



Choose your Path - Retrofit & Newbuild

CFA Conference 2025

November 4th 2025

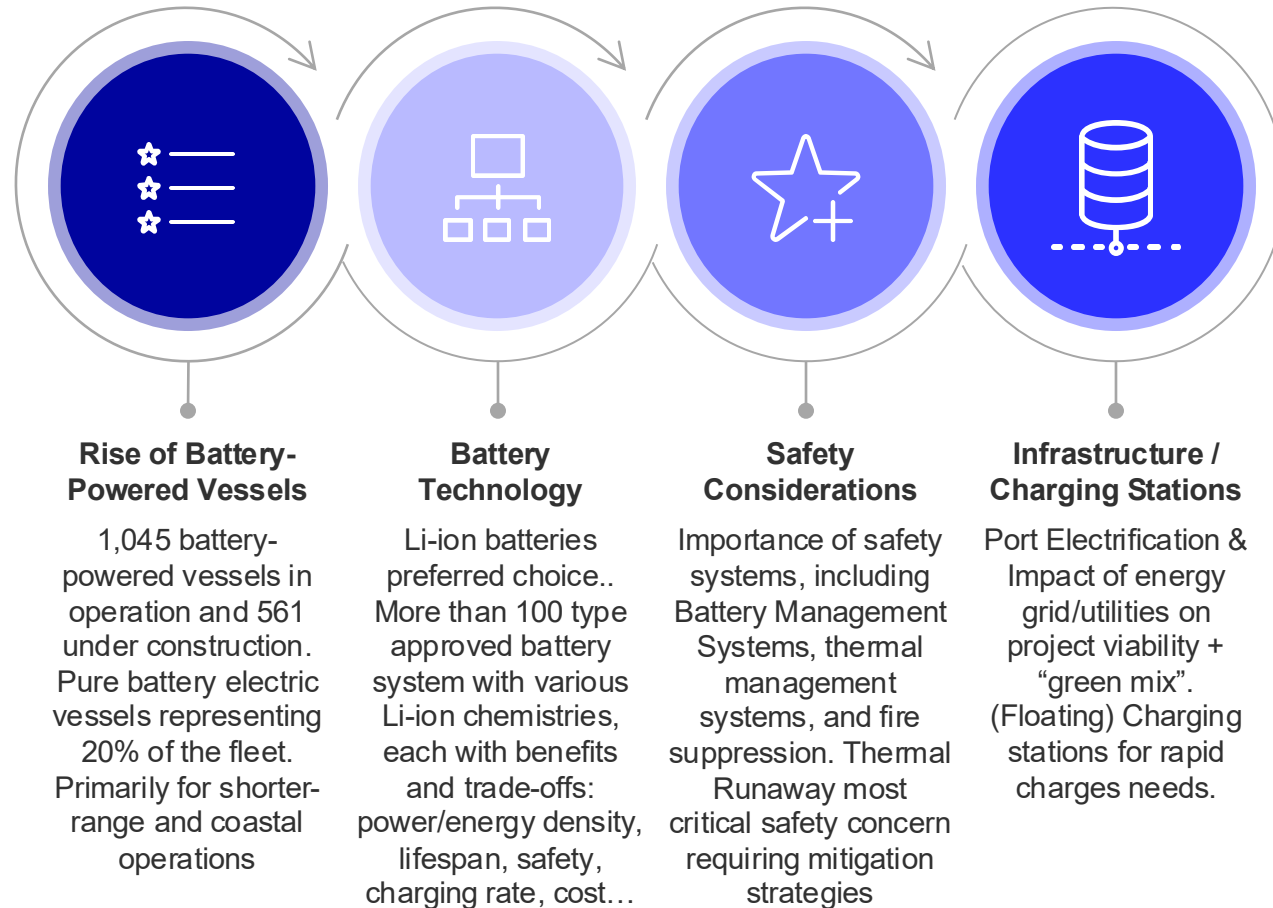
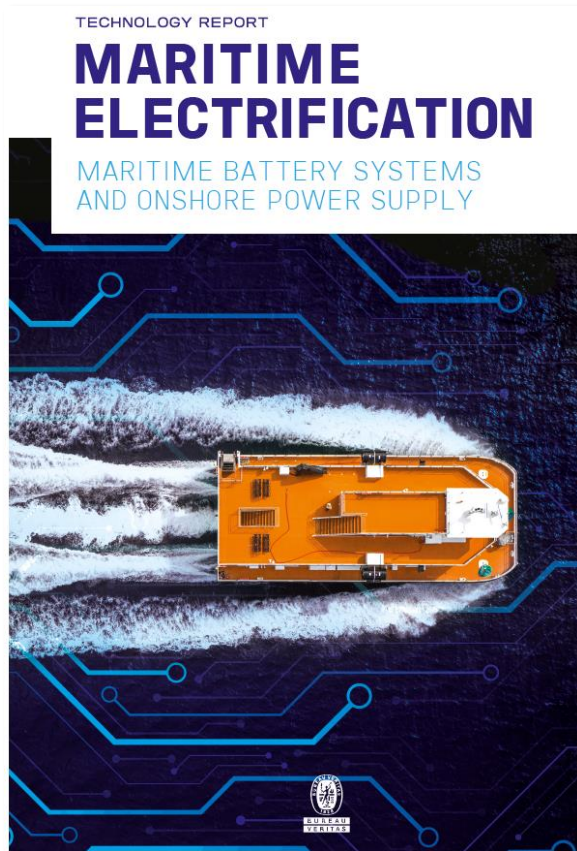


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RETROFIT AND NEWBUILD – GENERAL CONSIDERATIONS



LATEST UPDATE ON PATH OPTIONS – SUSTAINED GROWTH FOR HYBRID&ELECTRIFICATION



LATEST UPDATE ON PATH OPTIONS – ALTERNATIVE FUELS AND ENERGY EFFICIENCY TECHNOLOGIES



ALTERNATIVE FUELS NON-CARBON FREE

- › LNG
- › METHANOL
- › BIOFUELS



ALTERNATIVE FUELS CARBON FREE

- › AMMONIA
- › HYDROGEN
- › NUCLEAR



ENERGY EFFICIENCY TECHNOLOGIES

- › ALS / PTO
- › DIGITALIZATION
- › FUEL CELLS
- › WAPS



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SEECAT

SHIP ENERGY EFFICIENCY CALCULATION
AND ANALYSIS TOOL

SEECAT IS A TOOL TO SIMULATE COMPLEX SHIP ENERGY SYSTEMS

Energy Converters

Main engines,
diesel generators,
oil-fired boilers,
waste heat recovery (WHR)
turbines,
heat exchangers,
pumps,
etc.

Energy Networks

Mechanical,
steam,
cooling water,
fuel oil,
exhaust gases,
etc.

Regulation systems

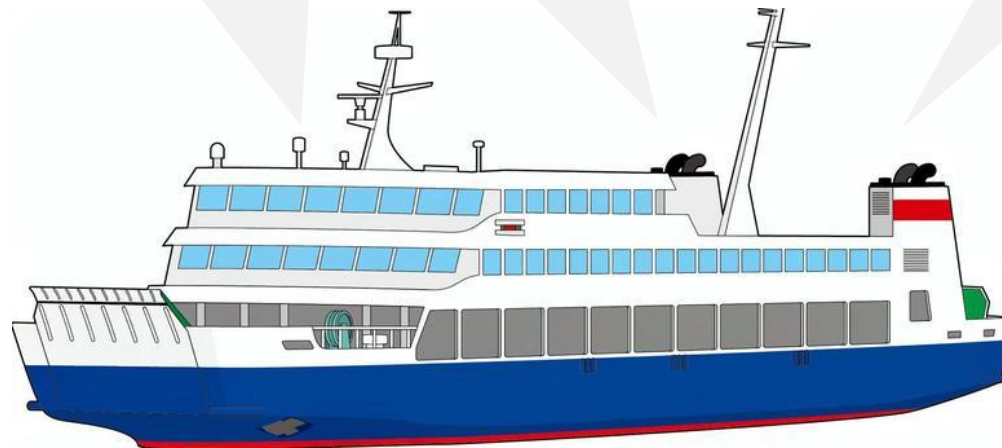
Temperature regulation,
power management
systems,
water levels,
etc.

Operating Conditions

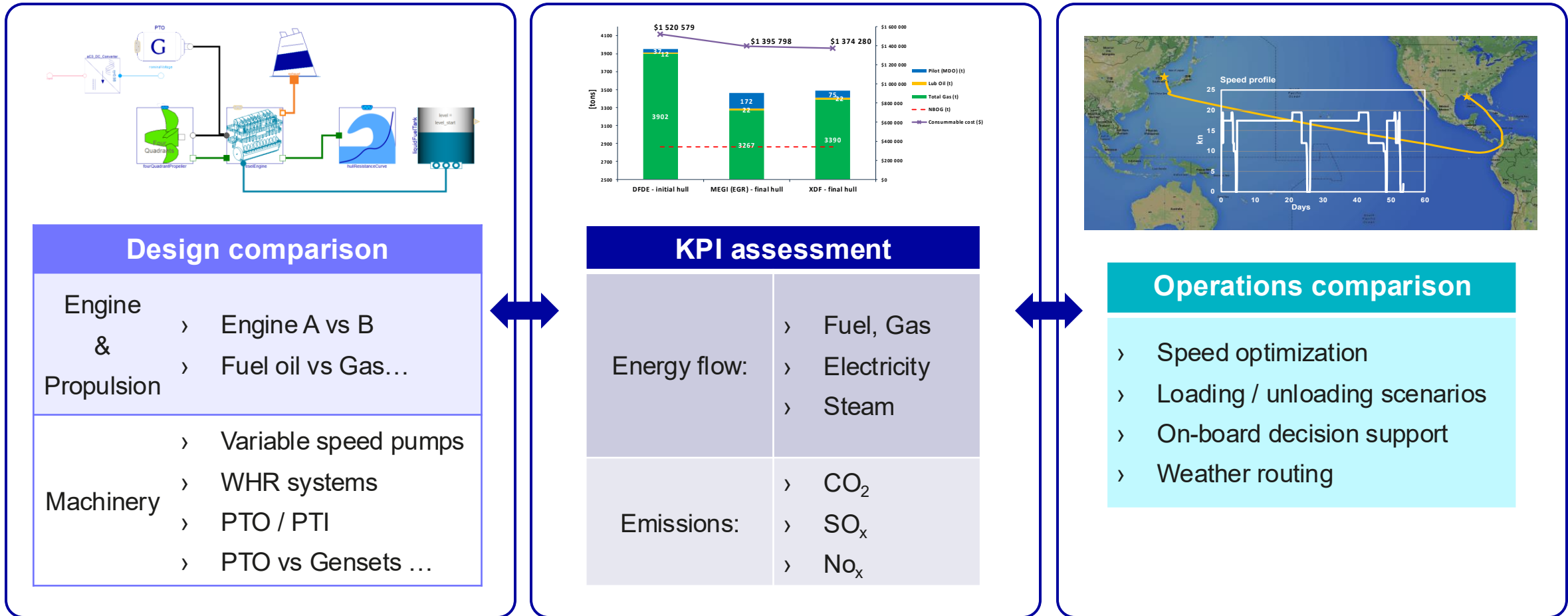
Port, maneuvering,
sailing,
loading/unloading,
specific operations,
etc.

Environmental Conditions

Sea and air temperature,
pressure,
humidity,
wind,
waves,
current,
depth

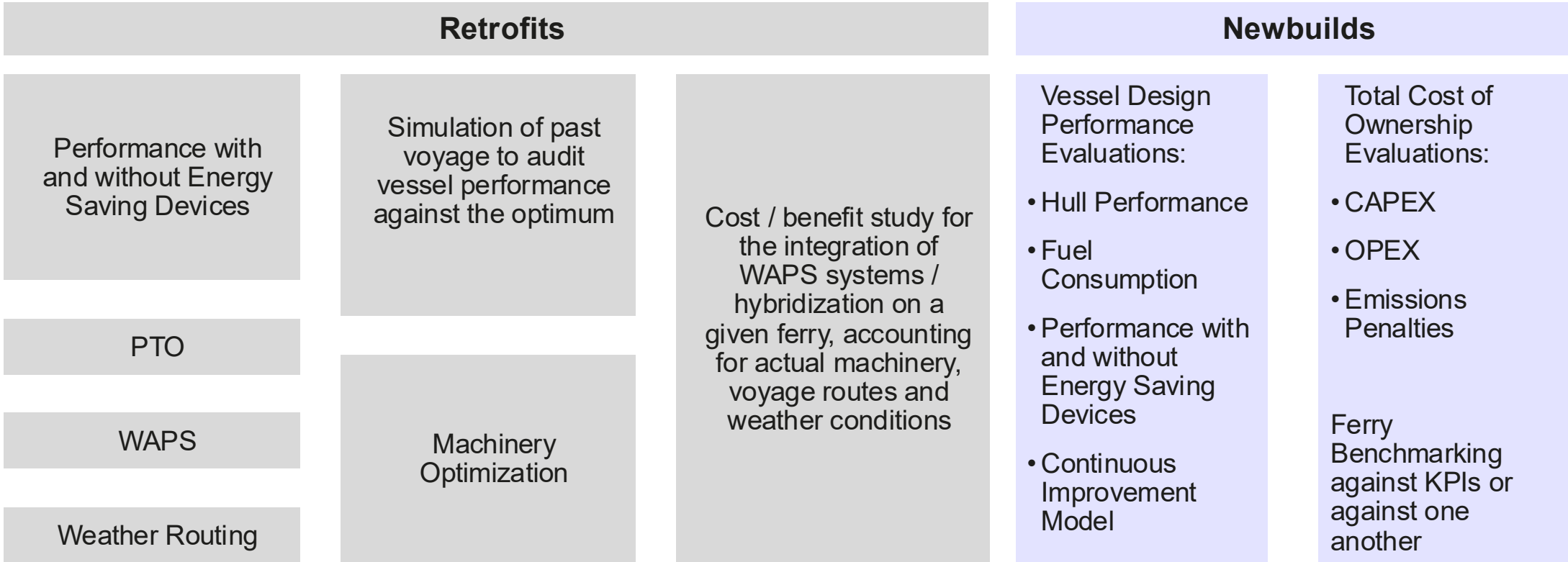


INSTANTANEOUS AND CUMULATIVE KPIS OVER REAL OPERATIONAL PROFILE



SEECAT STUDY TYPICAL OUTPUT

As a Ship Energy Efficiency Calculation and Analysis Tool, SEECAT is the engine behind a variety of assessments for Newbuilds and Retrofits



Systematic and Pragmatic assessments from simple to complex





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OptiCARBON™

FOR FORWARD-THINKING FLEETS.

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FOR FORWARD-THINKING FLEETS.

OptiCARBON™ is an **advanced web-based SaaS** that cuts through complexity by focusing on what matters most: **energy consumption** and **regulatory cost exposure**

Designed to turn complexity into **actionable insight**.

Helps **reduce compliance costs** while building a path toward **more sustainable operations**.

OptiCARBON™

FOR FORWARD-THINKING FLEETS

WHO IS IT FOR?

- **Pax, RoPax & cruise vessels**
- **Profile:** Fleet managers, decarbonization departments, technical departments (R&D), HSE departments, executive management, financial controllers
- **Companies of all sizes:** small/medium (2–15 vessels) to large fleets

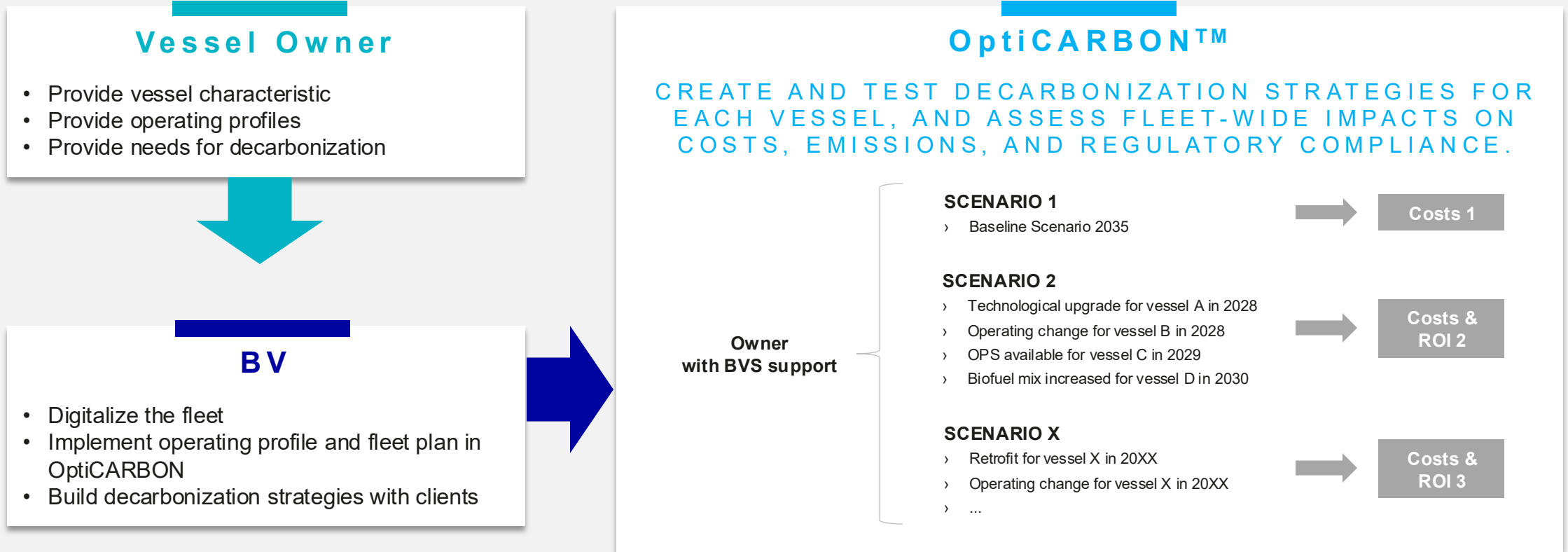
MARKET NEEDS

- **Develop** effective long-term decarbonization strategies
- **Ensure** compliance with evolving emissions regulations
- **Gain** comprehensive visibility and control over fleet performance
- **Replace** unreliable spreadsheets
- **Collaborate** across teams on multiple decarbonization scenarios in real-time
- **Predict and optimize** taxes and costs

KEY FUNCTIONALITIES

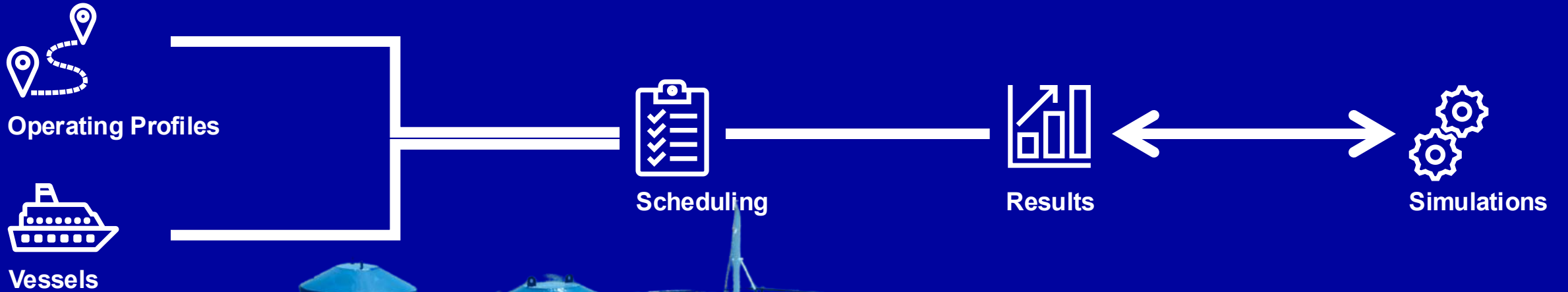
- **Energy consumption simulation** (incl. OPS)
- **Predictive** fuel & emissions modeling (>95% accuracy)
- **Multi-scenario planning & cost simulations** (biofuels, OPS, upgrades)
- **Granular analytics** down to vessel-level consumption
- **Custom dashboards** for strategic decisions
- **Integration-ready** and modular by design

OPTICARBON TOOL SIMPLIFIES THE DEVELOPMENT OF THE GHG STRATEGY FOR A VESSEL FLEET



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