Greener, safer and smarter logistics - with autonomous shipping

Massterly is Kongsberg and Wilhelmsen's joint effort to develop the autonomous maritime market
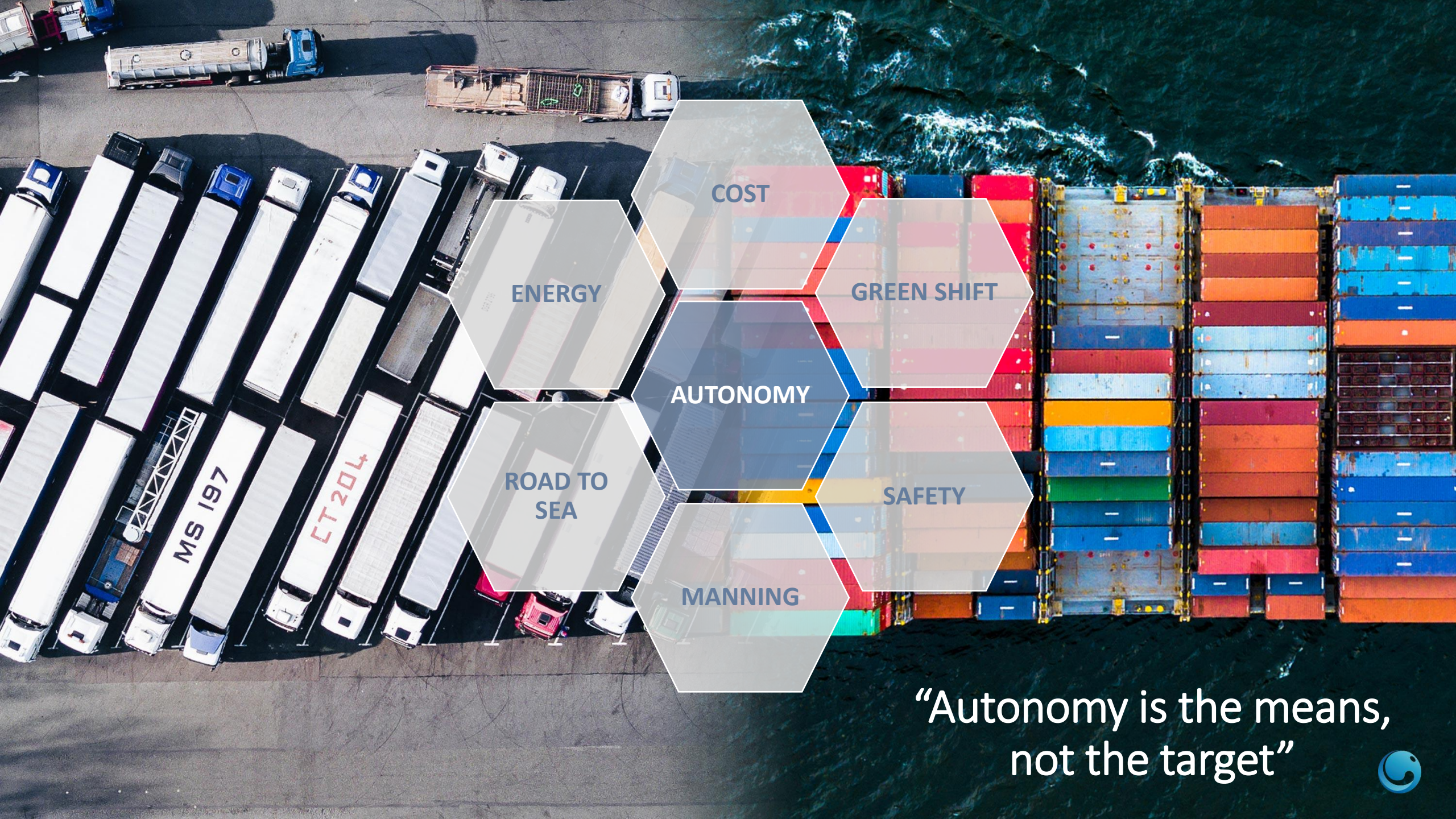
Kongsberg

Massterly

Wilhemsen

TECHNOLOGY

- Leading in development of autonomy

- Frontrunner in digital development

- Trusted on cyber security

OPERATION

- Experienced in vessel operation

- Major logistics operator at sea and on land

- One of the largest maritime network globally

COST

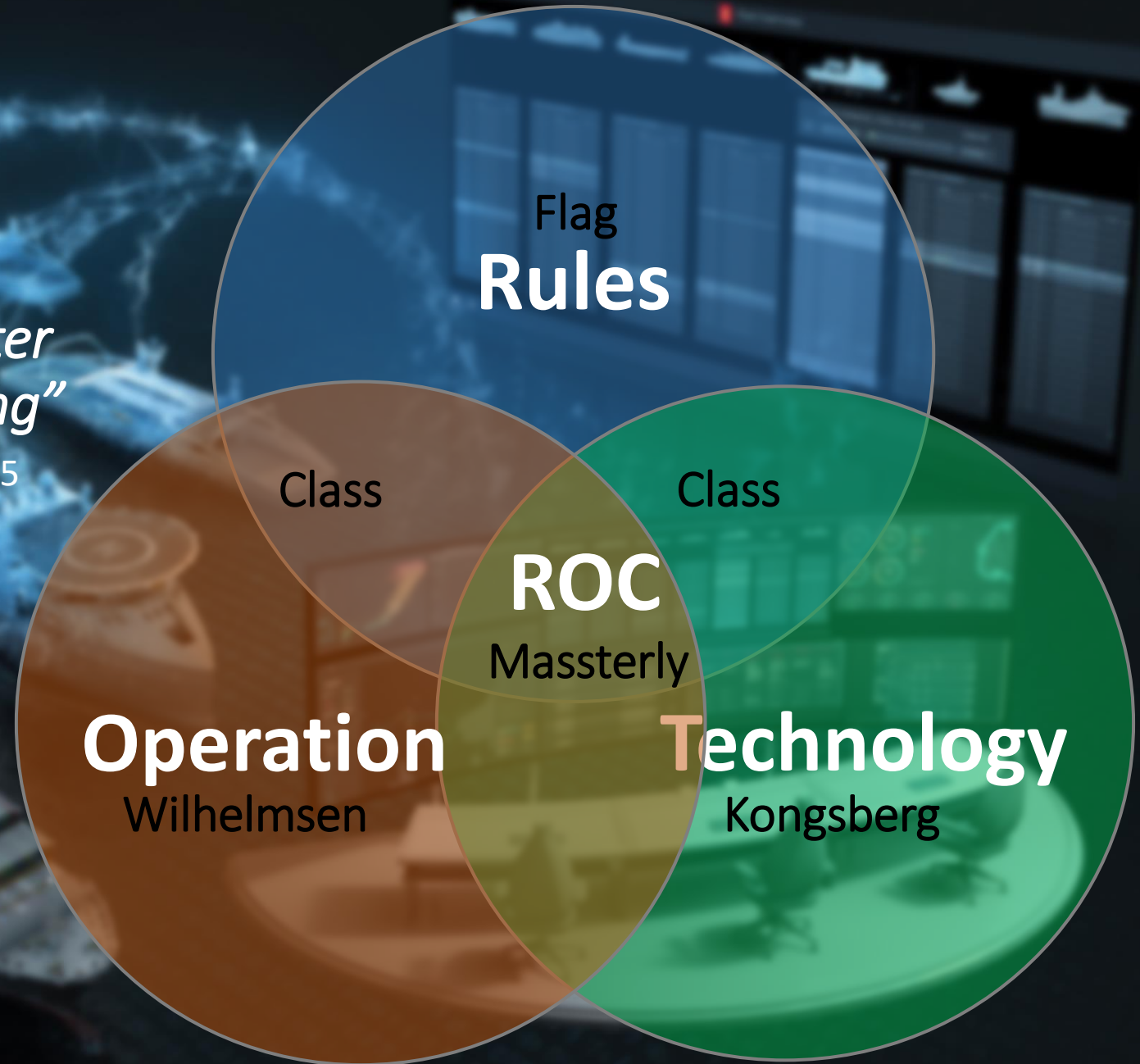ENERGY

GREEN SHIFT

AUTONOMY

ROAD TO SEA

SAFETY

MANNING

"Autonomy is the means, not the target"

"*Level of safety equivalent or better compared to conventional shipping*"

MSC.1/Circular 1455

Flag
Rules

Class

Class

ROC
Massterly

Operation
Wilhelmsen

Technology
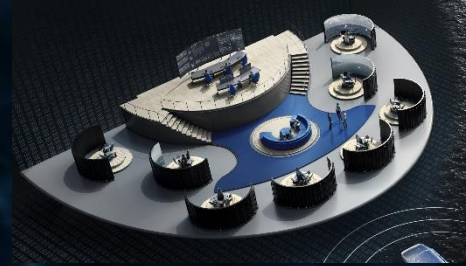Kongsberg

The pillars for autonomous operation

VESSEL SYSTEMS

PORT SYSTEMS

Enabling remote & autonomous operations with key digital orchestrators and existing products.

CONNECTIVITY SYSTEM

Enabling secure and safe connection between the ROC and fleet of vessels.

REMOTE OPERATIONS CENTRE

Enabling remote operations of vessels and other floating assets in a safe, efficient and secure manner.

ROC OPERATOR

Vessel operator providing required infrastructure and procedures for remote and autonomous operations.

Categories of operations

REMOTE SUPPORT

Empowering the onboard crew by **remote monitoring** and **support** in an expert in the loop setting.
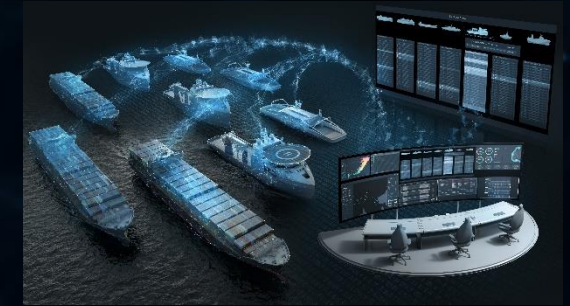
REMOTE CONTROL

Enabling manned/unmanned operations from a remote location with **direct control** capability.

Alleviate the workload of the onboard crew by providing **assisted control** capability.

AUTONOMOUS

Autonomous vessel operations with **monitoring, supervision** and **intervention** capability from a remote location.

FLEET

Large scale fleet operations solution including **mission management, planning, scheduling, resource management** supplementary to other categories of operations.

2020

Bastø Fosen

- Nr of vessels: 6
- Status: Vessels sailing with cargo
- Type of vessel: RoPax ferries
- Propulsion system: Battery and diesel
- Autonomy level: Sailing autonomously and manned since 2020
- Benefits: to save fuel on docking
- Benefits: Reduce contact damages
- Benefits: Reduced risk of collisions in crossings
- Impact: 36 000 crossings per year

2022

ASKO Maritime

- Nr of vessels: 2
- Status: Vessels sailing with cargo
- Type of vessel: RORO
- Propulsion system: Battery electric
- Autonomy level: Fully autonomous and sailing unmanned from 2024
- Capacity: 16 trucks
- Length: 67 m
- Width: 15 m
- Service speed: 8 knots
- Battery capacity: 1.8 MWh
- Impact: Replacing 1 million truck-kms/year

202X

Ekornes/DB Schenker

- Nr of vessels: 1
- Status: Concept development
- Type of vessel: Container feeder
- Capacity: 40 TEU
- Propulsion system: Battery electric
- Autonomy level: Fully autonomous and unmanned from day one
- Length: 67 m
- Width: 15 m
- Service speed: 8 knots
- Battery capacity: 0.9 MWh

2021

Yara Birkeland

- Nr of vessels: 1
- Status: Vessel sailing with cargo
- Type of vessel: Container feeder
- Propulsion system: Battery electric
- Autonomy level: Fully autonomous and sailing unmanned from 2024
- Capacity: 104 TEU
- Length: 80 m
- Width: 15 m
- Service speed: 8 knots
- Battery capacity: 7 MWh
- Impact: Replacing 40 000 truckloads/year

2024

Reach Remote

- Nr of vessels: 2
- Status: Vessels under construction
- Type of vessel: Offshore service to ROV and AUV operations
- Propulsion system: Diesel electric
- Autonomy level: Fully autonomous and unmanned from day one
- Length: 24 m
- Benefits: 40 days of operation before needed to return to port
- Benefits: Saves a vessel crew of 40-50 crew members
- Benefits: Saves 90% fuel due to vessel size reduction

2020

2022

202X

2021

2024