Testing foundation and installation method in wave basin

Cleaner, cheaper and faster

We help our clients to produce energy from offshore wind farms and marginal oil fields
Our team

**O&G based knowledge utilized through green energy**

### Engineering team
- **EICT Solutions for Remote Operation and Monitoring**
  - Eldor a/s
- **Structural design verification**
  - Gudme Stad a/s
  - Professor Ove T. Gudmestad
- **Seabed soil interface mechanics**
  - Norwegian Geotechnical Institute
- **Dedicated NUI crane development**
  - Melcal Marine

### Collaboration partners
- **EPC partner**
  - Worley Parsons – Rosenberg
- **Platform construction and Load out**
- **Ocean Installer**
  - Marine installation
- **WISE group**
  - Offshore positioning and levelling
- **Skywind GmbH**
  - Offshore wind Turbines
- **Wartsila**
  - Installation vessel interface

### Technology, Project owner and Manager
- *Jørn Haugvaldstad*
- Platform advisor
  - *Asbjørn Tansø*

### Structural and Marine design advisor
- Prof. Ove T. Gudmestad –
  - Financial advisor
    - *Tor Eskeland -*

### 3rd party verifications
- Independent analysis, testing and verifications of Structural design and Marine operations executed by SINTEF Ocean,UiS and University College of Cork - Ireland.

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Wind Farms
Current market

4 market segments
- Land
- Near shore
- Offshore
- 50 -120 m depth represent a niche in the market with no current cost effective solutions

Technology development trends:
- Bigger turbines further away from shore
- Deeper waters

Our product segment
- 0-50 m depth
  - Near shore installations
  - Market leader:
- 50 -120 m depth
  - No current cost effective solutions in market
  - Potential of 25,000 wind mills in Europe alone
- >120 m depth
  - Offshore floating installations
  - Market leader:

Land
- Land based installations
- Market leader:
Offshore Wind
Our delivery segment

..outlook to 2030

Source: BVG Associates / GWEC Global Wind 2017 Report
Our solution

**MC-7 Offshore solutions and MINT installation method**

*MINT Transport and Installation – MC-7 Wind*

*MINT Transport and Installation – MC-7 Petro*

*MC-7 Petro and MC-7 Wind structures*
MC – 7 Wind

Area of use

**Offshore wind related area of use**

- Wind turbines for windfarms
- Windfarm substation
- Wind turbines for oilfields power supply
- Other tailored wind/hydrogen hybrid solutions

**Technology development trends**

- Bigger turbines (up to 15 MW ?)
- Higher up & more visible from shore
- Further from shore & deeper water

The future development requirement can be adapted to the MC-7 & MINT technology
Todays offshore installations

_Turbine size 6 – 8 MW – 85 meter above sea level_

Seabed fixec structures for waterdepths 50 to 120 meters installed as complete units.
Funding strategy

Investment invitations

1. Full scale prototype pre-project
   Funded by sales of 300 common equity shares.
   - 10 MNOK

2. Prototype construction & installation
   Funded by the following alternatives:
   a) Clients – Contract award
   b) EU-Horizon 2020
   c) Innovation Norway
   The required GE private placement from phase 2 can be from 0 to 62 MNOK depending on contractual and funding success rate.
   - 165 MNOK

3. Commercial operation
   To be decided towards the end of phase 2 execution.
   - ??? MNOK
Thank you for listening.............

and

if you want to invest in Green Entrans AS, please contact us.

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