## **ALWAYS BE SAFE WITH PIONEER NAVIGATION**

### **BUSINESS = PEOPLE = TEAM SPIRIT**

### **MARINE & OFFSHORE MANAGEMENT**



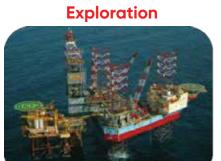
# PIONEER

Pioneer Navigation Group established in June 2017, and incorporated in Turkey. Pioneer Navigation Group, from his operating headquarters in Istanbul, offers full management, design, construction, operational and advisory services. General information about the building stage will be presented within next slides.





### **GENERAL PROCESS FOR EACH STAGE**







Construction

**Production** 





Jack-up

#### Semi-submersible

Contraction of the second seco

Vessel



#### **Equipment for Offshore Wind Turbine Installation**



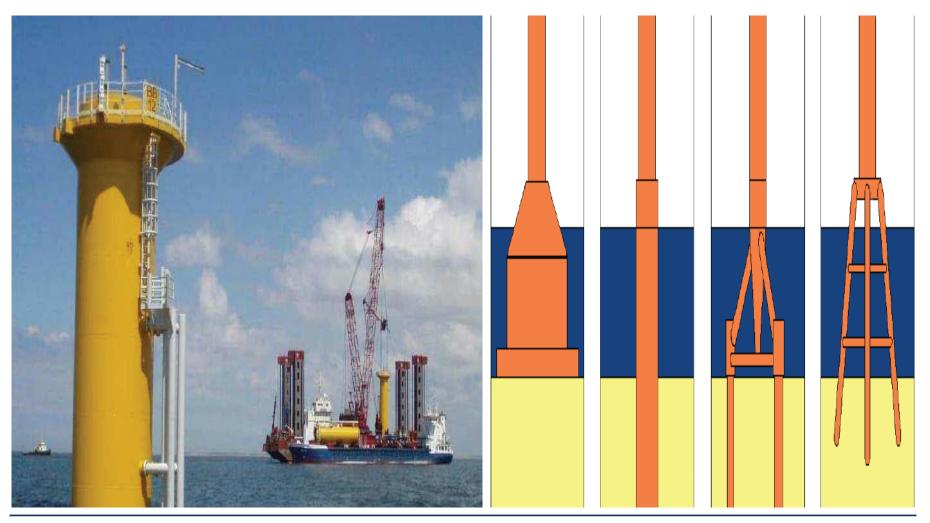


#### **Installation of Gravity Foundations**





### **Transition Piece (Grouted) & Offshore Foundations**





#### **Transition Pieces**





#### Installation Monopilles Foundation Jackets, Tripod, Tripile





### **Hammering Monopiles**





### **Transportation**





### **Installation & Equipments**





### **Steel Tower (Bumpers & Guides)**





#### **Nacelle Installation**





#### **Preparations**





Transfer





#### **Turbine Installations**





#### FeedingOffshore





### **Cable Laying**





#### **Crew & ServiceVessels**





### Other Vessels will be needed as well...

- Cable laying vessels
- Personnel transfer vessels
- Tugs
- Hotel Ships

#### Totally up to 30 different vessels on the site at a time.







### Port Logistics need to be planned at the beginning









