



# WINDPAL company information 2021



# HISTORY

Established: 2016, Tokyo, Japan

Employees: 15

Tier 1 network employees: 9,000 +

Office: Tokyo, Taipei, Esbjerg, Seoul, St. Petersburg

COWI

dun & bradstreet

FairWind

vento  
energy support

taihan

MH-O&Co

polytech

BLADT  
INDUSTRIES

NEW POWER  
PARTNERS

WINDPAL  
PROVIDING SUSTAINABLE WIND SOLUTIONS





# ABOUT

Windpal Co., Ltd was established in 2016 by Andrey Kononchuk, together with Danish and Japanese partners. All partners have been working in Offshore Oil & gas and Wind industry since 2005 in positions ranging from hands-on-experience as site manager and project manager to director/owners level. Our motto “Proven Solutions” is based on experience and desire to improve project planning and execution returns in new markets with experienced and proven experts who have been tested on various projects before and who are recognized not only for their technical and operational achievements but also for their desire to bring expertise to new challenging markets In collaboration with local unexperienced stakeholders and contractors.

We focus on the project’s operational power and our strength is ability to analyse, and react timely in a fast-phased decision making environment. We believe we bring “Proven Solutions” to Projects through our founding values and reliable Global network .







# Windpal - BUSINESS AREAS

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- Design & Engineering (geotechnical investigations, CPT, SPT, Seismic logging, Detailed design of Foundations, fabrication, logistics)
- Full Construction support (Technical and management personnel, quayside management, pre-assembly, stevedoring, lifting supervising, Marine warranty survey, load outs, offshore installation and commissioning personnel, Marine coordination centre management, CTV operations)
- Cable laying support (supervising, commissioning)
- O&M support (CTV, Maintenance technicians, spare parts)





# Turn-Key solutions based on European experience

## <Integrated Solution Provider>



**WINDPAL**  
PROVEN OFFSHORE WIND SOLUTIONS

**COWI**

### ■ Survey (DP2 / 4PM Survey vessel)

- SPT/CPT/SCPT/Sampling
- PS Logging
- Advanced laboratory test
- Boreholes drilling & Sampling
- UXO
- Multibeam echosounder
- Geohazard (2D/3D UHRS) (Liquefaction · Seismic)
- OWF site cable route

### ■ Design

- Basic & Detailed Design (Monopile, Jacket, floating and gravity)
- Offshore Substation
- Design for fabrication, Transportation and installation
- Scouring and corrosion protection
- Submarine cable laying design
- Geotechnical analysis and evaluation

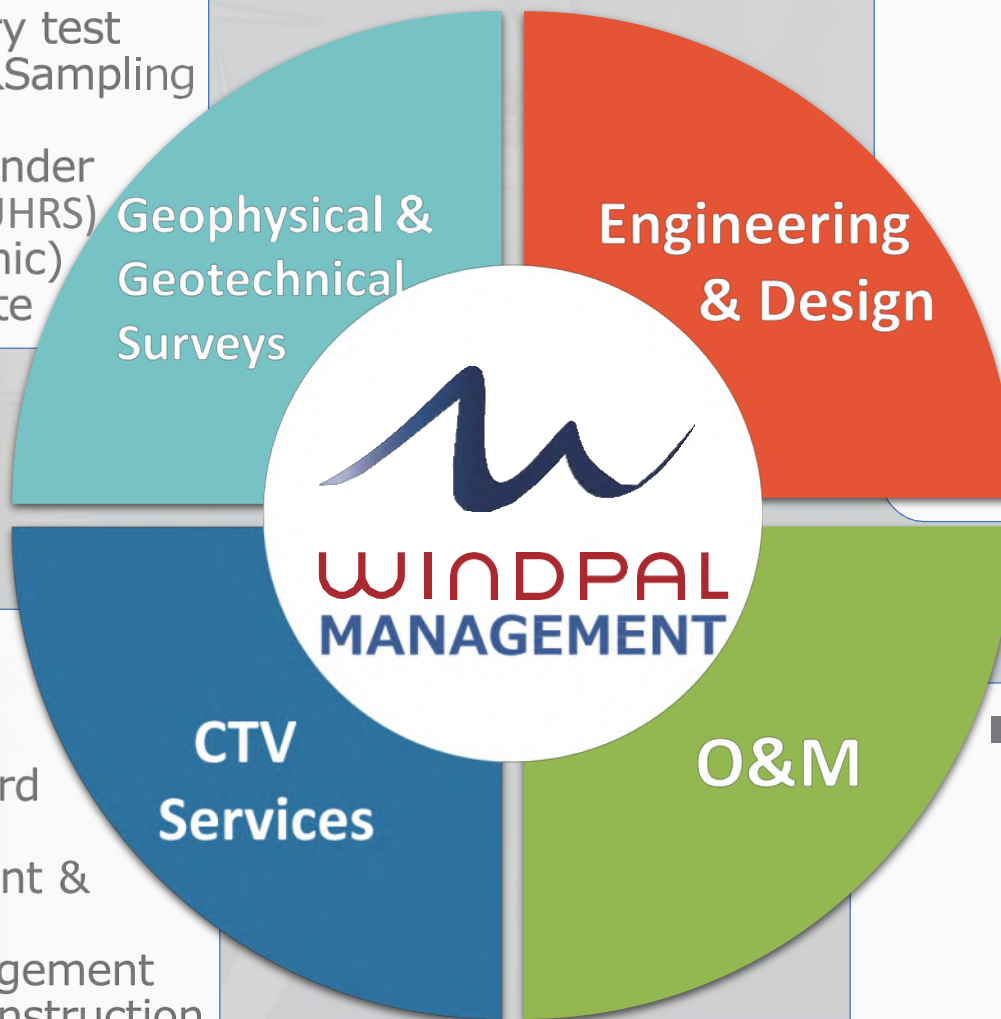


**MHO-Co**

### ■ CTV

- Design
- Operation
- Selection of shipyard
- Crew Training
- Transport equipment & Personnel
- Inspection & Management For CTV construction

### ■ Development of subsea equipment



**FairWind**

[fairwind.com](http://fairwind.com)

### ■ Service & Maintenance

- WTG Pre-assembly
- WTG offshore installation
- Electrical installation
- Mechanical installation
- Commissioning
- WTG Lifetime extensions
- Inspection & Repair

### ■ Project, HSE, facility Management

# COWI

## Monopile foundations – Detailed Design



> London Array offshore wind farm	DD, UK	630 MW, SWP 3.6 MW
> Rentel offshore wind farm	DD, Belgium	300 MW SWP 6 MW
> Merkur offshore wind farm	DD, Germany	400 MW Alstom 6 MW
> Hohe See offshore wind farm	DD, Germany	500 MW SWP 7 MW
> Albatros offshore wind farm	DD, Germany	110 MW SWP 7 MW
> DanTysk offshore wind farm	DD, Germany	290 MW SWP 6 MW
> Formosa 1 offshore wind farm	DD, Taiwan	150 MW SWP 6 MW

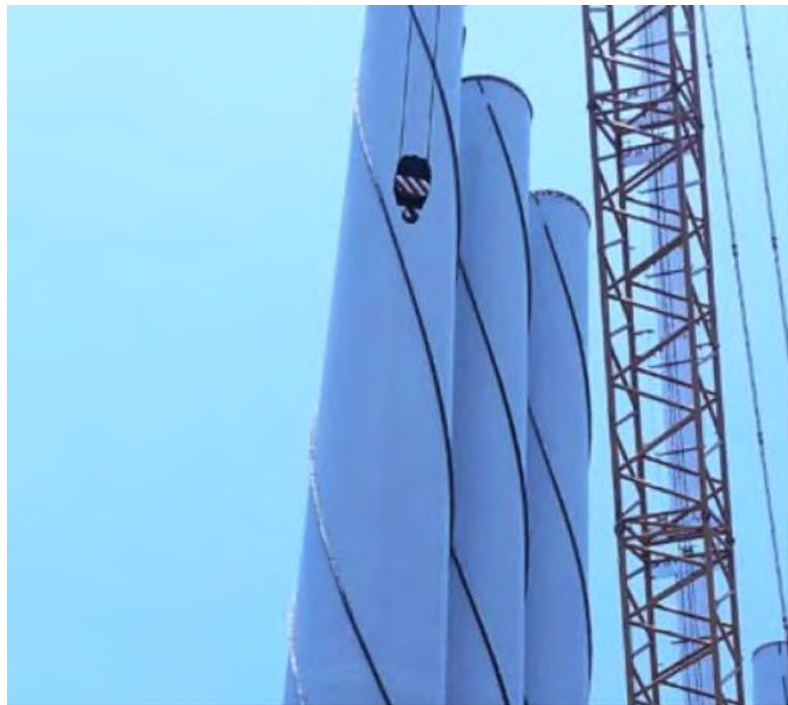
## Jacket foundations – Detailed Design



> Wikinger offshore wind farm	DD, Germany	350 MW Areva	6 MW
> Thornton Bank Phase 2+3	DD, Belgium	240 MW RePower	6 MW
> Ormonde Offshore Wind farm	DD, UK	150 MW RePower	5 MW
> Alpha Ventus offshore wind farm	DD, Germany	30 MW RePower	5 MW
> Le Carnet	DD, France	5 MW Alstom	6 MW

>Changuhua	Taiwan	5.2MW x 21	109.2MW
>Formosa2	Taiwan	8MWx 47	376MW

# FairWind



Formosa 1 Phase 2

🔗 Siemens Gamesa, SWT 7.0-154, 10-20  
turbines

Yunlin Project in Taiwan



Borssele Transition Pieces

🔗 Siemens Gamesa, SG 8.0-167 DD, 50-100  
turbines



Hohe See / Albatros

🔗 Siemens Gamesa, SWT 7.0-154, 50-100  
turbines



# COMPLETE OR PARTIAL EPCI CONSULTING/MANAGEMENT

Windpal is dedicated to serve Offshore Wind. We offer specialist knowledge and management experts for project planning and execution within design and construction disciplines.

As part of the organization or as experienced advisor we offer the following services:

- Management and leadership of the EPC organization including target setting
- Health and Safety performance
- Budgetary responsibility
- Team establishment and development and reporting to owners, partners and investors



# PACKAGE AND PROJECT MANAGEMENT

Management of EPC packages within planning, construction and commissioning activities – most significantly;

- Wind Turbine procurement, installation and commissioning
- Monopile and Transition Piece supply, installation and commissioning
- Inter array cable supply and installation
- Contract negotiations and contract management
- Risk and interface management
- Site mobilization and management





# MARITIME OPERATIONS

Management of EPC packages within planning, construction and commissioning activities – most significantly;

- Wind Turbine supply, installation and commissioning
- Monopile and Transition Piece supply, installation and commissioning
- Inter array cable supply and installation
- Contract negotiations and contract management
- Risk and interface management
- Site mobilization and management





# CORE PARTNERS NETWORK

Management is based on Tier 1 Network partners

- Design and Engineering / Geotech, geophysical investigations
- Fabrication, Pre-installation, installation and commissioning
- Transport/Stevedoring
- Inter array Cable supply and installation
- Contract negotiations and contract management
- Risk and interface management
- Site mobilization and management





# Overview of optimised EPC organisation

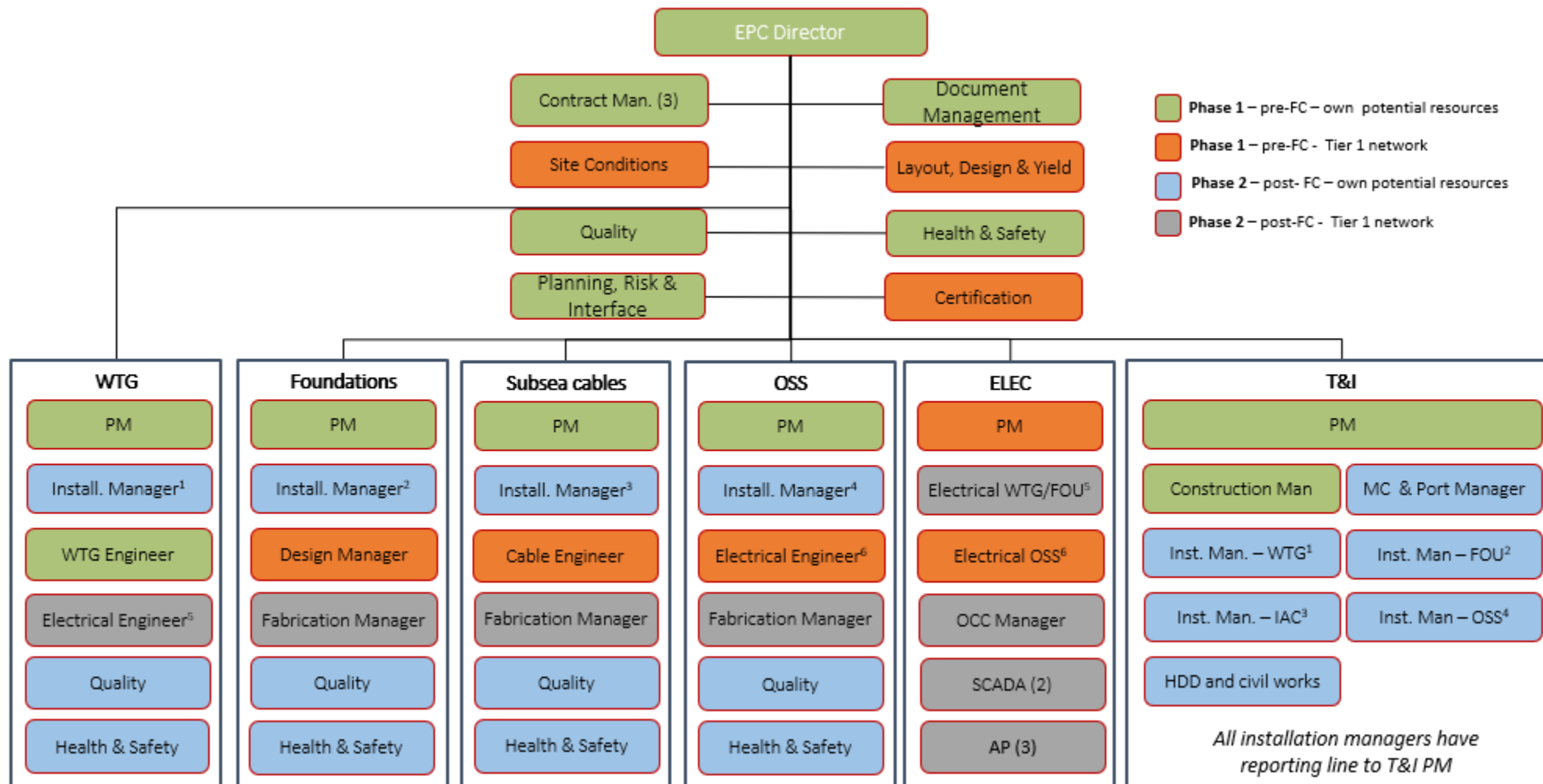
EPC organisation with own specialists and through established and functioning network

## 1. Core Competencies will include

- ✓ Package Management within all disciplines
- ✓ Construction Management
- ✓ Installation and Marine Management.
- ✓ Contract Management and Procurement

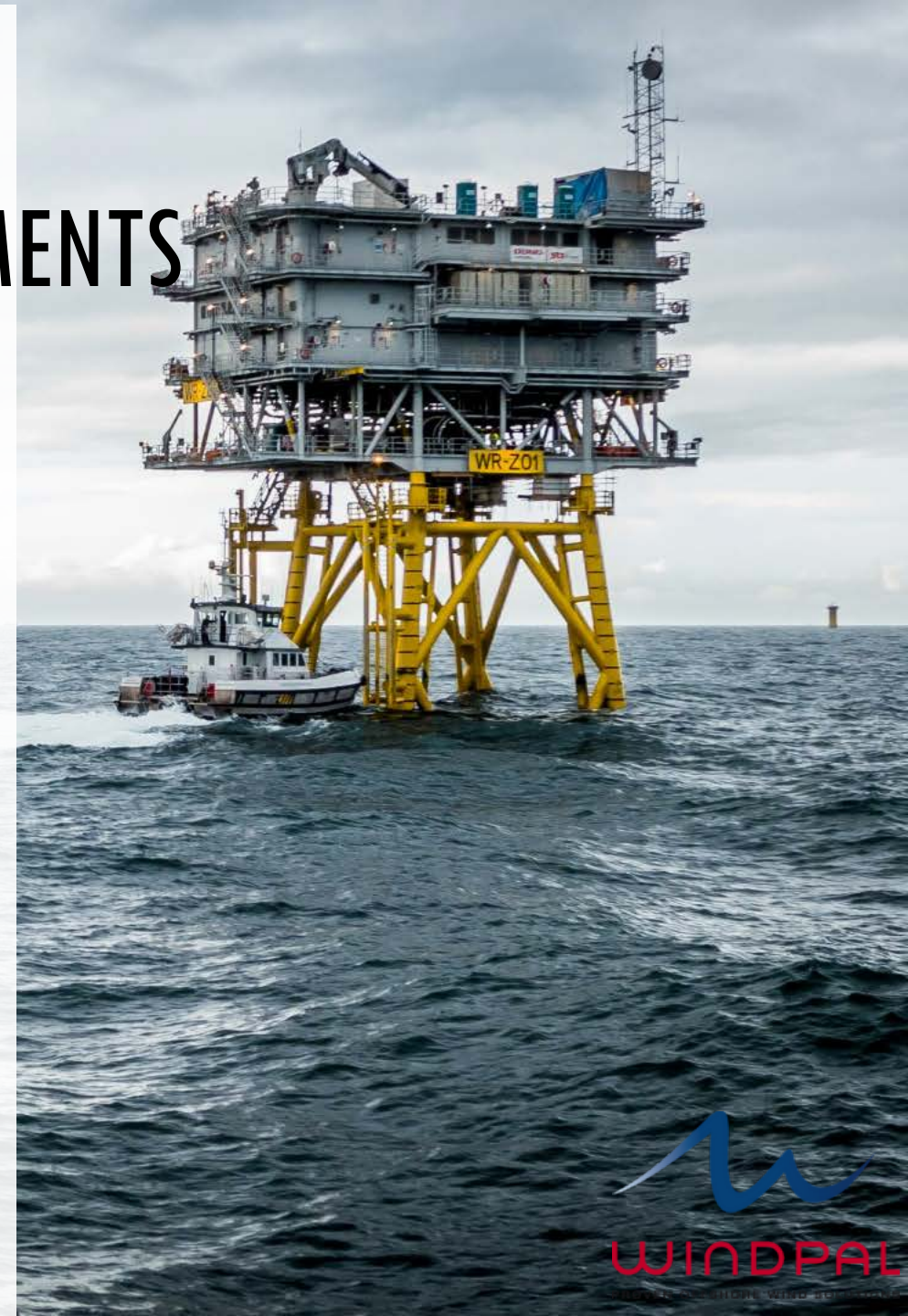
## 2. Tier 1 network – management or hired – includes

- ✓ Design management
- ✓ AEP, micro siting, layout analysis : design
- ✓ Geotech., geophys. and surveys
- ✓ Health, Safety & Environment
- ✓ Quality
- ✓ Scada



# WINDPAL NETWORK KEY ACHIEVEMENTS

- COWI: Taiwan Formosa1 &2, Changufua etc, FairWind: Taiwan Formosa 1 & Yunlin etc
- Supplied lifting supervisors for Taiwan project concepts including new Foundation, Substation, WTG design and
- Project execution of numerous projects with various contractors with very high safety standards
- Successful interaction with relevant authorities in managing Environmental impact during construction.
- Development of new and improved Daily Progress Reporting catalogue.
- Participation in Industry forum defining new standards for the construction industry.





# QUAYSIDE MANAGEMENT

Bridging the gap between the Onshore and Offshore sites our 'Quayside Management' provides an effective and efficient solution for the Client ensuring that Load Out's are unimpeded :

- Jack-up preparation including Stone Beds and dredging
- Assessment and provision of Crane Pads if required
- Structural Assessment of the load out facility
- Dredging assessment and management within the harbour
- Tower Stand assessment and procurement
- Harbour Interface Management





# SUPPORT/CLOSING GAPS

Bridging of identified gaps in service provision between packages through the provision of our 'Construction Support' package which encompasses the following workscopes:

- Marine Warranty Surveyor selection and management.
- Client Reps selection and management
- Marine Coordination procurement, establishment of the MCC and execution of MC operations
- Marine Works including TP Preparation prior to installation of the WTG and handover of the asset to O&M.
- Offshore Management of the Client Team ensuring an efficient and effective approach through alignment of contractors and activities.
- Assessment of buoyage requirements including Wave Rider, Cardinal and Mooring Buoys
- Jack-up, Floatel, Accomodation & CTV Selection and Procurement
- Guard Vessel and SOV management
- UXO Package management including Survey and Clearance
- TP snagging and defect rectification
- Management of Secondary Packages including SRL's, Davit Cranes and Anti corrosion Cathodic Protection
- Communication assessment, set-up and troubleshooting





# VALUE PROPOSITION





## VOS SHINE

### DP2 Geotechnical survey vessel

The VOS Shine is a Class 2 Dynamic Positioning (DP2) geotechnical survey vessel equipped with a proven motion-compensated single mast drilling rig mounted over a 4.8m by 3.0m centered well moonpool.

The vessel offers a range of drilling, sampling, coring, and insitu testing services via its HG30A Drilling Rig rated to a maximum load of 30 tons equipped with a Dando 1000 top drive power swivel. Or optionally from a wide range of portable seabed CPT systems.

The system is equipped with a heave compensator for a stable drilling operation and can carry up to 600 meters of standard 5-inch OD API drill pipes. An AP van den Berg WISON downhole CPT system is also available to undertake PCPT operation in real-time with a maximum testing depth capability of 300 meters below the seabed.

The Lloyds classed VOS Shine is the perfect solution to undertake geotechnical survey drilling operation in support of the following activities:

- Geotechnical investigation for windfarm foundation design and analysis.
- Geotechnical survey for offshore hydrocarbon exploration and development.
- Shallow gas investigation including very deep pilot holes.
- Geohazard survey for exploration Jackups emplacement.
- Submarine cable and pipeline route survey.





# Vessel details

GENERAL	
Year Built	2012
Place Built	Fujian
Flag	Faroe Islands
Port of registry	Breskens
Call Sign	PCNU
IMO Number	9601510
Class Lloyds	100 A1 Offshore Supply Ship LMC, DP(AA)/ SPS, DPS-2
ERN Number	93.91.52.52
MMSI Number	246060000

PRINCIPAL DIMENSIONS	
Length Overall	60.25 m
Length B.P.P.	52.20 m
Beam Moulded	14.95 m
Depth	6.10 m
Draught Summer	4.6 m
Gross Registered Tonnage	1794 t
Net Tonnage	538 t

MACHINERY & PROPULSION	
Main Propulsion	2 x Caterpillar 1920kW with CPP
Forward Thruster(s)	2 x CPP 390 kW Tunnel
Aft Thruster	1 x FPP 390 kW Tunnel
Bollard Pull	15 MT

TANK CAPACITIES	
MGO	481 m <sup>3</sup>
Potable Water	455 m <sup>3</sup>
Water ballast	901 m <sup>3</sup>
Heeling tanks	2 x 37 m <sup>3</sup>

PERFORMANCE	
Full speed	13.5 knots
Eco speed 11.5 knots	11.5 knots

ACCOMMODATION	
Total Accommodation	49
Gym	1
Recreation Room	1
Smoking Room	1
Offices	2

COMMUNICATION FACILITIES	
Satellite communication	2 x KVH Satellite system S6 (2048 / 512) VOIP phone system
GMDSS	A1, A2 & A3

WINDPAL CO. LTD.	
Le Gratteciel Build. 1-7F, 6-20-1 Shinbashi, Minato-ku, Tokyo 105-0004 Japan	
Office: +81-3-6452-8631 Fax: +81-3-6452-8630	
Email: info@windpal.co.jp	

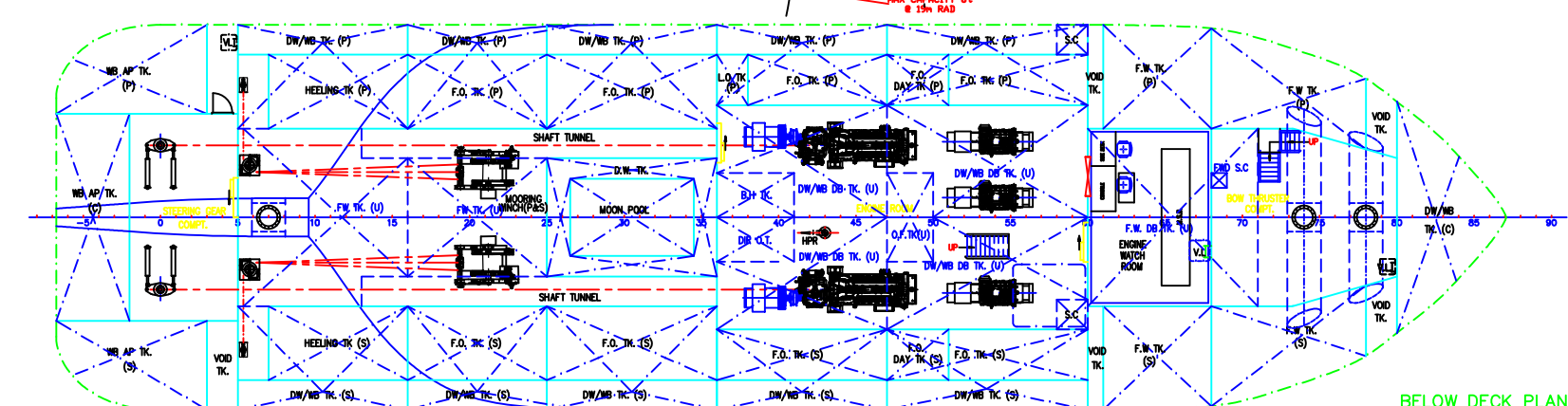
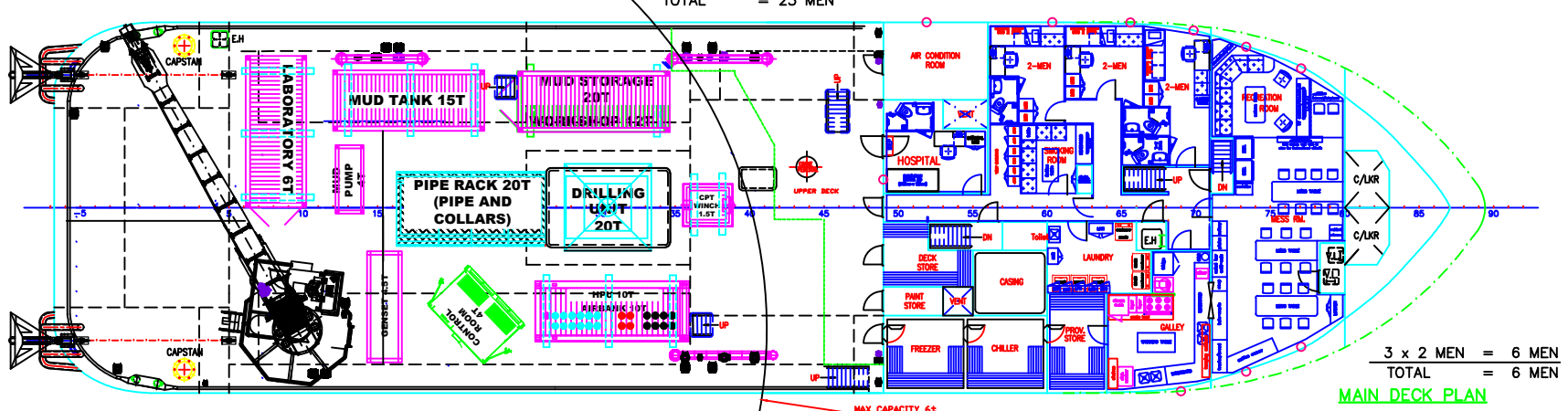
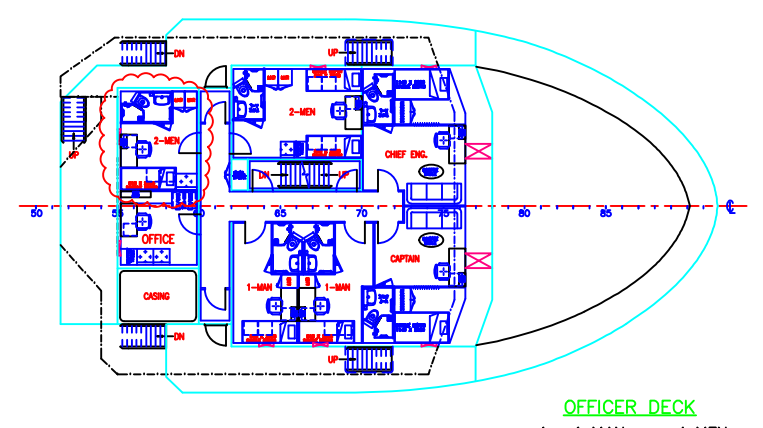
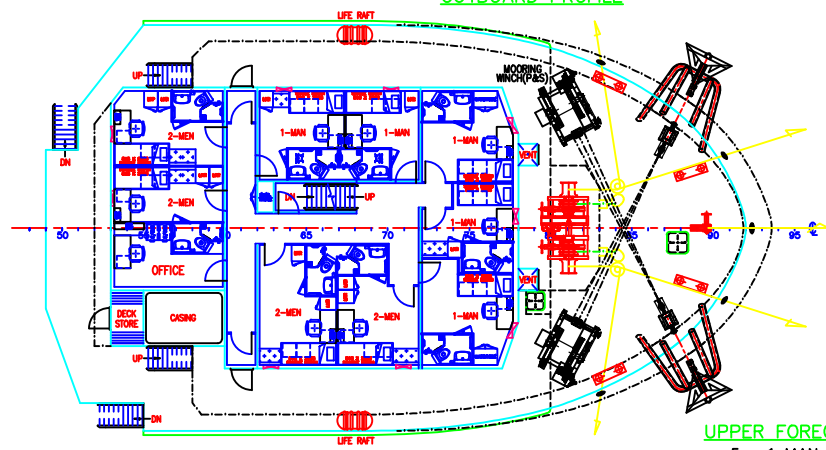
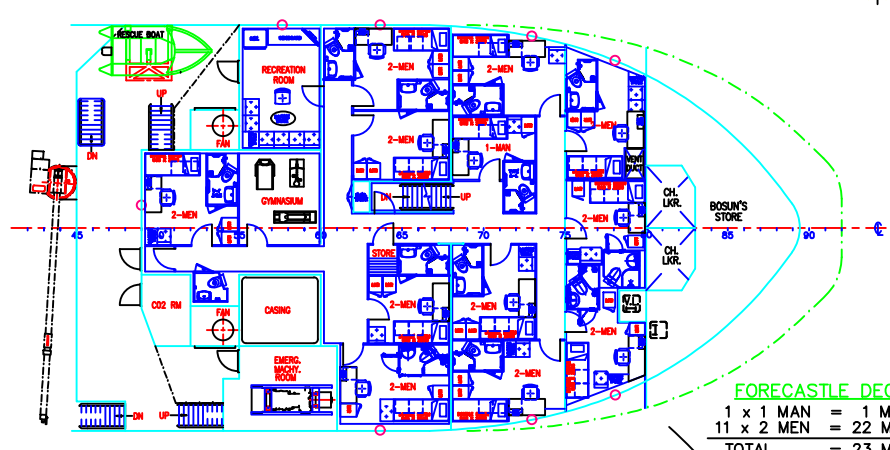
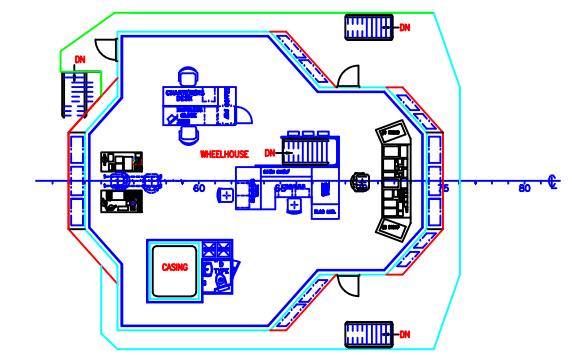
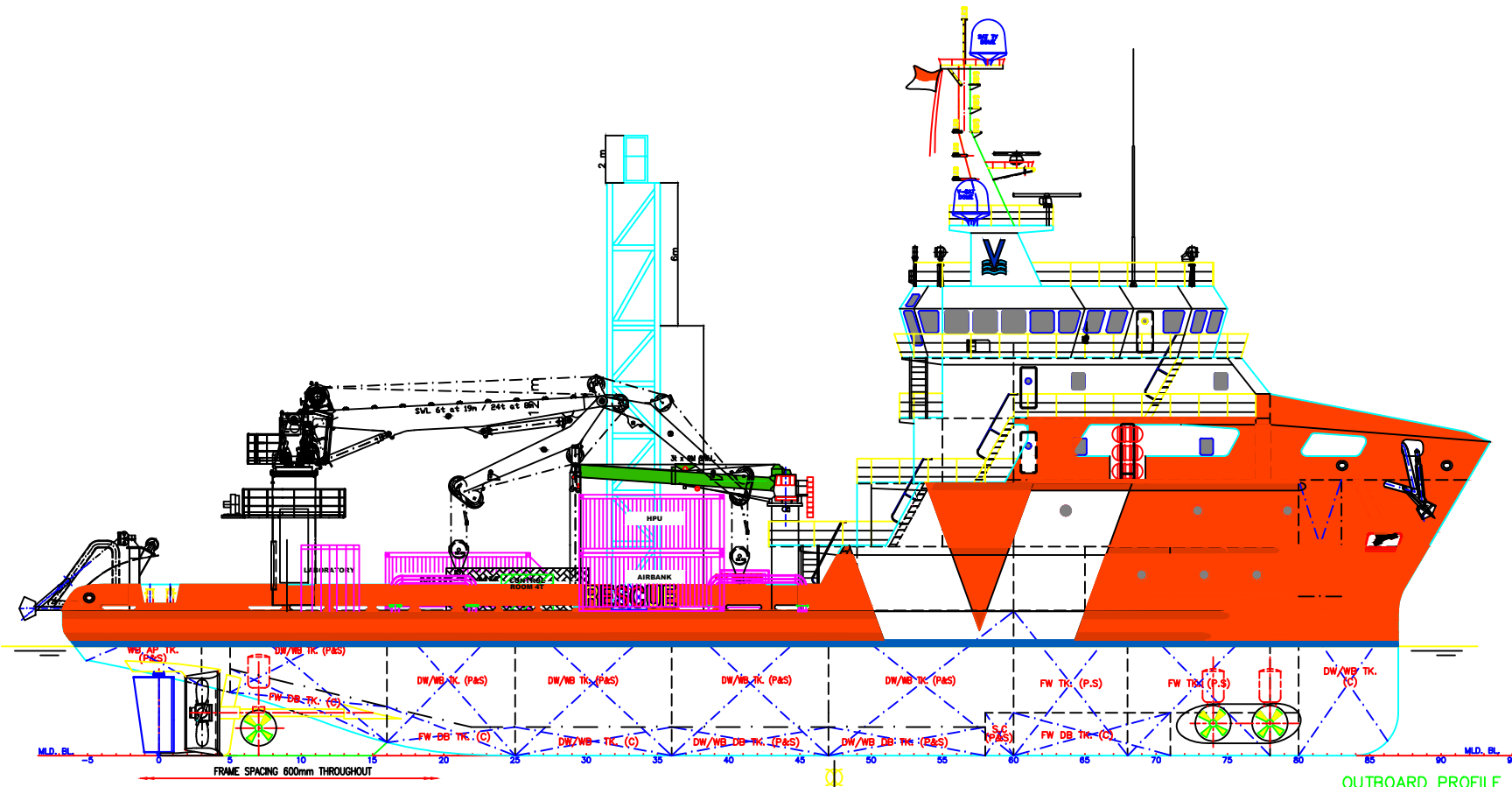
DYNAMIC POSITIONING SYSTEM	
DP Class	Class 2, LR
DP computer system	K-POS DP 21
MRU	Seatex 2 x MRU-D + 1 x Seatex MRU-2
DGPS	1 x DPS 110, 1 x DPS 112
Hipap	Kongsberg 350
Cy-scan	Cy-Scan
Taut wire	LTW Bandak MK15
Gyro Compass	3 x
Environmental Ref.	3 x Wind Sensor
Power supplies	UPS
DP Auto Position	Yes
Survey system	Viking navigation with HPR interface

4 POINT MOORING SYSTEM	
Winches	MacGregor
Type	Hydraulic
Pull Capacity	35 ton 1st Layer - 60 t holding power
Wire diameter	38 mm
Wire capacity each winch	1200 m
Special Features	Wire Length & pull force indicators
Anchors	4 x High holding Delta Flippers 3 MT

DECK AREA AND SERVICES	
Clear Deck Space	330 m <sup>2</sup>
Deck strength	7 MT / m <sup>2</sup>
Moon Pool	4.8 x 3.0 m
Port Connections	1 x 63A (440V, 3 phase, 60 Hz)

CRANE LIFTING EQUIPMENT	
Main Crane Starboard side	SMST knuckle boom
Main hoist wire length	190 m / 30 mm diam.
Max outreach SWL :	Single hoist 6 t @ 19 m Double hoist 12 t @ 19 m Double hoist 24 t @ 8 m
Service Crane Port side	3 t @ 9 m

GEOTECHNICAL CAPABILITIES	
Drilling System	
Derrick Height	20m
Draw works	GearmaticGH20
Top drive	Dando1000
Heave compensation	3m stroke
Mud pumps	1 x Gardner Denver FXD172 Duplex
Mud tanks	1 x 6,000 litres 1 x 3,000 litres
Drill string	9.5m ea at 5" API with 4" ID
Seabed frame	10t.
<b>Downhole Sampling and Testing</b>	
Wireline PCPT	1m/3m WISON-APB 660m umbilical
Sampling	1mShelbysampler
Rock coring	IDS Wireline
<b>Geotechnical Laboratory</b>	
Photography	LaboratoryVane
Sample description	Torvane
Moisture content	Pocket Penetrometer
Bulk/dry density	UU Triaxial



# "VOS SHINE"

## PRINCIPAL DIMENSIONS

LENGTH (O.A.)	59.250 M
LENGTH (W.L.)	56.000 M
LENGTH (B.P.)	52.200 M
BEAM (MLD.)	14.950 M
DEPTH (MLD.)	6.100 M
DESIGN DRAFT	4.600 M
FUEL OIL	535 M <sup>3</sup>
FRESH WATER	455 M <sup>3</sup>
DRILL WATER / W.B.	900 M <sup>3</sup>
HEELING WATER	73 M <sup>3</sup>
CLEAR DECK AREA	375 M <sup>2</sup>
DECK CARGO (DECK LOADING = 7T/M <sup>2</sup> )	200 TONS
MAIN PROPULSION ENGINE	2 x 2575 BHP
SPEED (TRIALS)	13.0 KNOTS
COMPLEMENT	50 MEN

NO.	REMARKS	OWNER	DATE
11	REMARKS OWNER	CB	01.03.13
10	UPDATE	CB	27.02.13
9	AMENDED ACCORDING TO YARD'S NEW ARRANGEMENT.	SZ.YU	28.10.10
8	AMENDED BY YARD'S & CLASS' COMMENTS.	SZ.YU	19.09.10
7	AMENDED BY KCM HULL TEAM & YARD'S COMMENTS.	SZ.YU	17.08.10
6	AMENDED BY KCM HULL TEAM.	SZ.YU	23.06.10
5	AMENDED BY KCM HULL TEAM.	SZ.YU	10.06.10
4	AMENDED BY KCM HULL TEAM.	SZ.YU	30.04.10

CONSULTANT

15, HILLVIEW TERRACE, SINGAPORE 669226  
TEL: 67753383 (6 LINES) FAX: 67753788  
EMAIL: khamchuan@kcm.com.sg

PROJECT: **59m SUBSEA SUPPORT VESSEL**

## GENERAL ARRANGEMENT

CLASSIFICATION	HULL NO.
hcKOH	DN59M-91/92
16-12-09	1:150
KCM/Q621-G1	11

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WE LOOK FORWARD TO  
SUPPORTING YOUR BUSINESS



**WINDPAL**

PROVEN OFFSHORE WIND SOLUTIONS

