LOREKA360° OptiHull

10 %	2 5 24	2 /31	-7 %
Hull Resistance	Vessel count overconsumption (CP)		Overconsumption (CP)

OptiHull

Voyage planning · Vessel optimization · Expert consultants

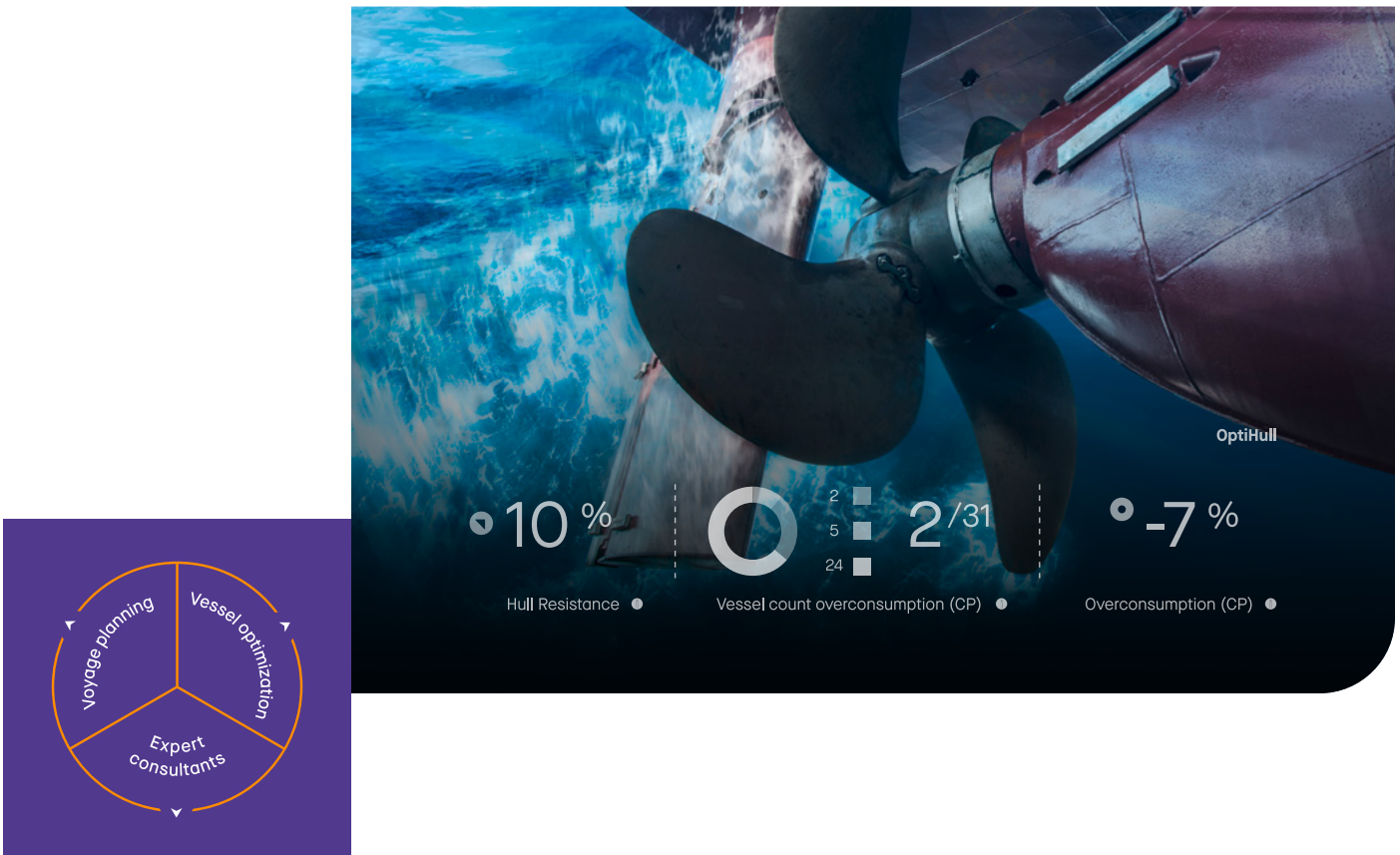## Hull Efficiency. Data driven. Expert led.

Service summary

LOREKA360° OptiHull provides per-voyage vessel hull performance assessments, isolating efficiency losses due to fouling and ageing. By integrating operational, environmental, and propulsion data, it delivers actionable recommendations to improve fuel efficiency, reduce emissions, and guide maintenance schedules.

Data inputs

- Fuel oil consumption (FOC) – daily and voyage totals
- Speed-through-water
- AIS positional and voyage data
- Meteorological and oceanographic data: wind, wave, currents
- Vessel particulars: dimensions, displacement, engine data

Methodology

- Correction for draft, displacement, sea currents, and weather
- Filtering out operational noise (drifting, maneuvering, speed variation)
- Benchmarking against technical fuel consumption tables and Charter Party performance clauses
- Trend analysis of hydrodynamic resistance over multiple voyages

Core outputs

- Hull condition performance curves (resistance vs. time)
- Speed vs. consumption plots (actual vs. reference)
- Operational heatmaps showing performance-impacting events
- Cleaning schedule recommendations with ROI projections.
- All data and recommendations are checked and commented by our team of marine experts

Operational impact

- Up to 3% fuel savings
- Direct proportional CO_2 reduction (~3.15 t CO_2 saved per ton fuel)
- Reduced performance disputes with verifiable data

Deliverables per reporting cycle

- Executive summary with environmental impact review
- Updated fuel consumption tables
- Resistance and speed-consumption charts
- Vessel benchmarking tables
- Expert-reviewed recommendations

Integration & access

- Input sources: onboard sensors, AIS feeds, 3rd-party weather/current datasets
- Outputs: PDF reports and recommendations
- Compatible with existing fleet performance management systems

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