

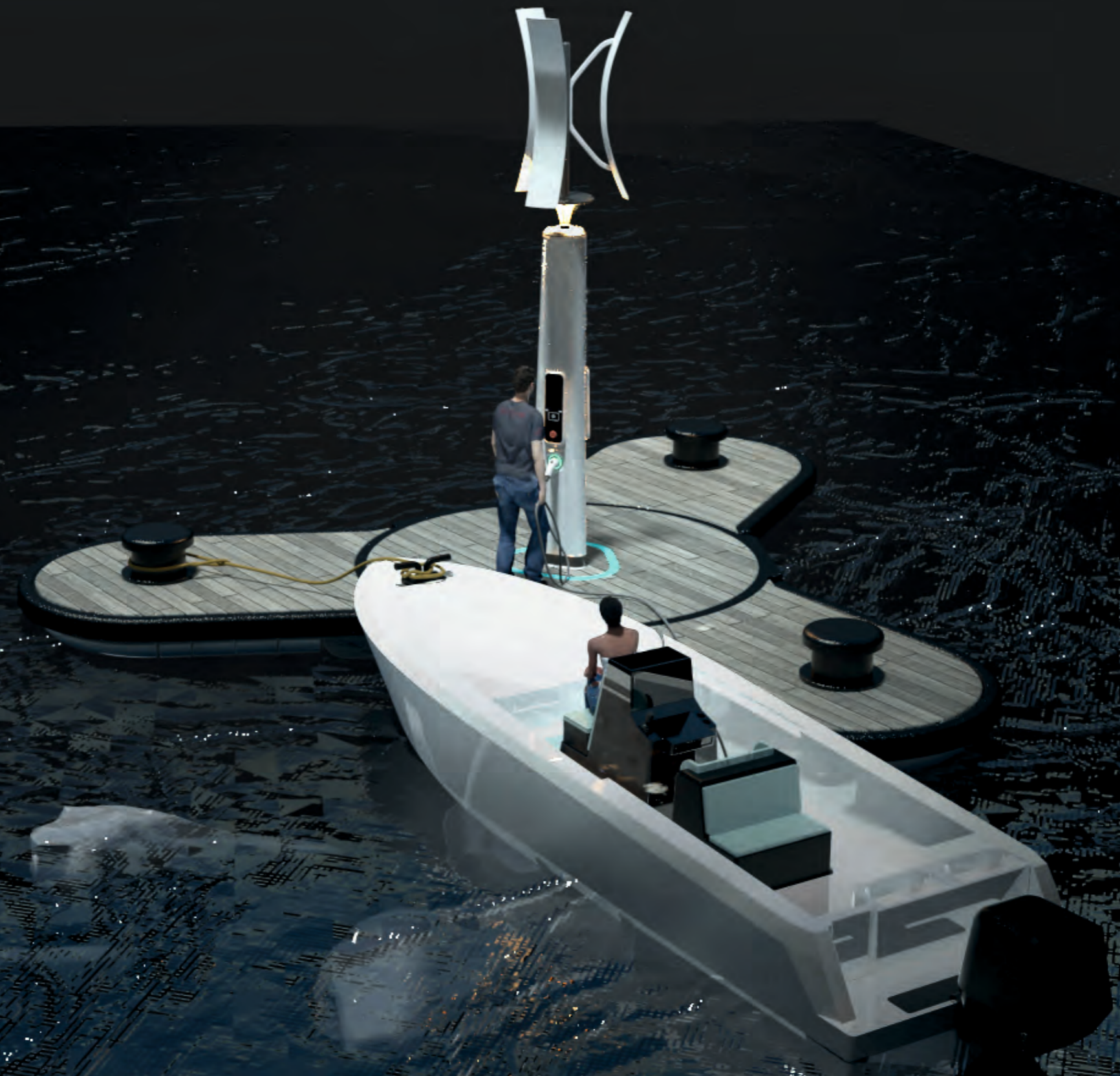


Fachhochschule Nordwestschweiz  
Hochschule für Gestaltung und Kunst

# E-HARBOUR

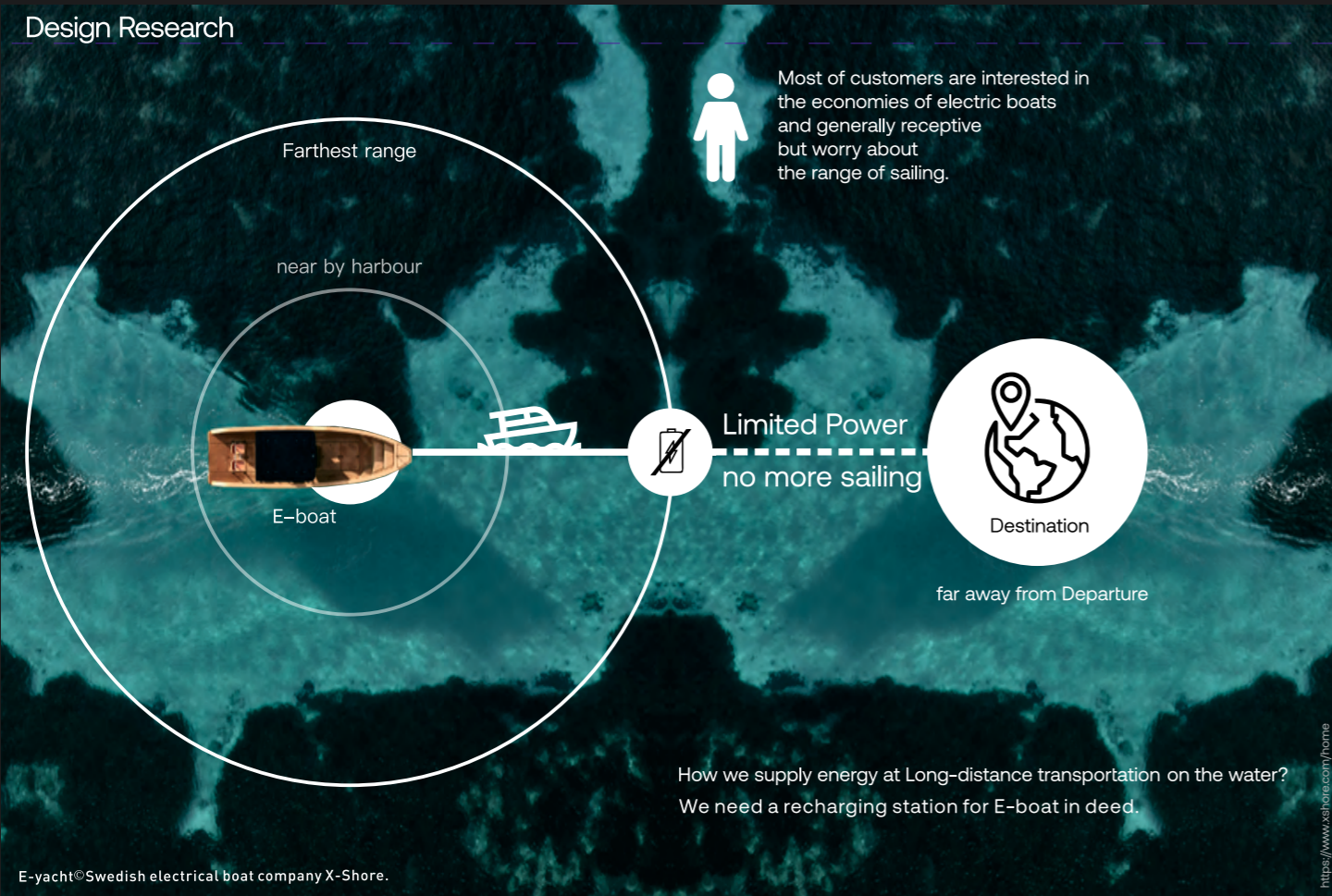
RECHARGE STATION SYSTEM  
ON THE WATER

Nowadays, electric yachts are more and more popular among consumers. But there isn't enough infrastructure to keep them on their range of journey. E-HARBOUR Water charging station provides an adequate clean energy supply for various water vehicles. And provide temporary berths for long charging and replenishment. The modular design provides Individual floating islands or groups in coastal communities. The construction principle of the Floating platform seems like a self-supporting space station.

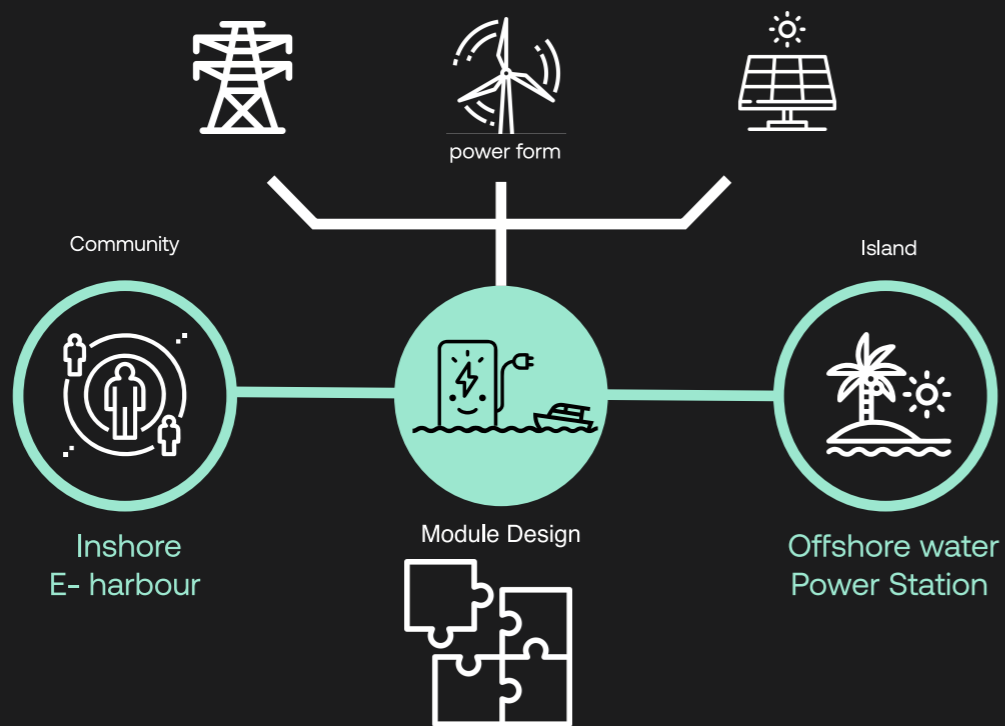


all  
this  
future

Design Research



How we supply energy at inshore haven and for the Long-distance transportation?



## NOW IS THE FUTURE

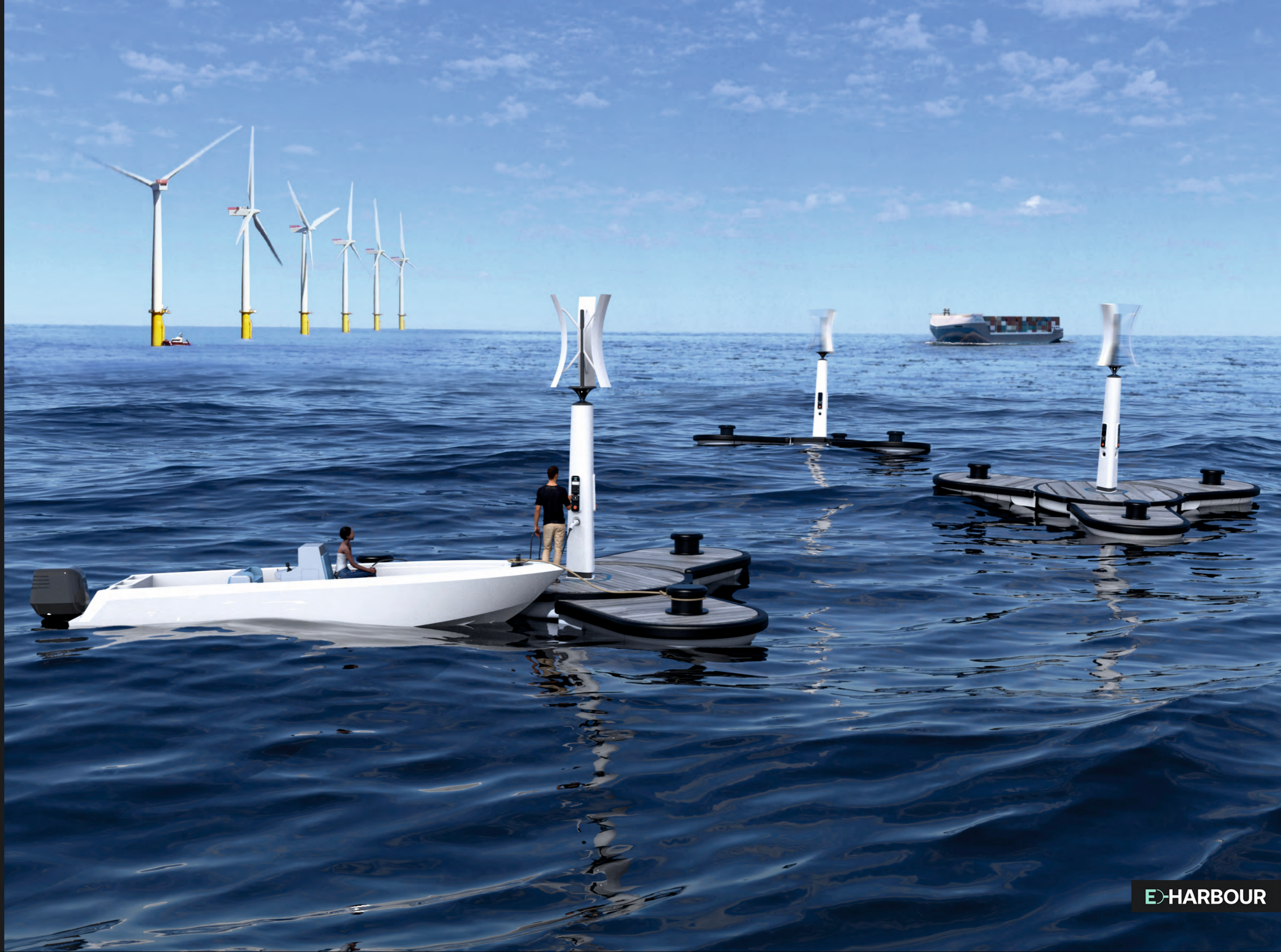
As the infrastructure on the water, this inshore/offshore charging equipment will be applied in various haven cities by water around the world. As a new market strategy, it is a response to rising water levels since the global warming for the future.



View of cell mode  
on the lake  
(off shore)



View of cell mode  
on the sea  
(off shore)





Fans (wind energy)

The effect of lighthouse

Bollard

Floating cone

Anchor



Start up the power station

Choose the program: long/ short Recharging



Charging now...

Display of Progress bar



The interface design follows the user-centred design method and is designed to complete classified charging management for different water vehicles. The user also can use a login card with some personal data to enter the system so that the charging station can identify the type of energy and charging time for the user's own device to recharge. About the timely feedback information, there are a screen and a display to present energy consumption, duration and cost. The animation design on the interface is convenient for users to reduce learning costs and operate faster. The plug seat adopts three-proof design standard and guarantees the user's safety.

E-HARBOUR Water charging station provides an adequate clean energy supply for various water vehicles. And provide temporary berths for long charging and docking places. The cell-modular includes a floating platform and a charging pillar which has three interactive screens for user's operation and also three plug seats. Especially at the top of the pillar, there is a reflective light like a lighthouse. The light from it can direct mariners to come here to charge (Lighthouse not only means the hop of life but also means the power of electricity). Usually, the recharge station can maintain the daily energy consumption by own wind power module. Otherwise, the modular principle of organization can provide individual floating islands or groups in coastal communities. The construction principle of the Floating platform seems like a self-supporting space station. Therefore, in this community, we can also add on some self-sailing power bank with solar power station to distribute energies.

TOUCH SCREEN

HARD PRESS-BUTTON

PAYMENT (UNTOUCHABLE)

EMERGENCY STOP

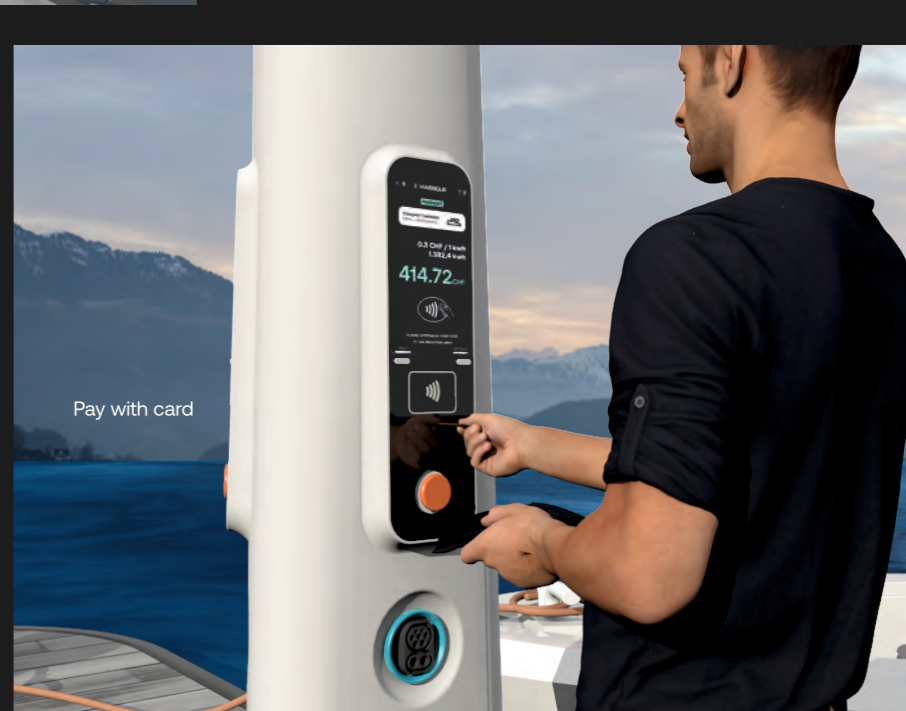
PLUG SEAT



Pull out the recharge-plug



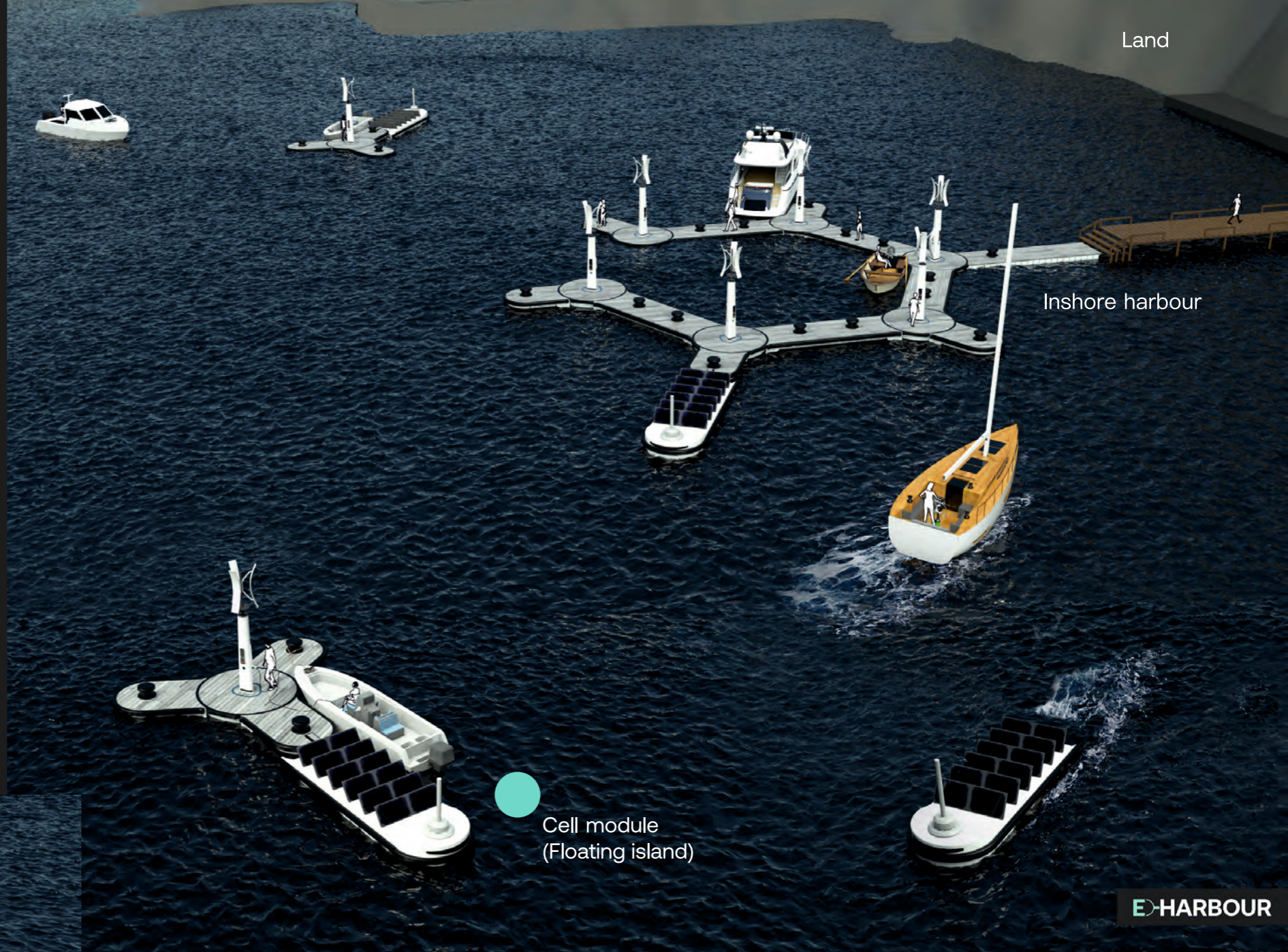
Pay with card



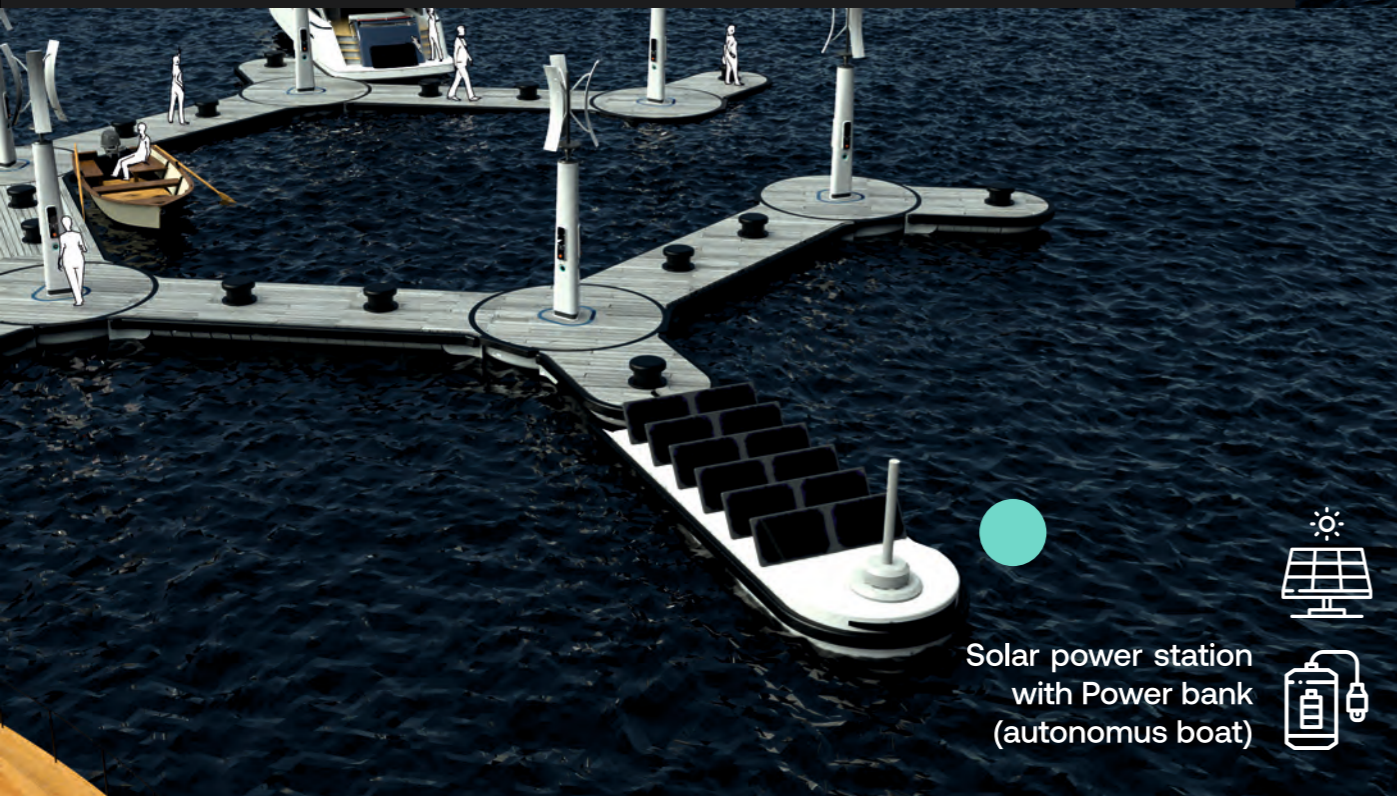
Community construction






Energy supply (charging) is a basic demand, and many service models can be followed at the same time. Just as gas stations now have special rest-stations, drivers can consume during the refueling period (kiosk or restaurant etc.). In addition, the floating platform also provides E-boat docking and charging space in the port. Shipowners can purchase fixed berths, or they can flexibly rent their own berths through the B2C platform. In addition, we also envisage sharing economy models, sharing berths or establishing shared ships. Because this energy supply platform allows us to associate more operational business models about building marine city in the future, and it is not limited to Switzerland, even any haven cities around the world.



Inshore harbour



Solar power station with Power bank (autonomus boat)  

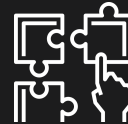
Cell module (Floating island) 

Business model to Support

Recharging


+


Docking place

Power + automatic service (like ATM) 

Long term / short term own Docking zone

New Platform create some B to C Business

Recharging time = service opportunity = private business chance (on boat or on land) 

Rent the docking zone to another user (sharing economy) 



Today's E-mobility industry has already fierce competition on the electric vehicle market. On the other hand, the green energy industry continues to support the rise of the electric mobility's market. We believe, the next 5 years is the golden development period for electric water transport and the market leader is consumer-grade private boats. But what has been overlooked? The charging equipment! They can extend the range of sailing for E-boat. We hope that this proposal will provide more efficient and convenient energy support for the green water transportation now, and also provide suggestions for the construction of a marine city in response to climate warming and rising water levels.

off shore

in shore

