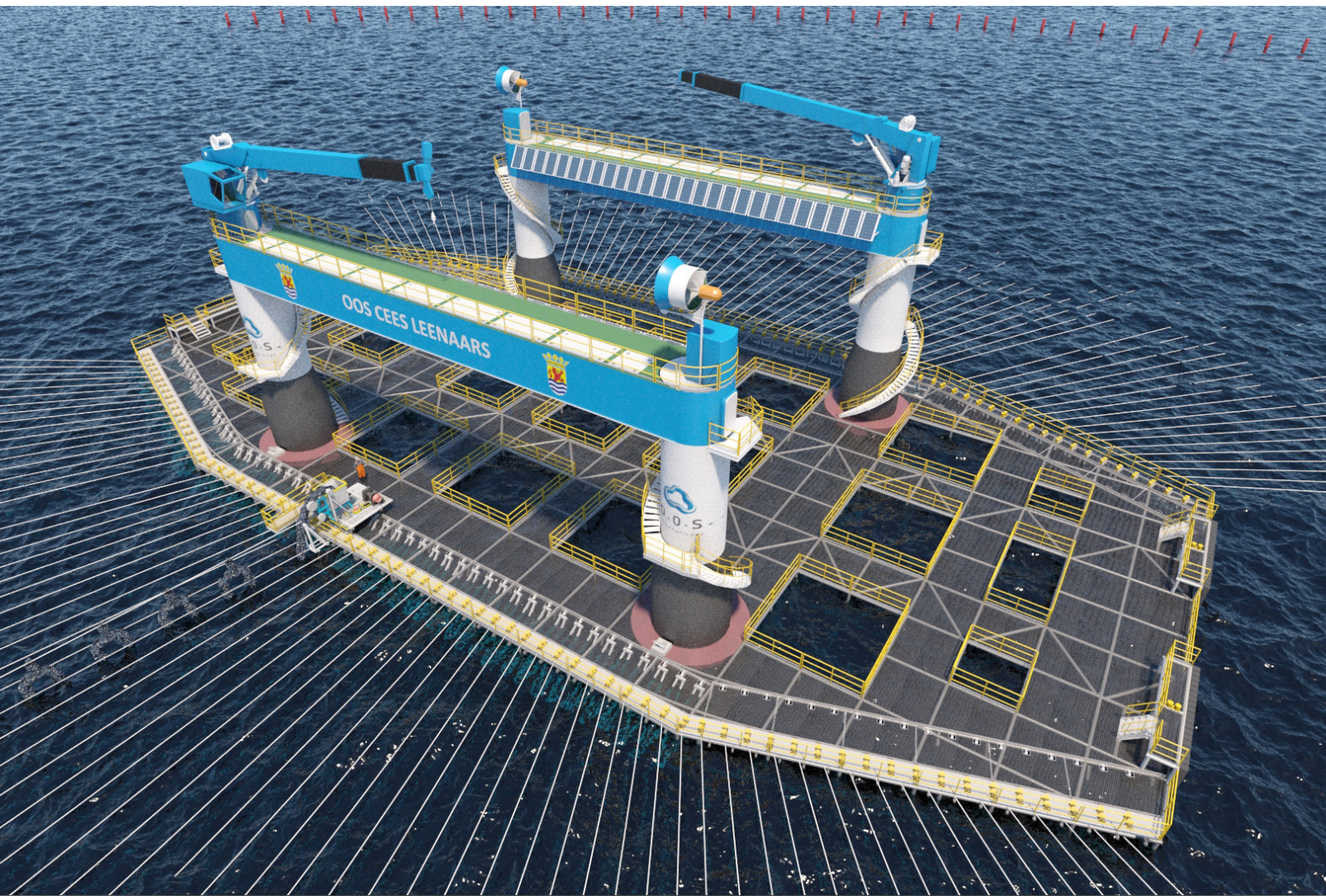




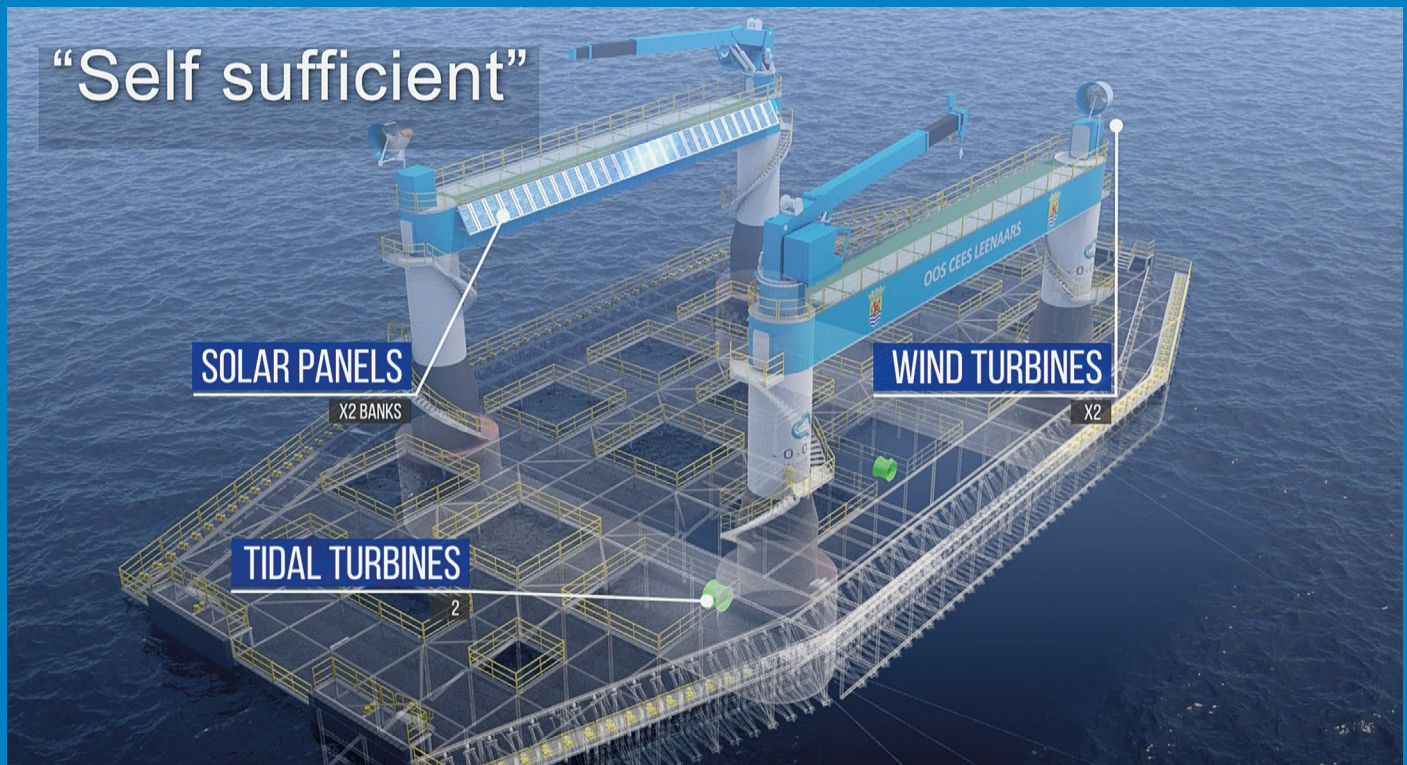
OOS SMF B.V.

SEMI SUBMERSIBLE MUSSEL FARM



OOS CEES LEENAARS

"Self sufficient"



OVERVIEW

Traditionally, the cultivation of mussels takes place in shallow waters such as the Oosterschelde and the Waddenzee, where two cultivation methods can be distinguished, on-bottom culture and longline (rope) culture.

Due to changes in natural conditions and regulations, the volume in production is declining, and new, innovative possibilities have to be developed. The North Sea offers space and the necessary food sources for the cultivation of mussels in open seas. However, the traditional breeding methods are not suitable for this environment.

With its knowledge and experience in offshore technology, OOS SMF B.V., part of the OOS Group, offers an innovative solution.

In collaboration with the shellfish sector and mussel farmers, OOS SMF B.V. has developed a Semi-submersible Mussel Farm, suitable for growing mussels based on longline (rope) culture on open seas.

By applying submersible technology, the breeding and harvesting location is protected against waves and storms and the best suitable location in deeper waters can be used for large-scale cultivation of mussels.

With this development, OOS SMF B.V. contributes to the maintenance and expansion of the shellfish sector. Multiple mussel farmers can use the SMF simultaneously and will receive technical and logistical support from OOS.

The cultivation and consumption of mussels makes a positive contribution to the food chain. Mussels are rich in protein and farming contributes to the reduction of CO2 emissions compared to livestock farming. With the development of the SMF, OOS is making an important and sustainable contribution to the shellfish sector, also by applying "green" technologies, such as solar and wind energy.

SSMF HIGHLIGHTS

- Semi-submersible Mussel Farm suitable for harsh environments offshore.
- New concept for setup mussel lines structure.
- Zero CO2 emissions by using renewable energy sources.

00S CEES LEENAARS

DIMENSIONS AND DRAFT

Dimensions

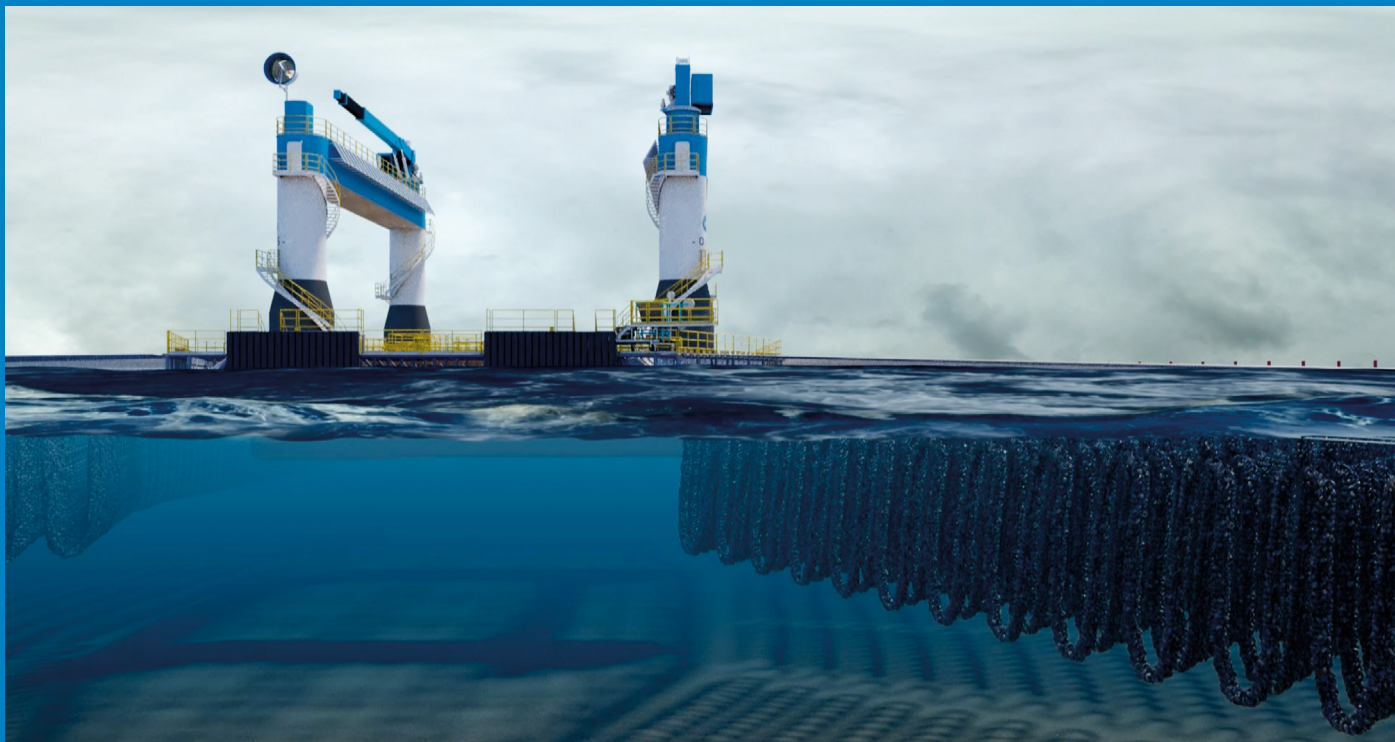
Length	: 72 m
Breadth	: 36 m
Depth (keel – deck)	: 6 m
Height bottom bridge above keel	: 17.5 m
Height bridge	: 2.5 m
Width bridge	: 3 m

Drafts

Transit/Maintenance draft	: 2.5 m
Operational draft	: 5 m
Design farming draft	: 9 m
Survival draft	: 11.5 m

CLASS NOTATION

Class	: ✕ABS A1 Fish Farm Installation Unmanned
Unit Type	: Ship-Shape Floating Aquaculture Installation
Remote control	: ✕AMCCU
Design Life	: HL30
Fatigue Life	: FL30
Rules for Materials and Weldings	: ABS
Design Loading Case	: 50 Years extreme of Wave; Wind and Current conditions
Fire Safety, Life Saving Appliances and Equipment	: ABS Rules for Unmanned Floating Offshore Installations
Electrical System	: Main and Emergency Solar + Wind Turbine Generator and Energy storage batteries
Emergency Stored Power	: Sufficient for operation of, at least: <ul style="list-style-type: none"> • 18 hrs of continues operation of Fire Pump • Fire Detection • Communication • PAGA System • Emergency Lighting • 4 hrs for perimeter signal lightings (navigation aids)





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.O.O.S.
international



revision 1.2

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