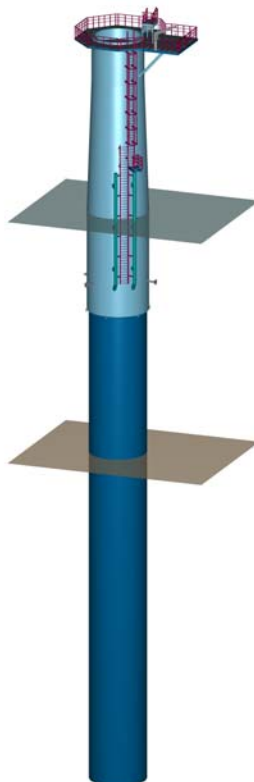


## References

- Project:** **Butendiek Offshore Wind Farm**  
 – **Preliminary Design and Collision Analysis of a Monopile Foundation for Approval (Stage 1) by the BSH (German Federal Maritime and Hydrographic Agency)**
- Period:** June 2008 – December 2011
- Client:** BOW Butendiek Offshore Windpark GmbH & Co. KG / Airtricity
- Short Description:** IMS is commissioned to render the following services for the Butendiek offshore wind farm:
1. Comparative study of different foundation structures
    - Preliminary designs (rough design)
    - Determination of quantities and costs
    - Installation costs
    - Comparison and assessment
  2. Preliminary design of the monopile for approval (Stage 1) by the BSH
  3. Collision analysis for approval (Stage 1) by the BSH
  4. Pile driving analysis with GRLWEAP



Monopile