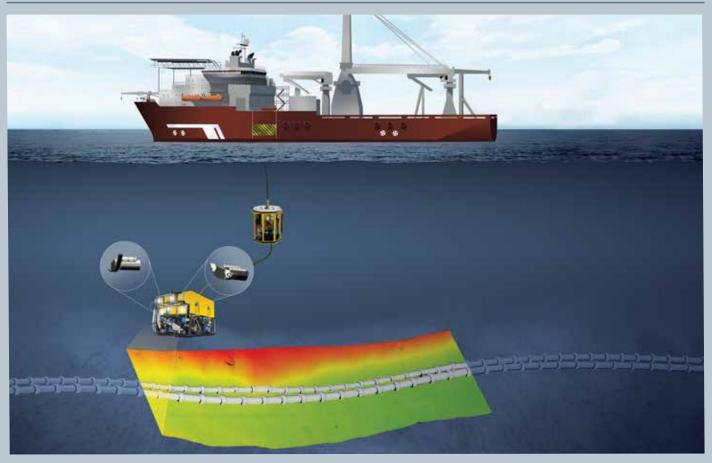
## **Cable and Pipeline Inspection Surveys**



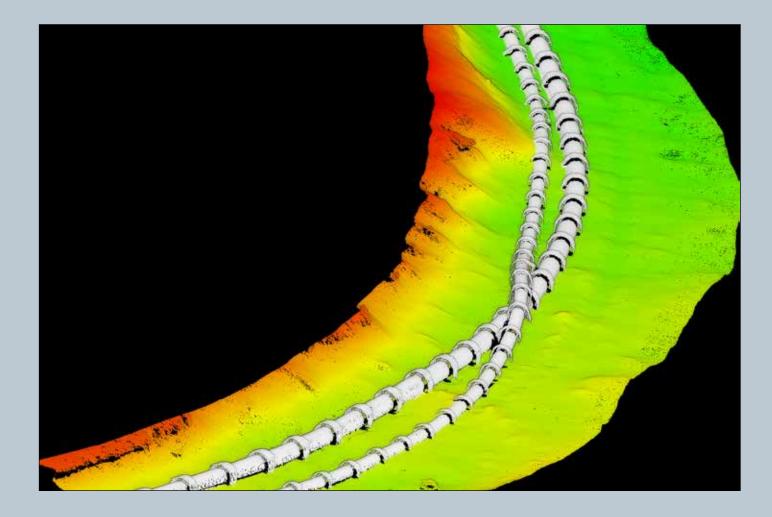
# NORBIT

### NORBIT WINGHEAD Sonars for ROV Based Cable and Pipeline Surveys

Multibeam surveys are a key component in the lifecycle of offshore energy from pre-construction site surveys to ongoing inspection and maintenance. Typically located in deeper water, surveys in the Energy Industry require the use of remotely operated vehicles (ROV's). With its ultra-high performance, low power usage, and lightweight size, the NORBIT WINGHEAD multibeam sonar is setting a new standard for ROV based multibeam surveys.



Each WINGHEAD sonar has full frequency agility between 200-700kHz and generates 1024 true beams. This ensures that operators have the greatest detail of subsea assets, and the surrounding seabed. The NORBIT WINGHEAD allows the user to collect ultra-high resolution bathymetry and backscatter without any compromises in quality, and supports 5 backscatter outputs as standard. The WINGHEAD sonar allows survey operators to meet and exceed even the most demanding survey specifications



#### INSTALLATION AND OPERATION

The WINGHEAD sonar is not just easy to install but easy to operate and is perfectly positioned as the industry transitions into remote operations. NORBIT has worked hard to ensure operation is intuitive and simple with minimal operator interaction. Data outputs are fully compatible with existing survey software packages. The WINGHEAD sonar utilizes cutting edge signal gain compensation and adaptive thresholding, allowing the operator the freedom to monitor other survey systems.

#### PERFORMANCE

All NORBIT sonar systems utilize a cylindrical array with a frequency modulated (FM) transmission. Due to the system design and the latest array technology, NORBIT systems provide strong signal to noise ratio characteristics allowing consistent repeatable and accurate outer beam data over wide swath coverage angles – even in noisy subsea environments. NORBIT systems are also characterised by maintaining the highest sounding resolution; object detection capability and data density throughout the entire swath, utilising both the standard bathymetry and backscatter deliverables.



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