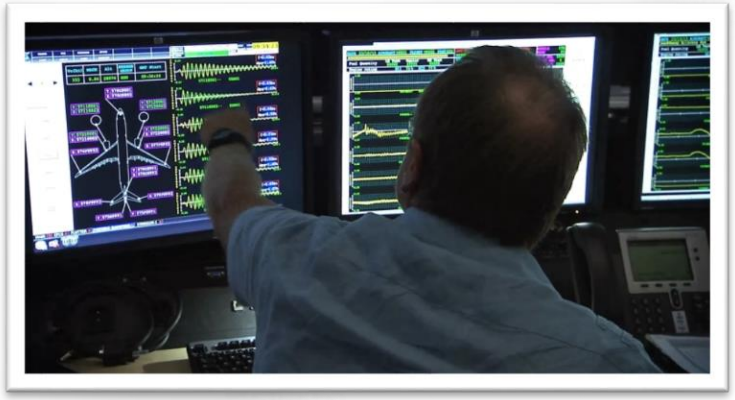


- Design Input for new offshore wind farm
- Reduction of uncertainty (= cost)


Report
Steel reduction
Knowledge → €

Data was used to design foundations of a next offshore wind farm

Academic key expertise and research domain was fitted for offshore wind turbine applications (new)



That's Data Science: Airbus Puts 10,000 Sensors in Every Single Wing!

Posted by Bernard Marr on April 9, 2015 at 7:00pm View Blog

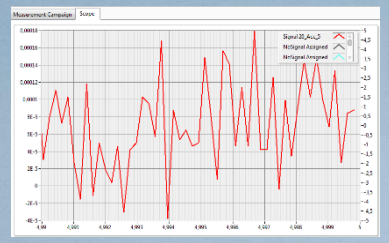
In a meeting with Airbus last week I found out that their forthcoming A380-1000 – the supersized airliner capable of carrying up to 1,000 passengers – will be equipped with 10,000 sensors in each wing.

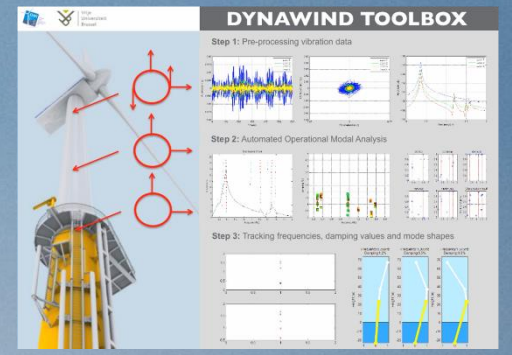
The current A350 model has a total of close to 6,000 sensors across the entire plane and generates 2.5 Tb of data per day, while the newer model – expected to take to the skies in 2020 – will capture more than triple that amount.

2012-2016

10 turbines
2TB/ turbine / month

- SCADA
- OWI-Sensors
- Meteo-data
- Sea-conditions





BIG data !

Belwind Offshore Energy
Nobelwind Offshore energy
Northwind Offshore Energy