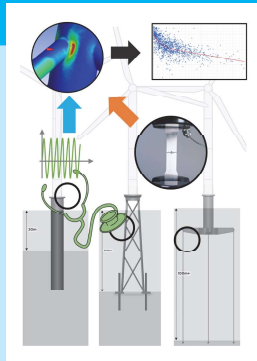


SMART JOINING

Improved life prediction of offshore wind foundations



Challenge

Increasing demand of renewable energy drives the amount of foundations needed, to be placed further and deeper. Uncertainties in **life prediction** of joints drive conservative design. Material and labour should be used efficiently.

How

- 1) Understand reliability by developing and calibrating models at multiple levels:
 - material - **joint** - structure - wind farm
- 2) Collect **data** from field
- 3) Pair to a **digital twin** to predict / update the structural life.

Impact

- **Reduce costs** for production, installation and maintenance by 25%
- Increase **safety and availability** of renewable energy

