

CASE PRYSMIAN GROUP: INCREASED CABLE-LAYING SPEED WITH WÄRTSILÄ SOLUTION

ENERGY
ENVIRONMENT
ECONOMY



Raul Gil Boronat
Chief Operating Officer Submarine
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In 2014, the Prysmian Group selected Wärtsilä to supply the equipment needed to convert the Group's Cable Enterprise barge into an independently operating cable-laying vessel, meaning that the barge would operate without the need of tugs. Wärtsilä's equipment delivery included additional engines and 8 MW of power generation for six new thrusters, a switchboard, and power management systems for dynamic positioning capabilities.

– We preferred a single supplier and selected Wärtsilä for this project, because their complete solution contained exactly what we required. Due to their proven capability and expertise in this area, Wärtsilä was able to tailor a highly competitive solution, says Raul Gil Boronat, Chief Operating Officer Submarine at Prysmian Group.



The Prysmian Group is the world leader in the energy and telecom cable systems industry. With more than 130 years of experience, sales of nearly €7 billion in 2014, some 19,000 employees across 50 countries and 89 plants, the Group is strongly positioned in the high-tech markets and offers the widest possible range of products, services, technologies and know-how. The Cable Enterprise vessel became part of the Group's assets in November 2012.

The Prysmian Group wanted to enhance its offering of turnkey submarine power cable installation services and decided to convert

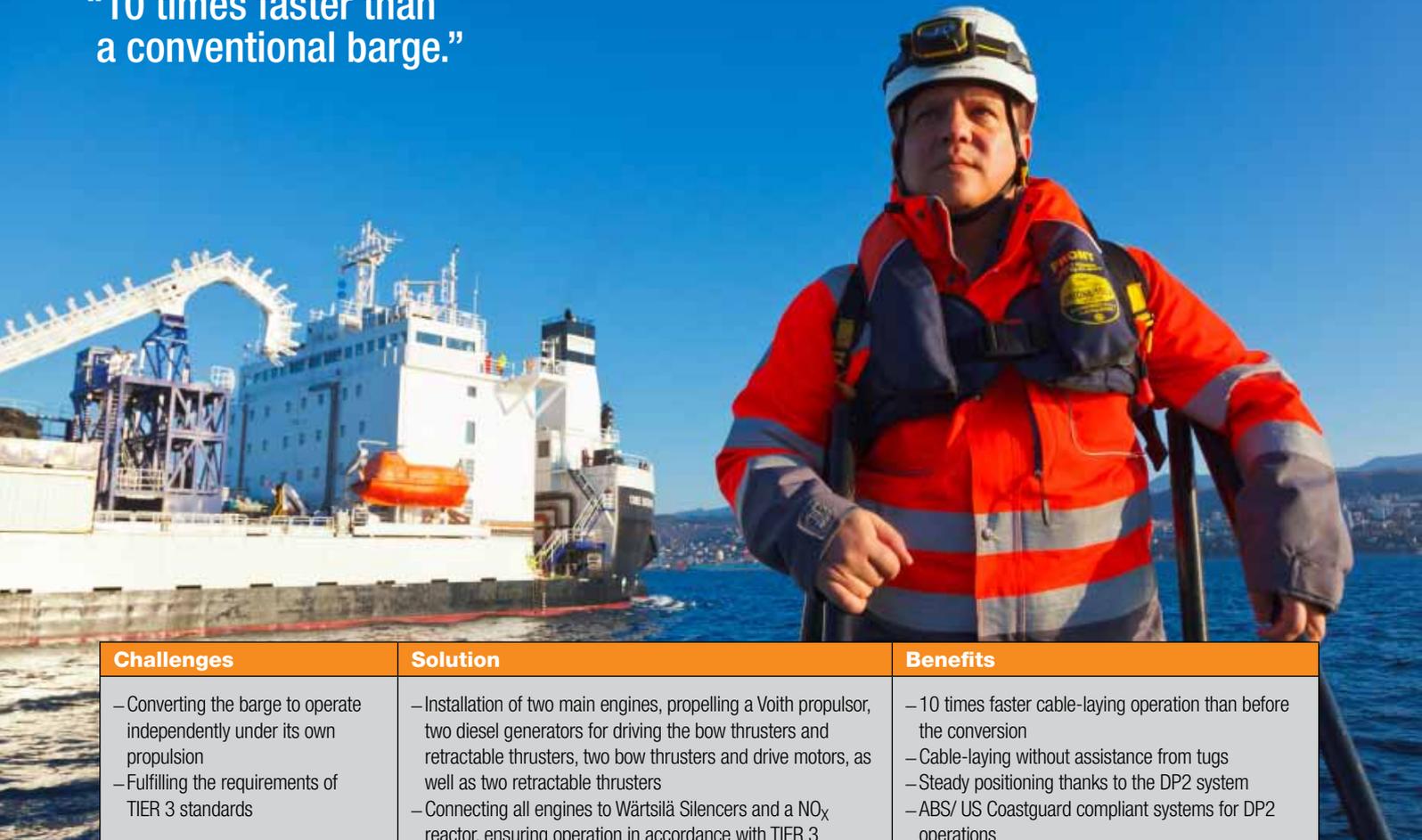
the Cable Enterprise tugged barge into an independently operating cable vessel. Wärtsilä was selected as the successful bidder for this project due to the company's proven solutions and ability to understand the requirements of the Prysmian Group.

Following the conversion, the Cable Enterprise will start operation on an EXXON field off the west coast of the USA in early summer 2015. This area has very strict environmental regulations and the production fields need to have a shore power connection in order to reduce the NO_x and CO₂ emissions from the production fields. ■ ■ ■



WÄRTSILÄ

“10 times faster than a conventional barge.”



Challenges	Solution	Benefits
<ul style="list-style-type: none"> – Converting the barge to operate independently under its own propulsion – Fulfilling the requirements of TIER 3 standards 	<ul style="list-style-type: none"> – Installation of two main engines, propelling a Voith propulsor, two diesel generators for driving the bow thrusters and retractable thrusters, two bow thrusters and drive motors, as well as two retractable thrusters – Connecting all engines to Wärtsilä Silencers and a NO_x reactor, ensuring operation in accordance with TIER 3 – Design, supply and commissioning of an integrated electrical and automation system consisting of switchboards, variable frequency drives, transformers, soft starters and power management systems 	<ul style="list-style-type: none"> – 10 times faster cable-laying operation than before the conversion – Cable-laying without assistance from tugs – Steady positioning thanks to the DP2 system – ABS/ US Coastguard compliant systems for DP2 operations – Ability to operate in areas covered by TIER 3 standards

■ ■ ■ **WÄRTSILÄ'S SOLUTION EXCEEDS THE CUSTOMER'S REQUIREMENTS**

The challenge for Wärtsilä in this project was to convert the barge for independent operation, i.e. operation without any assistance from tugs. Moreover, the converted barge must be able to use its own propulsion for steady positioning and still fulfil strict environmental requirements.

The conversion took place at the Victor Lenac yard in Croatia. Wärtsilä delivered two Wärtsilä 26 main engines, two diesel generators, two bow thrusters and drive motors, two retractable thrusters, and integrated electrical and automation control systems. Furthermore, as part of the scope of

delivery all the engines had to be connected to Wärtsilä Silencers and a NO_x reactor, which would ensure that the vessel can operate with emissions well below TIER 3 standards.

– In a project of this magnitude, with many different stakeholders involved and tight deadlines, the schedule is always a challenge. But in this project, all the parties worked as a team to achieve a common success, says **John Chester**, General Manager, Services Sales, Wärtsilä UK.

INCREASED CABLE-LAYING SPEED

The entire vessel was upgraded during the conversion project. This work included new accommodation and operations decks as well

as a new cable tank for future HVDC projects. The ship's ability to operate in shallow waters remains.

After the conversion of the barge into a ship with DP2 capabilities, the vessel will no longer need tugs during cable-laying. In the future, positioning will be managed with the help of the thrusters delivered by Wärtsilä.

– This conversion will allow the Prysmian Group to enhance its offering of turnkey products and services with the ability to offer cable-laying services at a speed which is 10 times faster than a conventional barge, concludes Raul Gil Boronat.