

From safety by experience to safety by design

DAMEN

A race to weight reduction, this year again in Goteborg

Summary



With global involvement

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In a safe way



Every incident results in report, with guidelines to avoid repetition

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Same quest on a larger scale

Scope of presentation:

from
to
by

Safety by Experience
Safety by Design
Risk Based Design



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Regulations by experience from multiple incidents, countries, organizations



**Stiffens vs
Strength**



Stability



**Human
Factor**



Fire safety



LIFE MATTERS



Move Forward with Confidence

How to introduce new materials in this system?



Dealing with:

Less Experience

Less Stiffness

More Deflection

Less Corrosion

Higher
Combustibility

More or less risk?

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Risk Based Design, in collaboration with Rise and many other E-IASS partners!



Joint European Defence Agency project
CONVINCE



BESST
Breakthrough in European Ship
and Shipbuilding Technologies



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Risk Based Design, even in wartimes scenario's considered safer than aluminum



EUCLID
RTP3.21: Survivability, Durability and Performance of
Naval Composite Structures

Joint European Defence Agency project

CONVINCE



COMPARE

From safety by experience to safety by design



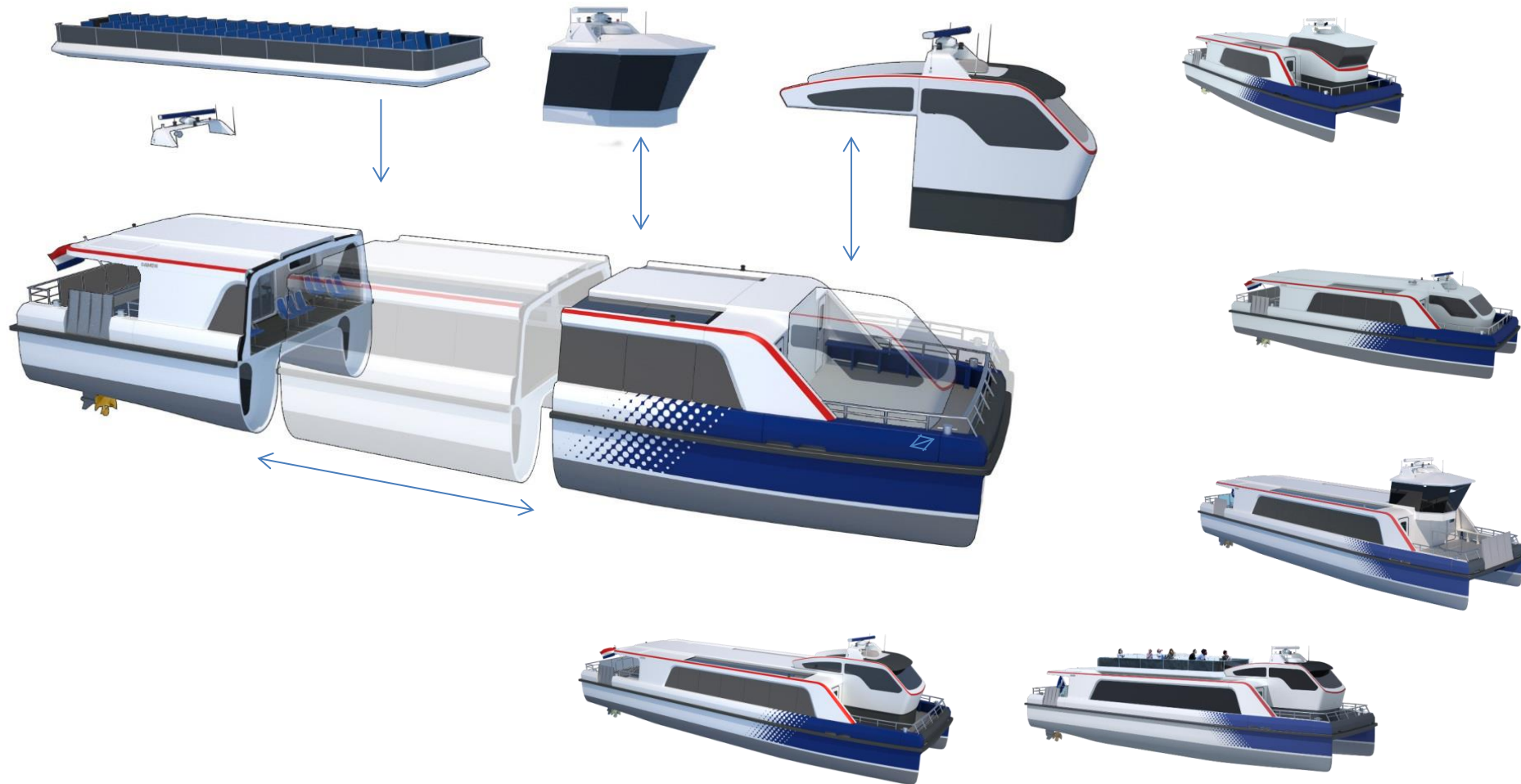
Knowledge on safe design adapted to smaller scale



From safety by experience to safety by design



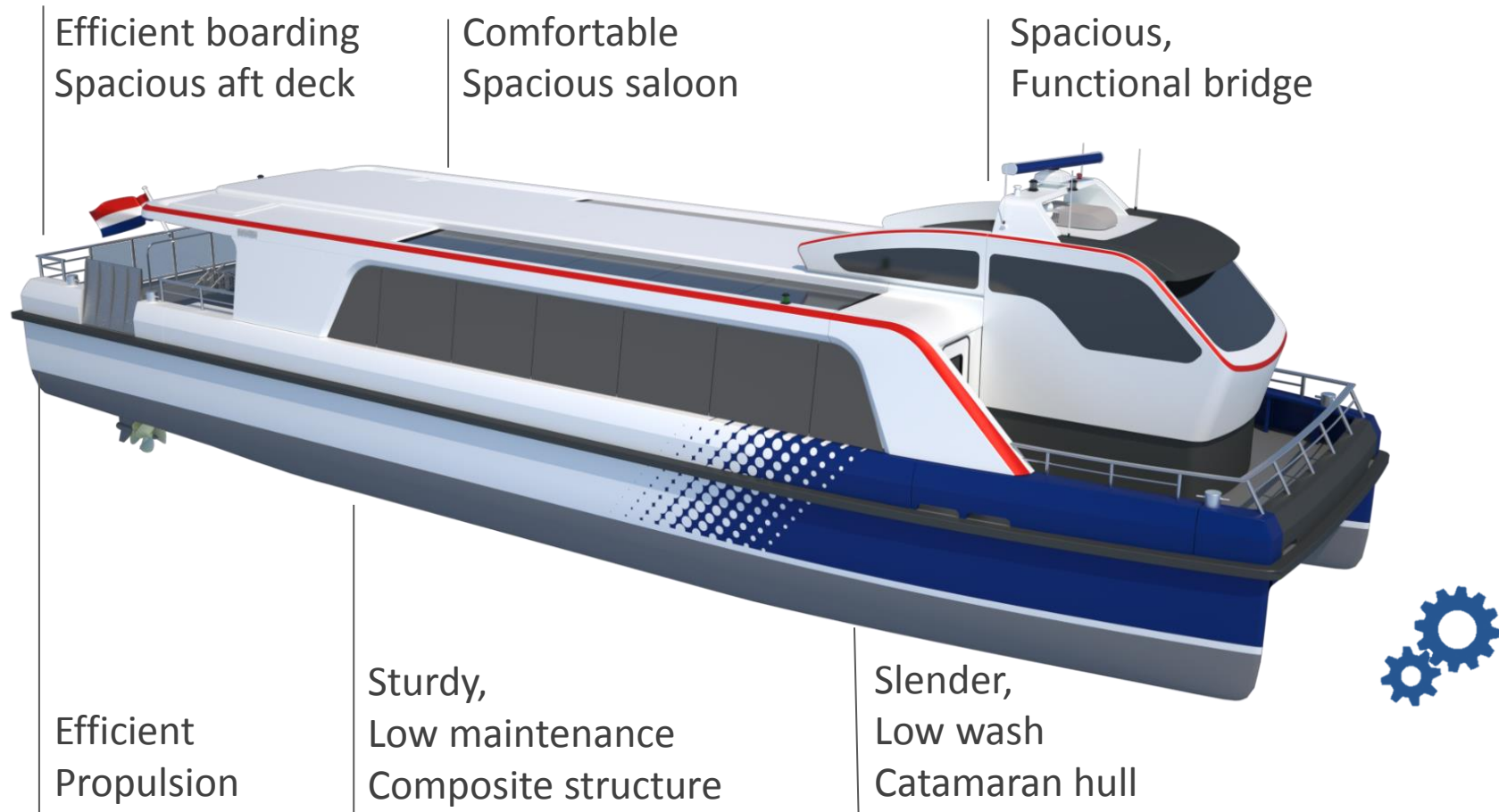
Modularity, extending market potential at low cost and short lead time



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Functional, Efficient, Modern and Comfortable



Same Functions, now from a safety perspective

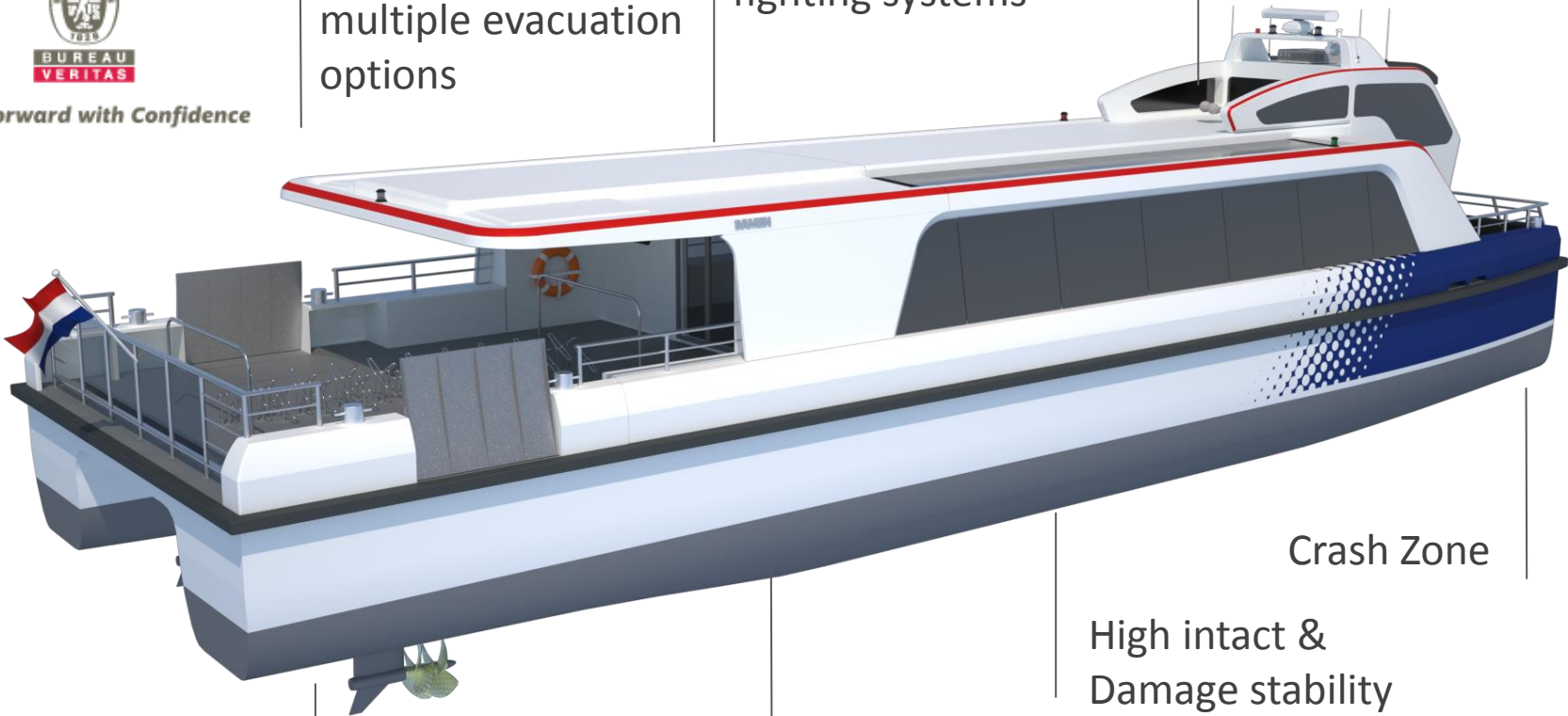


Move Forward with Confidence

Single deck with multiple evacuation options

Passive and active Fire fighting systems

Un-obstructed all round view



Crash Zone

High intact & Damage stability

Redundant Propulsion system

Multiple watertight Void spaces



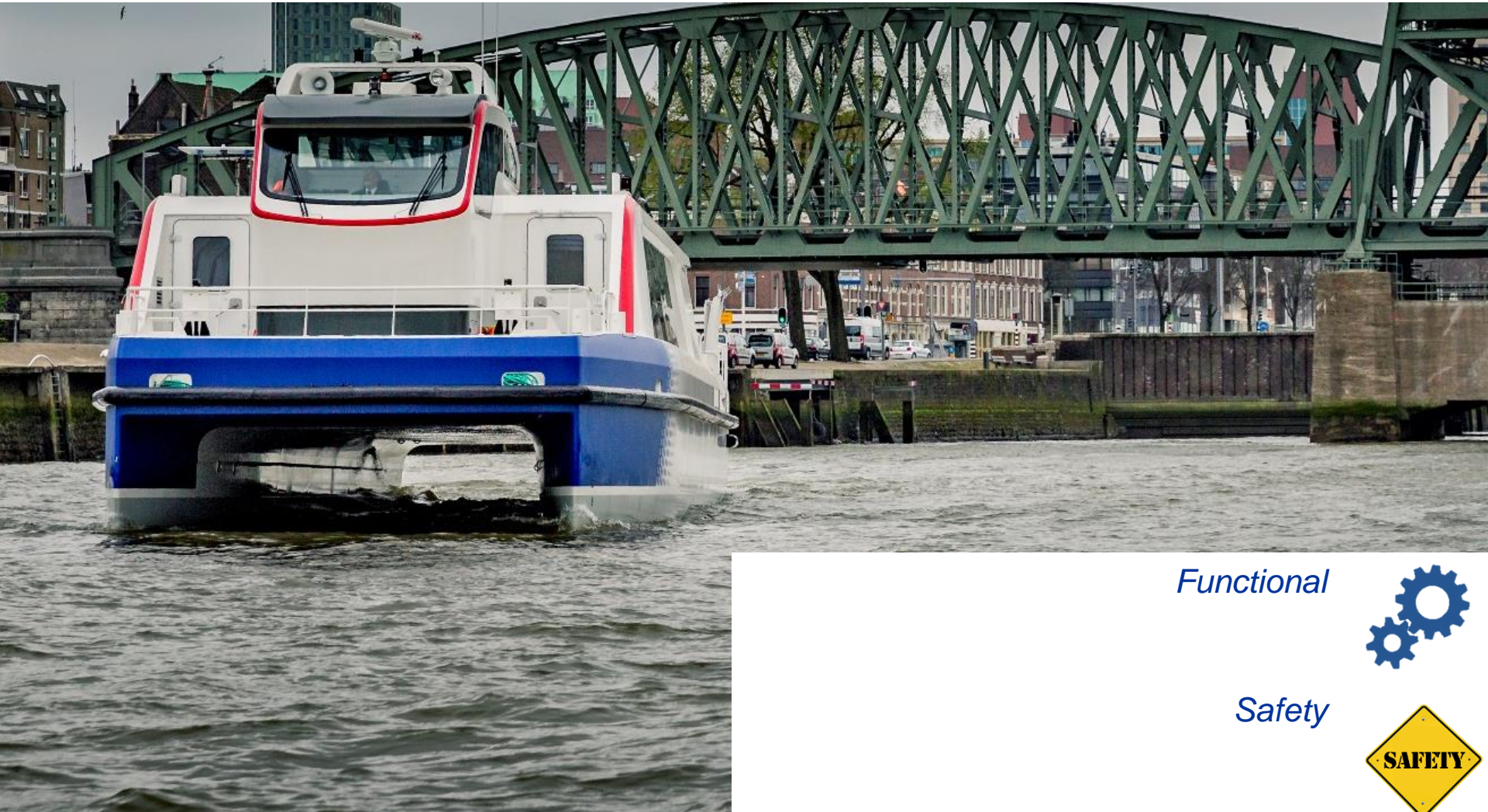
LIFE MATTERS



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Slender catamaran hull shape



Functional



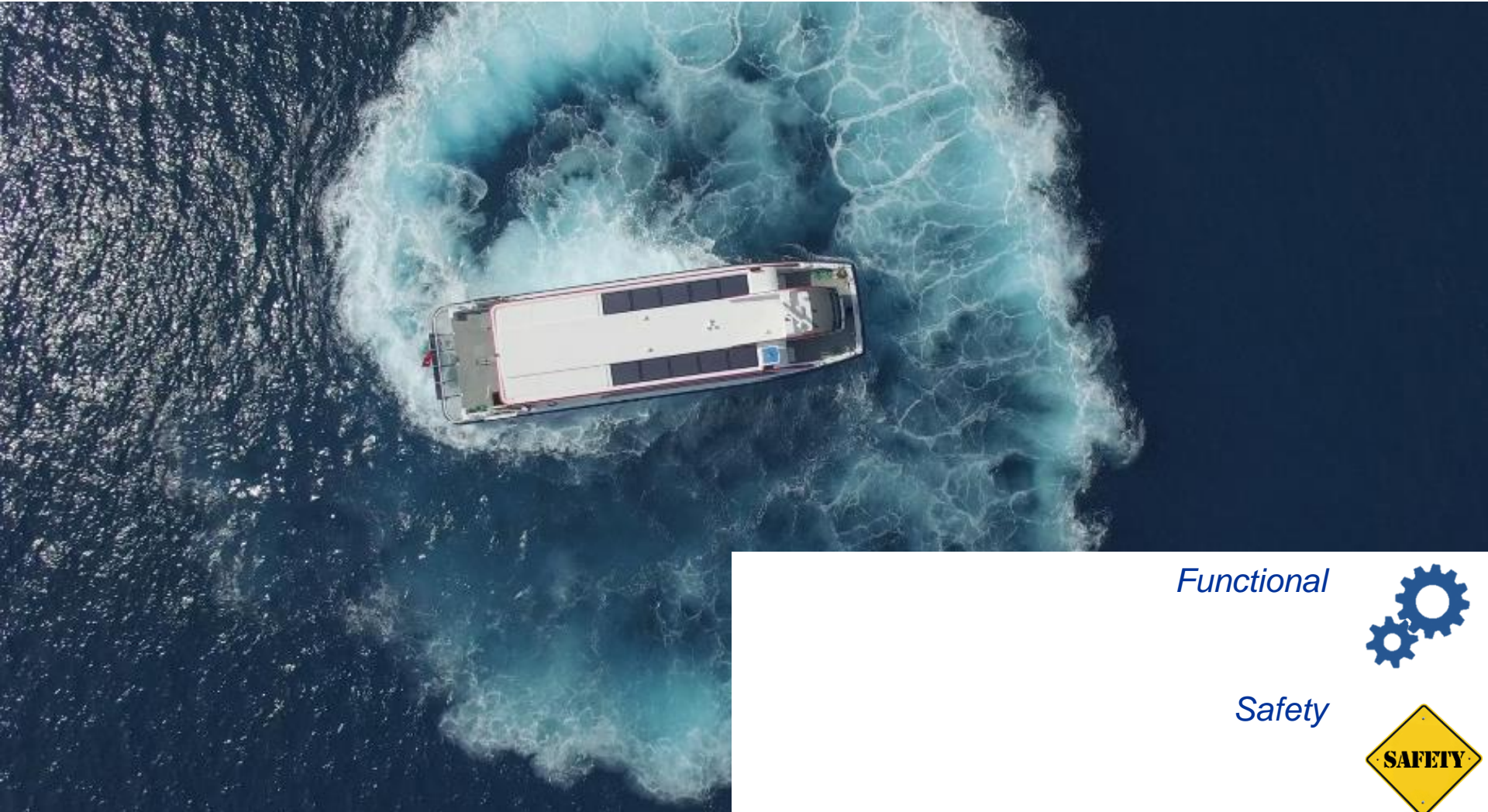
Safety



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High Maneuverability



Functional



Safety



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Open passenger area



Functional



Safety



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Next Steps, welcome on board!



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Next Steps: Back to larger scale Horizon 2020 RAMSSES, work package 17



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Next Steps: From 35 tons in 1977 to 13 tons today



E-LASS *Thank you !!!*



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