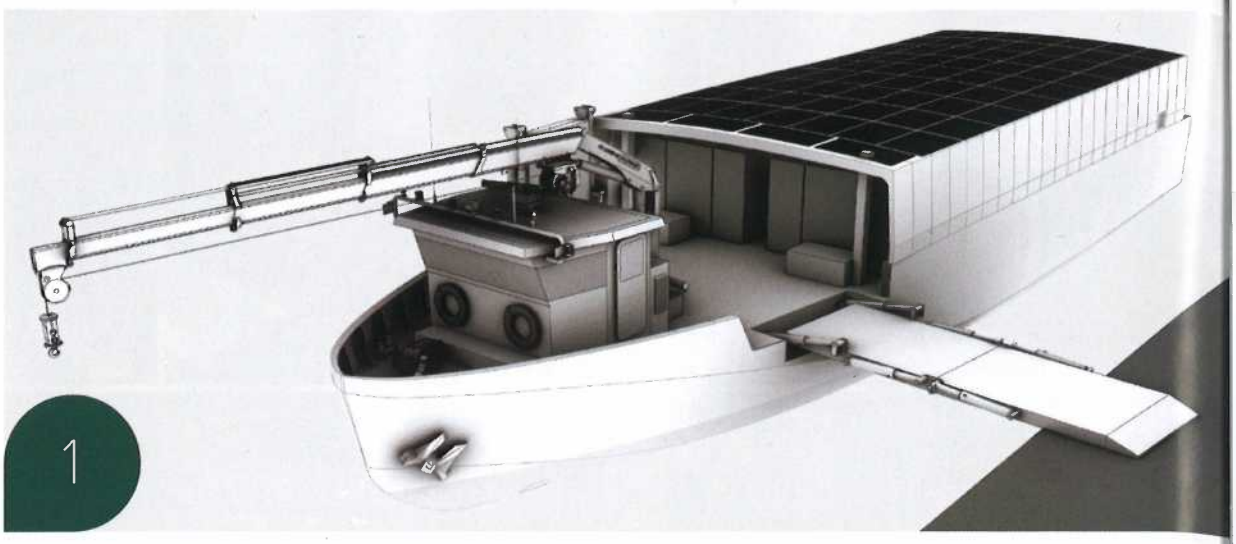


1. The cargo vessel is powered by a propulsion system from Transfluid

Zero-emission cargo vessel

An electric propulsion system powers a new vessel for use on French rivers

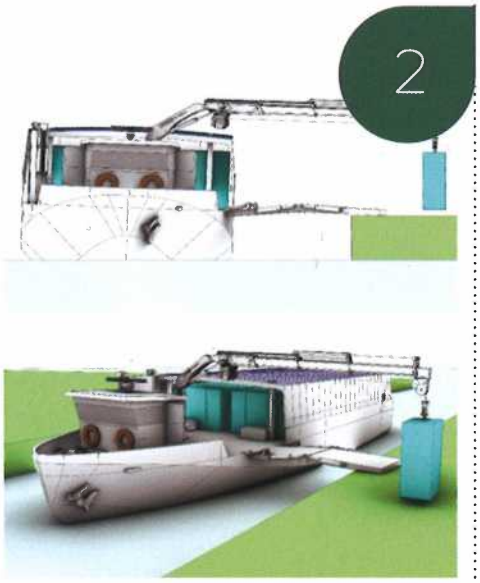
WORDS: **ELISA PAVESI**

TRX Marine shipyard has been commissioned by the French shipping company Ecofluv for the construction of an innovative river cargo vessel, which can operate in completely electric mode with zero emissions.

The ship's design was developed by French company Arco Marine and TRX in collaboration with Ecofluv, and is the first of its kind. It is outfitted with batteries, with a compact and intelligent electric propulsion system supplied by Transfluid, and is able to navigate without any emissions. These systems provide the power needed for vessel propulsion and cargo-handling operations. The vessel is equipped with modern equipment for a range of operations. In addition to the main battery system for the thrusters there are solar panels for recharging, and the stored energy is also used to power the onboard services and other auxiliary systems. Thanks to this, the ship can run solely on electricity supplied by batteries, with no diesel generators in operation.

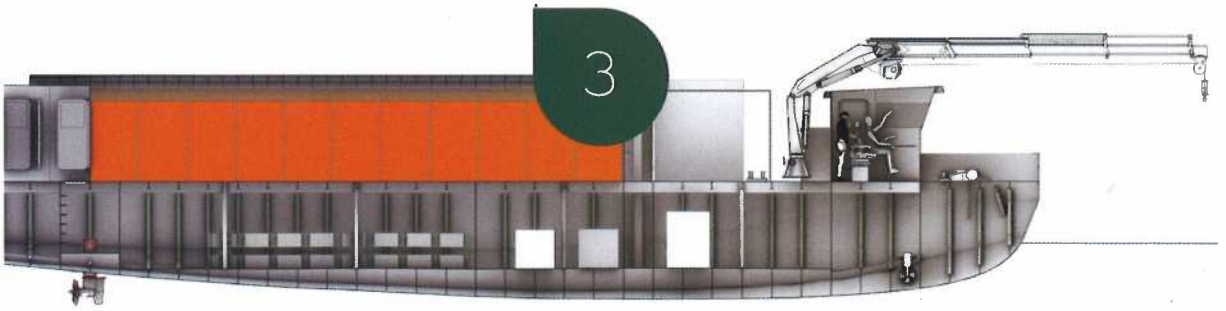
The boat can run efficiently and quietly in electric mode and switch quickly to operation with diesel generators in an emergency. Lithium batteries can also be charged from a shore power connection. Transfluid's fully integrated turnkey solution uses a power management system that communicates with all components via a CANbus protocol.

The system's batteries, electric motors and drives are all homologated and certified with DNV type approval.



Electric propulsion system

The Transfluid supply includes two electric azimuth thrusters that produce 75kW at 1,500rpm, a double hydraulic power unit for the wheelhouse, two independent battery banks of 163kWh each, two independent 44kW DC-AC converters, a bow thruster and six battery chargers - for recharging on the quay and during navigation. All of this will be combined with two 45kW diesel generators that can be used in an emergency during navigation or to recharge the batteries if shore power is not available. The scope of supply includes all signal cables and main power cables. The system is completed by the displays, the throttles for controlling the azimuth thrusters and engines, the ignition keys and all the necessary electrical boxes.



2. The ship's batteries can be charged via a shore power connection

3. The propulsion system includes two electric azimuth thrusters