

ENHANCING VIETNAM'S WATERWAYS

Make Vietnam's waterways the region's most safe,
efficient and sustainable transport corridor

PROSS


PORTPAY

OBJECTIVES

- Increased safety to minimize accidents and pollution
- Effectively manage traffic and infrastructure along the waterways
- Make waterways financially sustainable
- Marine environment protection & regeneration
- Benefits for Vietnam's economy and tourism

EXPERIENCE



PortPay is a global partnership that benefits from more than 30 years of experience in both the maritime and IoT sectors in more than 90 countries.

The PortPay concept is already fully developed and functional in the Netherlands.



City of Amsterdam



Rijkswaterstaat
Ministerie van Infrastructuur en Milieu

PROVEN CONCEPT

The Netherlands has approximately 5,046 kilometers of waterways.

The increase in recreational water use necessitates new facilities, extra space and better accessibility through the digitization of the waterways.

Digital Vignette is an obligation in many municipalities and provinces and will quickly become the standard in the Netherlands.

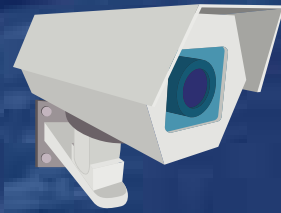
Some advantages:

- Payments (locks, bridges & moorings)
- Registration and notification of theft
- Safety and law enforcement

EFFECTIVELY MANAGE MARITIME INFRASTRUCTURE



RIVER TRANSIT CORRIDORS



INTEGRATED CAMERA
Visually records non-compliant vessels



BOAT SCANNER
Built to minimize the risk of theft and vandalism



Non-compliant vessels are registered and photographed

Fully scalable: this system works with relay sensors to cover large areas.

Smart buoy

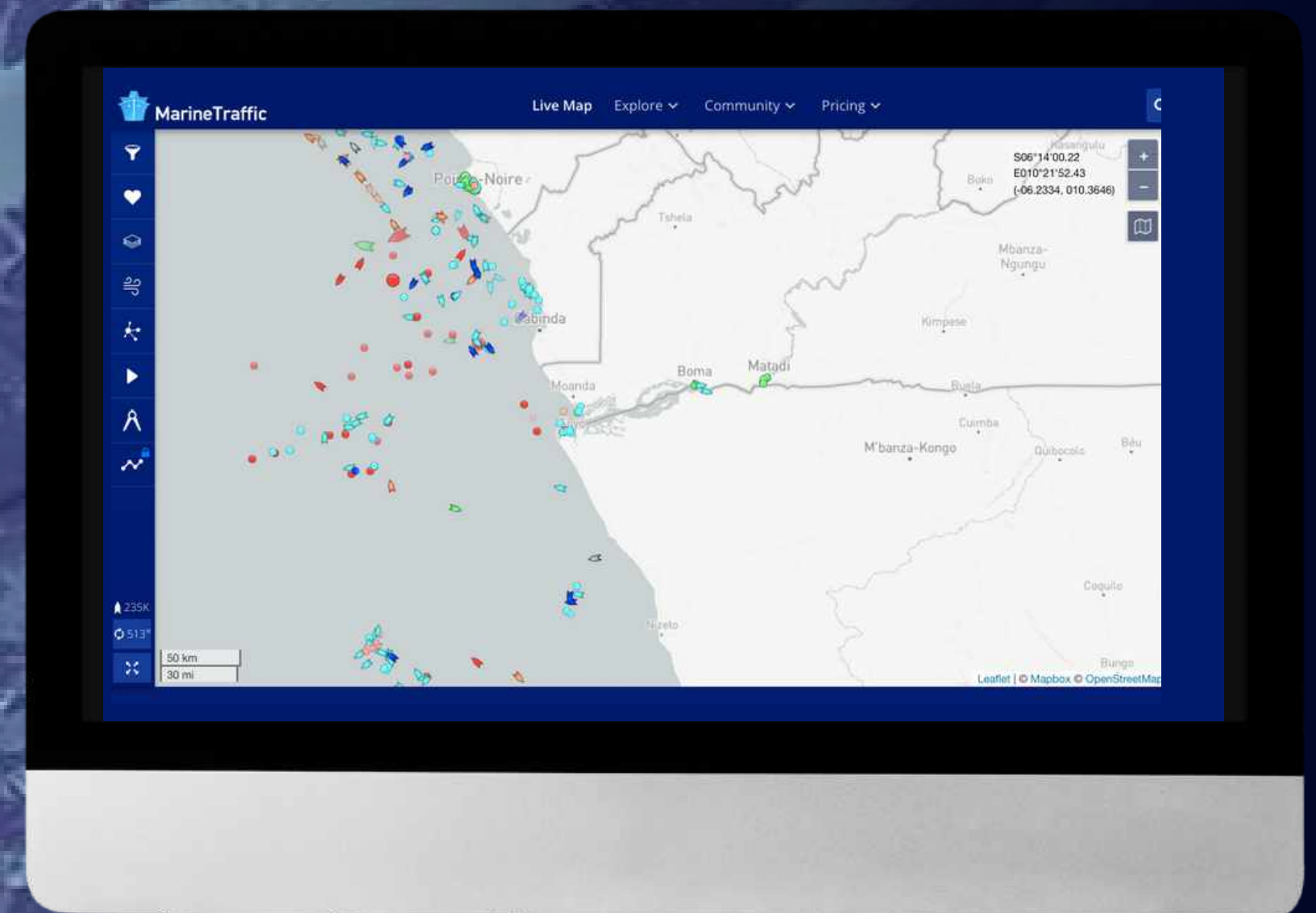
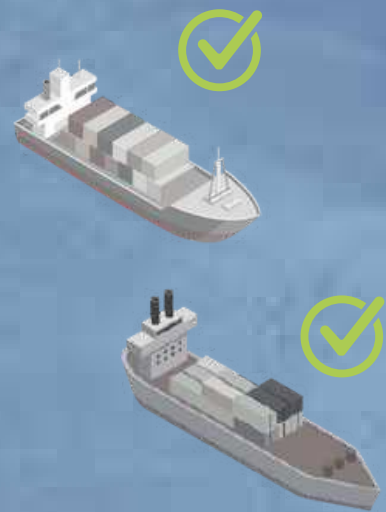


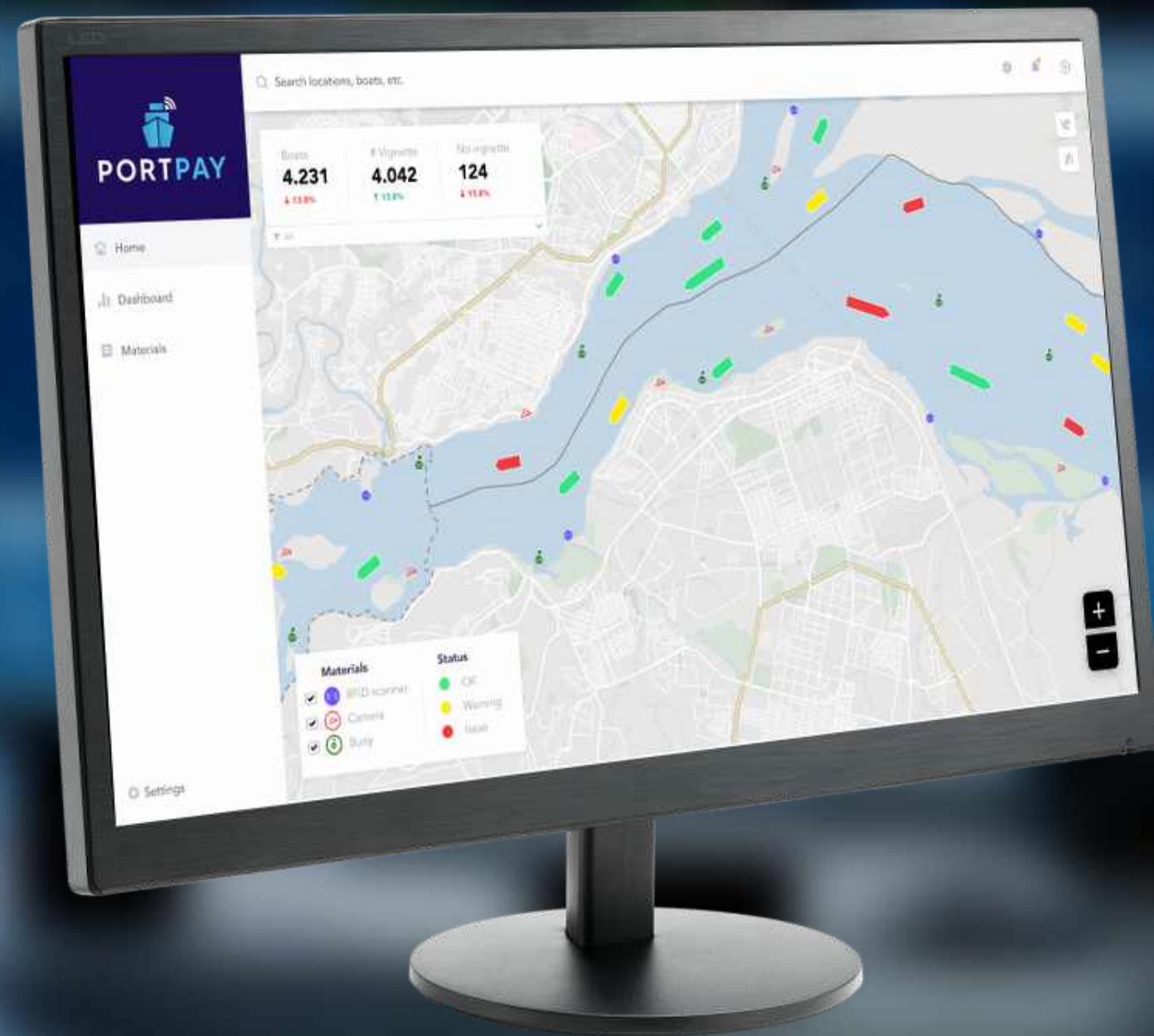
Vessel compliant

Each ship carries a registered digital vignette



IN- AND OUTBOUND MARITIME TRAFFIC Fully integrated with AIS



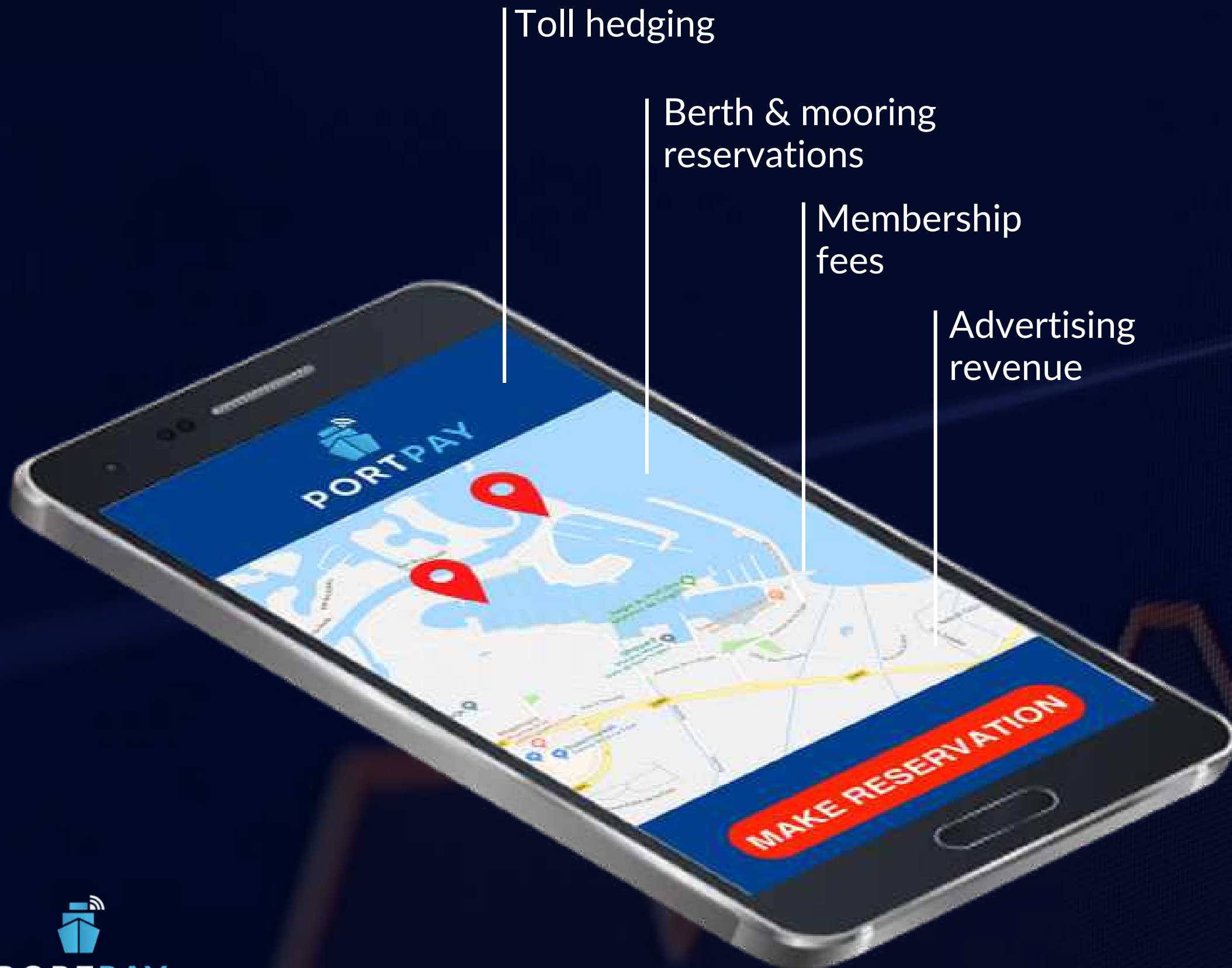


- Total oversight
- Centrally monitored
- Toll hedging
- Targeted intervention and maintenance
- Data & intelligence
- Law enforcement
- Increased security

MAKE WATERWAYS FINANCIALLY SUSTAINABLE

BUSINESS MODEL

PortPay applies a Private Public Partnership (PPP) model in which it shares revenues in exchange for an exclusive long-term concession.



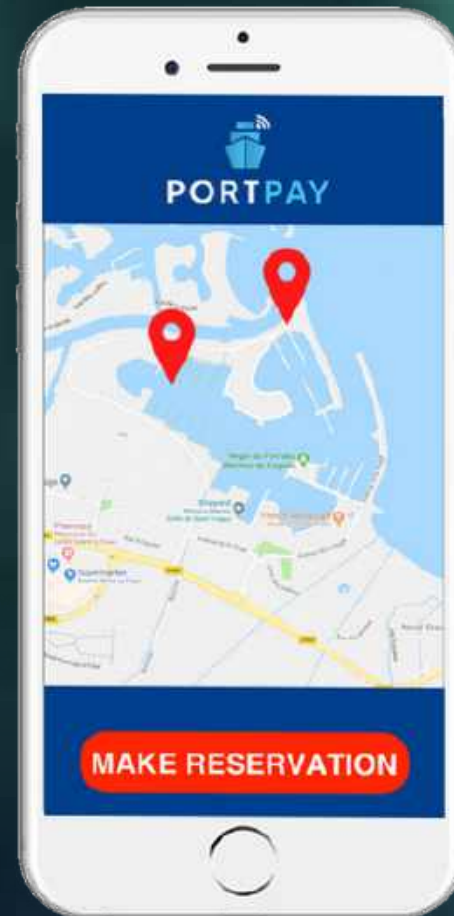
FINANCIALLY SUSTAINABLE

Not a cost but a financially sustainable investment thanks to earnings model



\$

REGISTRATION
FEES



\$

ONGOING REVENUE
STREAMS PAY FOR
INFRASTRUCTURE



SAFETY & SECURITY

SAFETY & SECURITY

- Modern and efficient infrastructure enabling safe navigation
- Smart waterways with scanning capabilities to enforce safety regulations

PROTECTING AND RESTORING THE MARINE ENVIRONMENT



PROTECTING AND RESTORING THE MARINE ENVIRONMENT

SMART MOORING BUOYS



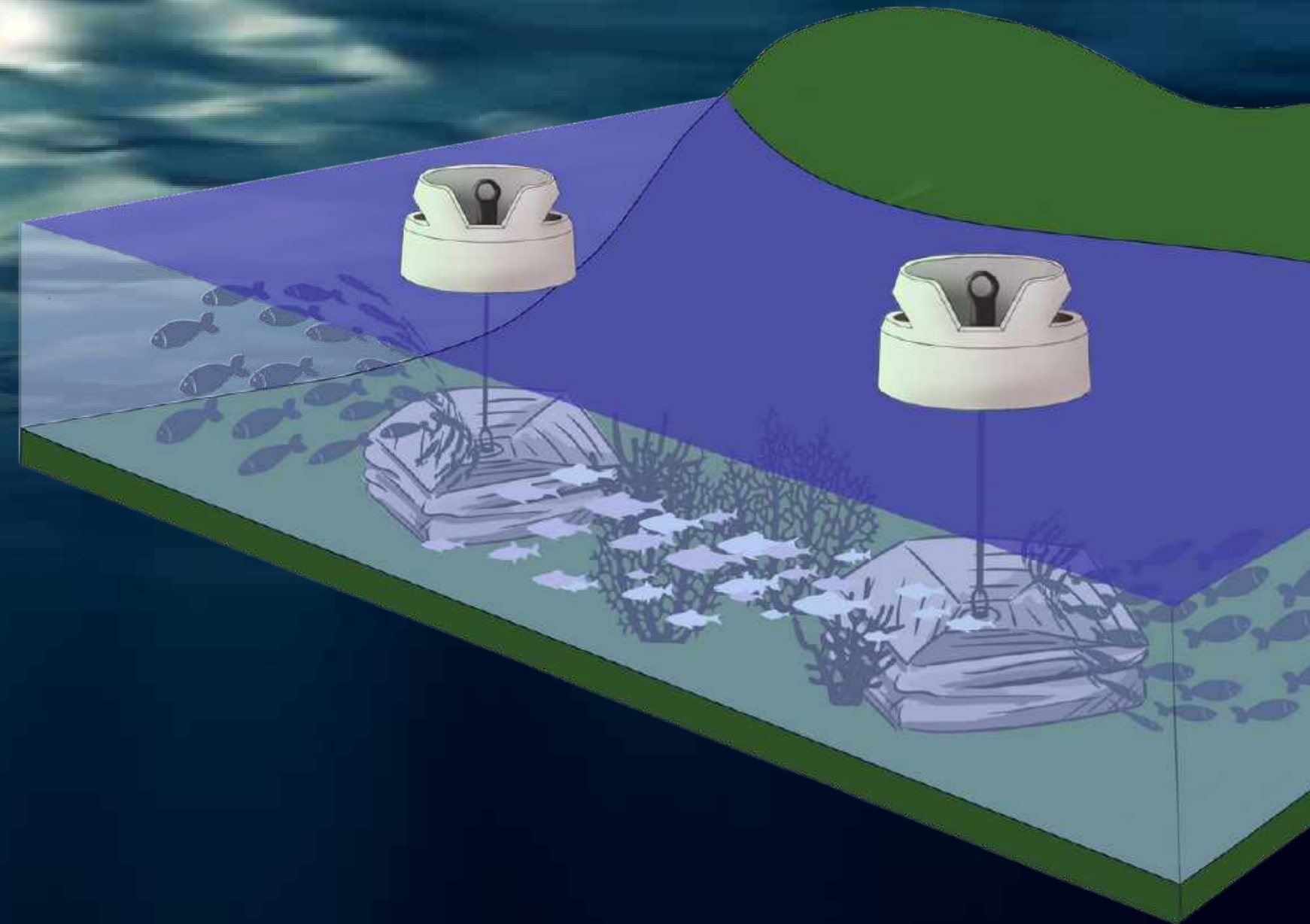
Replaces traditional anchors to preserve the environment.

Zero-drag mooring lines to protect and preserve the marine environment.

Each mooring area has a designated marine life restoration and regeneration program.

Financially sustainable: funded with mooring fees and patronage contributions.

Provides real-time information on the status of the environment.



KEY UN SUSTAINABLE DEVELOPMENT GOALS

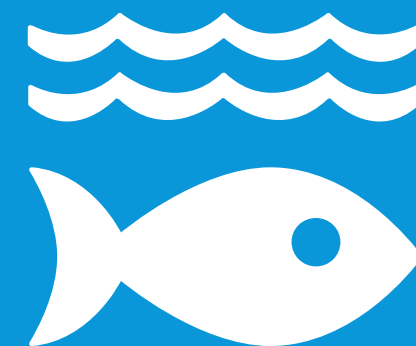
8 DECENT WORK AND
ECONOMIC GROWTH



11 SUSTAINABLE CITIES
AND COMMUNITIES



14 LIFE BELOW
WATER



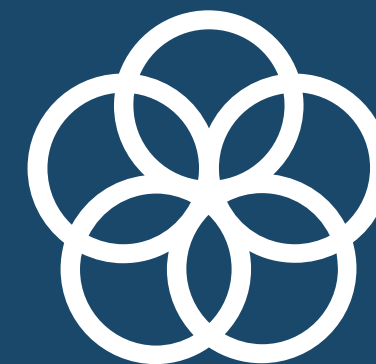
9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



13 CLIMATE
ACTION



17 PARTNERSHIPS
FOR THE GOALS



FINANCIALLY SUSTAINABLE

BLUE
CARBON
CREDIT
BUYERS



Carbon
Credits

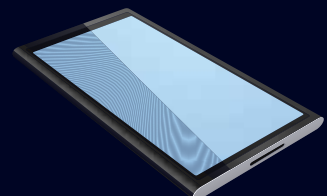
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INFRASTRUCTURE
USERS



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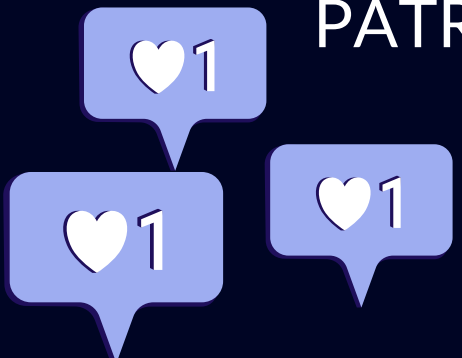
App-based real
time impact stats



Exposure

\$

SPONSORS &
PATRONS

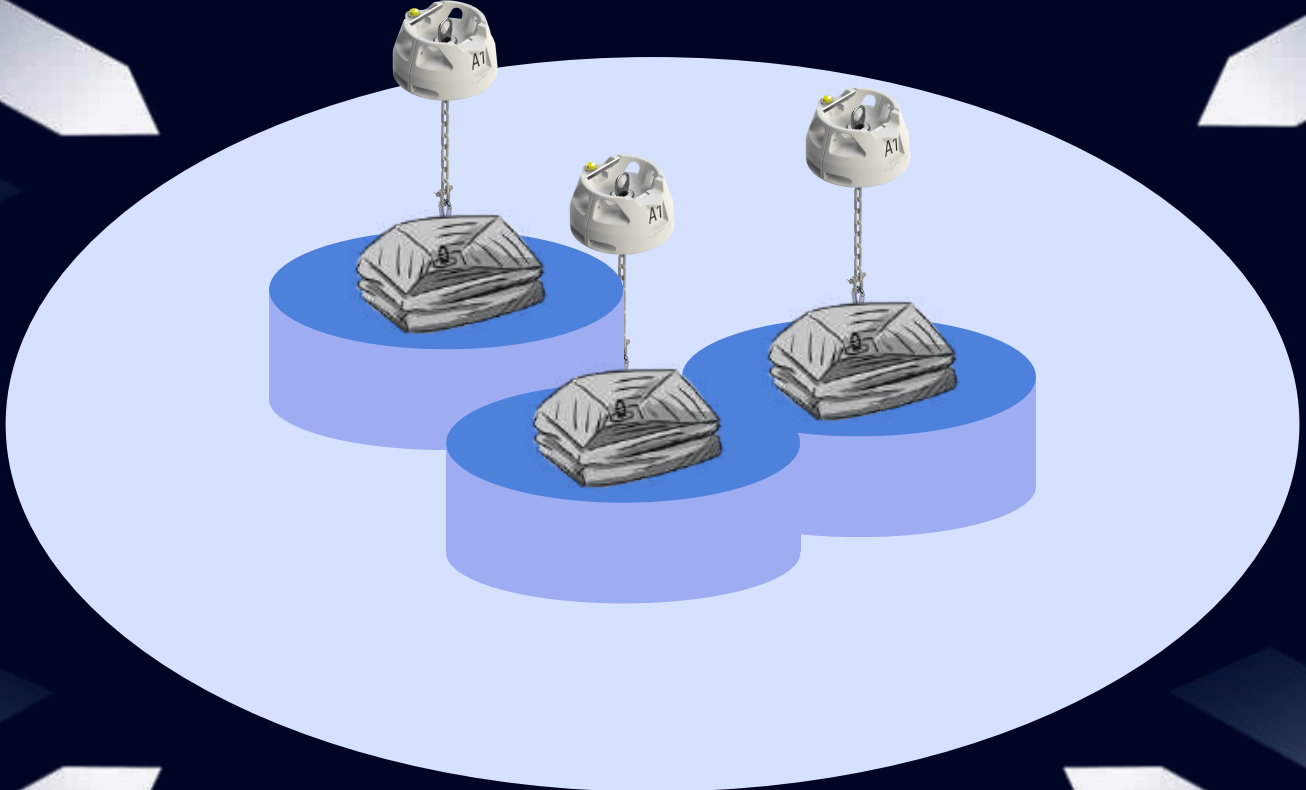


IMPACT
INVESTORS



%

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PROSS

SUMMARY

- **Revenue source** from mooring fees and toll hedging
- **Self-funding concept:** An IoT infrastructure to charge mooring, berthing fees and penalties for trespassing.
- **Fair and efficient management of mooring capacity.** More equitable distribution of mooring and berthing infrastructure.
- **Environmental protection:** an innovative way to protect and preserve the marine environment
- **Security:** Increases the coastal maritime security thanks to advanced monitoring.
- **Proven concept:** fully functional at scale in the Netherlands



CẢM ƠN
THANK YOU

