



# VAISALA

## 30+ ways wind industry players are choosing WindCube® Offshore lidar

Vaisala WindCube® Offshore gives wind energy farm developers and operators the power of the industry's best vertical profiling lidar, with additional ruggedness and suitability for harsh marine environments. But the advantages of WindCube Offshore go much further.

Wherever it is used – floating buoys, platforms, vessels and more – WindCube Offshore is widely accepted by international standards and guidelines and provides accurate, bankable data to move your project ahead. Here are 30+ reasons the industry is choosing WindCube Offshore.

## 1 Proven benefits and superior metrology of pulsed technology

- Measurements from 40m to 300m
- Up to 20 user-defined heights (range gates) measured simultaneously
- Fast sampling for high number of measurement heights
- Constant spatial resolution throughout the entire wind profile (i.e., probe volume stays the same through the measurement range)
- High precision and accuracy at higher altitudes using pulsed technology
- Operates without moving mechanical parts
- Insensitive to high cloud layers
- Accurate wind direction over a 0-360° range; not vulnerable to possible 180° error
- Vertical beam allows for direct measurement of the vertical wind speed and improves Turbulence Intensity (TI) assessment
- Hybrid wind reconstruction algorithm combines scalar and vector averaging for the highest possible accuracy and lowest classification uncertainty at modern hub heights



WindCube Offshore on the shore. [See how Triconiti is confidently conducting accurate WRA campaigns in the Philippines.](#)

## 2 Rugged and validated for reliability where you need it



WindCube Offshore on a fixed offshore platform installation. [See how Mainstream Renewable Power is conducting more accurate offshore WRA campaigns in Asia.](#)

- Marinized, robust, corrosion-resistant IP67 casing meets offshore requirements, designed and validated according to the IEC 60529 standard
- Marine atmosphere tested according to IEC 60068-2-52 (dry/wet salt spray), 30 cycles
- 100% immersion production test
- Gasket thickness, additional sealing, marine silicon
- All stainless steel parts are passivated 316L
- Sunshade and bird spikes for added protection
- Low power consumption (45 W nominal)
- Small footprint, fixed base and more locks and belts for easy integration on Floating Lidar Systems (FLS), offshore platforms and other small spaces

## 3 Unmatched global service and support capabilities



WindCube Offshore mounted on a buoy. [See how AKROCEAN is enabling new offshore development in France.](#)

- Includes WindCube Insights – Fleet cloud-based fleet management software for remote monitoring and data storage
- Satellite communication available for remote communication redundancy
- Geofencing solution for fixed offshore installations
- 3-year warranty, extendable twice
- 3-year preventive maintenance cycle
- Technical support with remote assistance and onsite help
- Onsite (onshore) intervention for maintenance is possible
- Extensive global network of trained partners who can provide power supply solutions, lidar import and transportation support, system installation and integration support, local market knowledge, technical and engineering support, and maintenance and repair

# 4 Track record of excellence

- Stage 2 of the Carbon Trust OWA Roadmap with several FLS integrators
- Further reduced uncertainty in wind measurements can be achieved by combining WindCube Offshore (fixed or on a buoy) and WindCube Scan Dual Lidar Ready solution
- Vaisala is a member of the IEC 61400-50-4 working group, which aims to develop guidelines for floating lidar wind measurements
- A few customers who choose WindCube Offshore: Beach Energy, DNV, EDF Renouvelables, 2EN Enallaktiki Energiaki, GPI, Kjeller Vindteknikk, Mainstream Renewable Power, Orsted, OÜ Utilitas Wind, Universidade Federal Do Rio Grande Do Sul (UFRGS), Skyborn Renewables, UL Solutions and many more



[Learn more about WindCube Offshore: The vertical profiling lidar for Floating Lidar Systems \(FLS\) and offshore platforms.](#)



# 5 Recent news: WindCube Offshore advances the industry



- [BlueFloat Energy New Zealand](#): Beach Energy Ltd and their Kupe JV partners Genesis and NZ Oil & Gas successfully installed a LiDAR on their Kupe platform 30 kilometres off the South Taranaki coast
- [Copenhagen Offshore Partners \(COP\)](#): Ichnusa Wind Power Project launches floating lidar campaign
- [Taranaki Offshore Partnership \(TOP\)](#): First piece of potentially NZ's first offshore wind farm to be installed off Patea coast
- [Mainstream Renewable Power](#): Ben Tre offshore wind project reaches lidar installation milestone
- [Pacific Northwest National Laboratory](#): PNNL Successfully Deploys Floating Data Collection Buoy in Hawai'i
- [Kjeller Vindteknikk](#): Offshore lidar measurements for Korsnäs wind farm in Finland have started

# 6 Trusted global network of Floating Lidar System integrators



Several wind energy FLS integrators trust WindCube Offshore wind lidar, and the list is growing:

- Accurasea
- Axys Technologies
- AKROCEAN
- Blue Aspirations
- Fugro
- Ocergy
- Orsted