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Interreg South Baltic

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Future-Proofing South Baltic Marinas

A Strategic Benchmark of Challenges, Operational Realities, and Solutions for Marina Managers.

Interreg South Baltic Program 2021-2027

Based on the D.2.1 Benchmarking Report.

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The Strategic Context: Operating in a Fragile Ecosystem

The Baltic Reality: The Baltic Sea is semi-enclosed with incredibly slow water exchange. Pollutants do not flush away; they linger and accumulate.
Currently, **97%** of the sea is affected by eutrophication.
The Marina's Role: Marinas are the critical interface between land and sea. They are essential for the economy but act as potential hotspots for nutrient loading, chemical contamination, and invasive species.

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Six Pressures Facing Modern Marinas

Wastewater

Blackwater and greywater introduce nitrogen and phosphorus, creating localized 'dead zones'.

Eutrophication

Nutrient overload accelerating algal blooms and oxygen depletion in the basin.

Plastic Pollution

Marinas act as accumulation zones. Sediments contain up to 295 microplastic particles/kg.

Hazardous Waste

Bilge water, oils, antifouling residues, and cleaning agents accumulating in the water column.

Invasive Species

Recreational hulls acting as primary vectors for Non-Indigenous Species (NIS).

Climate Change

Rising temps extend algal bloom seasons; storm surges overwhelm runoff systems.

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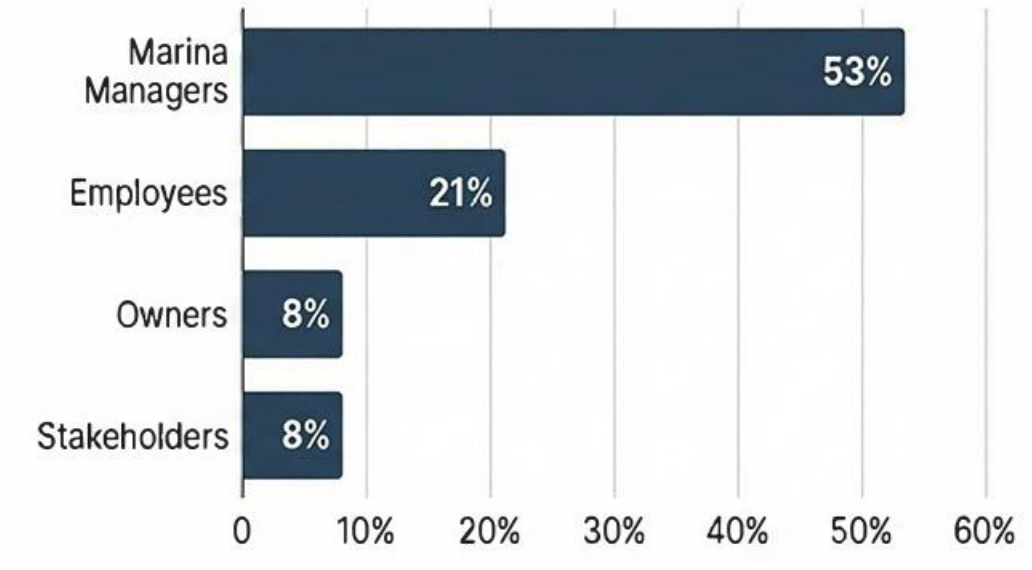
The Industry Benchmark: Who We Surveyed

Insights based on 62 Stakeholders across Poland, Germany, Sweden, and Lithuania.

Respondent Roles



Sustainability Interest Score (1-5)

Insight: *Operational managers are ready for change, but often lack owner buy-in.*

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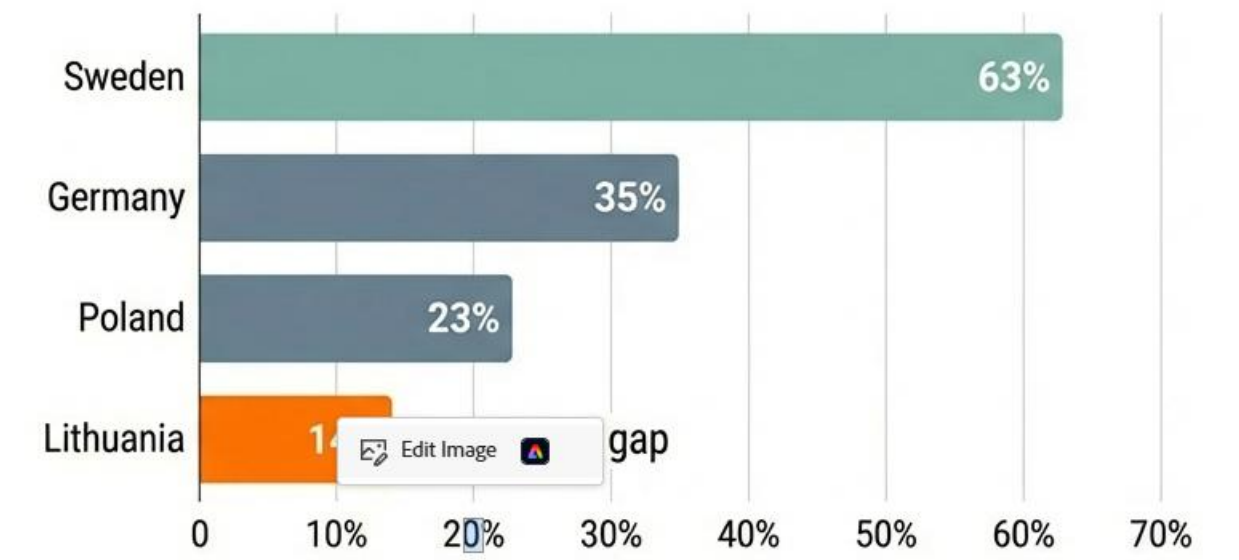
The "Blackwater" Reality: *Infrastructure vs. Usage*

Only 53% of surveyed marinas manage wastewater via pump-out stations.

Pump-Out Station Usage by Country



The Accessibility Gap

Even where systems exist, 15% rated accessibility as 'Low' or 'None'. Visitors are reluctant to use systems if docking is difficult.

Lithuanian Context:
43% of respondents rely on onsite treatment rather than pump-outs.

Insight: *Operational managers are ready for change, but often lack owner buy-in.*

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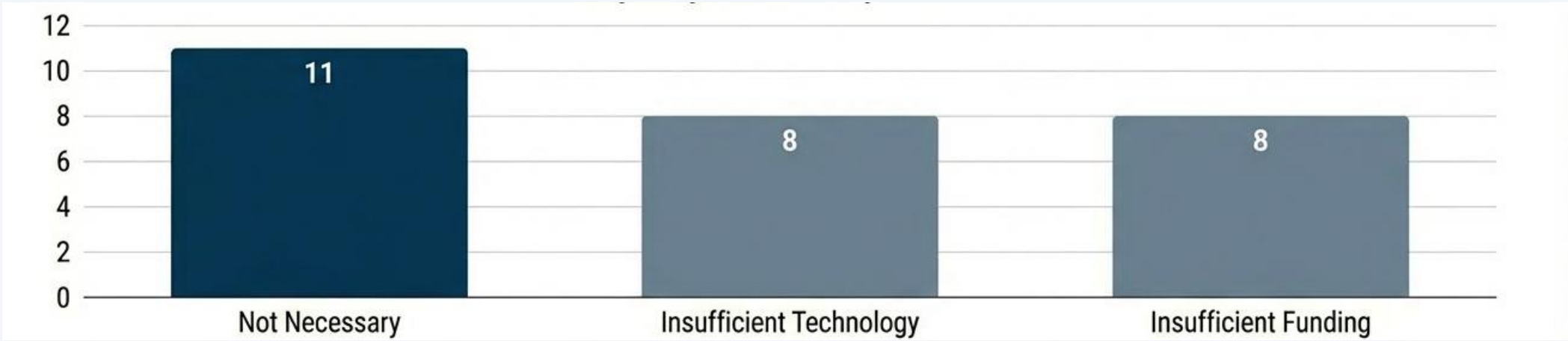
Hazardous Liquids: The 'Not Necessary' Mindset of marinas: 56% Have NO systems to prevent hazardous liquid spills (oils, fuel, grease).

Why do you lack a system?



Current Protocols often rely on calling the fire department (Germany) or reporting to authorities (Poland/Lithuania) rather than onsite containment.

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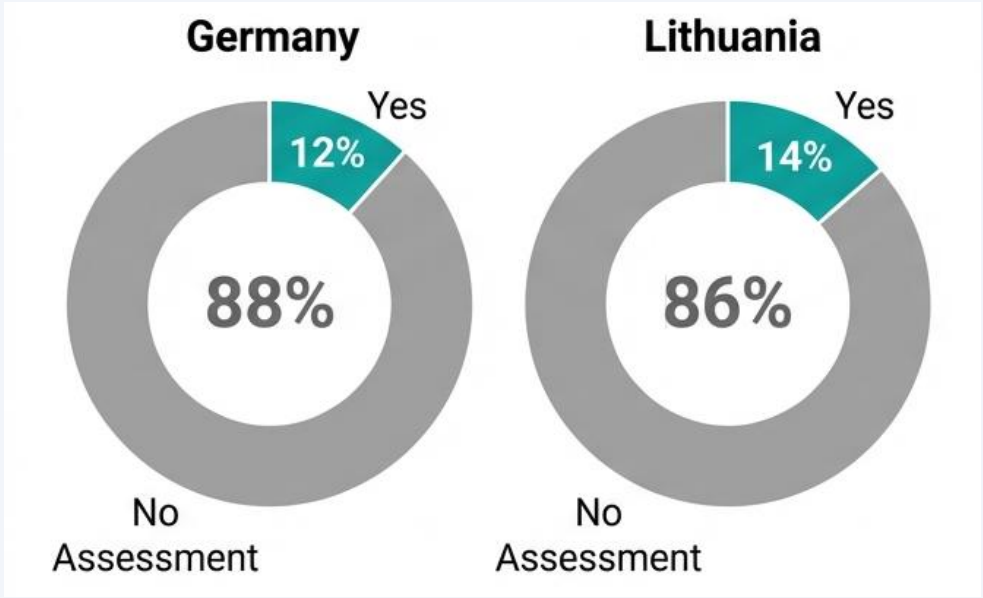
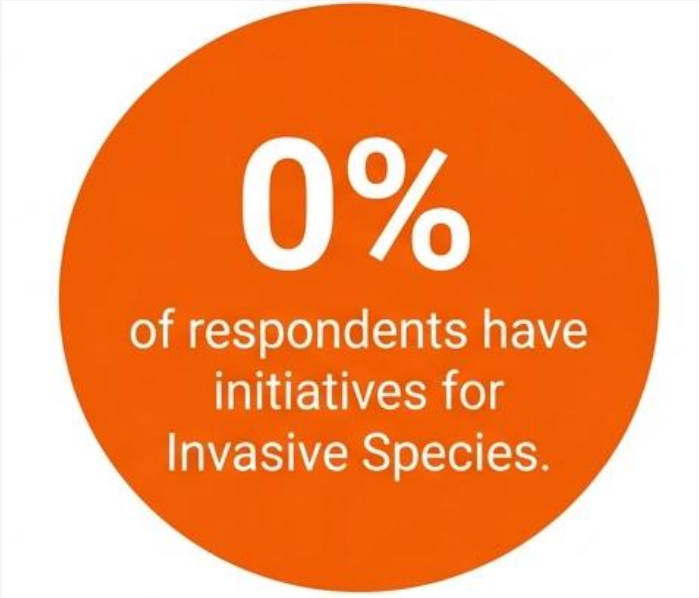
Operational Blind Spots: Water Quality & Invasive Species

Water Quality Monitoring



Without data, managers cannot detect eutrophication spikes.

Invasive Species Measures



37% believe measures are 'Not Necessary', despite hulls being a primary vector.

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Solid Waste: Good Collection, Poor Segregation

The Good News

- ✓ Most marinas have a basic collection.
- ✓ Sufficient Trash Cans: #1 Implemented Measure.
- ✓ Regular Cleanups: #2 Implemented Measure.
- ✓ 73% of German & 86% of Swedish marinas have plastic reduction measures.

The Gap

- ✓ Circularity is missing.
- ✓ Only 7 respondents confirmed having specific Recycling Facilities.
- ✓ Microplastics: Awareness is growing (Seabins), but infrastructure lags.
- ✓ Lithuanian Context: 71% of respondents have NO specific plastic reduction measures.

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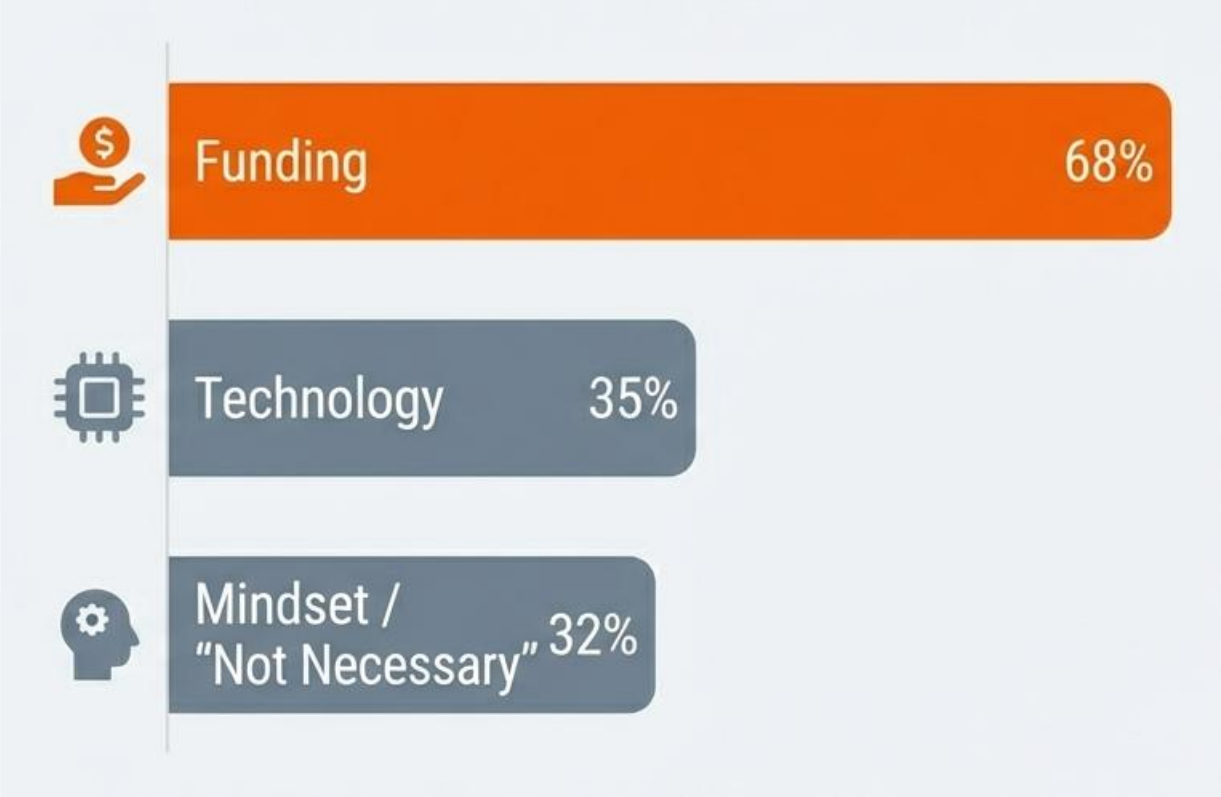
Barriers to Action: Why Change is Difficult

Managers want sustainability but face structural hurdles.



The Lithuanian Funding Gap

For Lithuanian managers, "**Financing and Grants**" is the absolute #1 requirement for improvement across all categories (wastewater, hazardous spills, plastics).

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Solution 1: Nature-Based Solution

- Concept: Artificial floating wetland and information board
- Based on natural materials and covered with selected macrophytes
- Impact: improves local water quality through nutrient reduction and fosters awareness raising
- Case Study: Marina in Mecklenburg-Western Pomerania (mooring at the jetty)

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Solution 2: Technological Interventions

The BATSECO-BOAT Model

- Context: 50% of boats were discharging sewage.
- Action: Upgraded 20 pump-out stations across Finland, Sweden, and Estonia.
- Result: Improved accessibility = Reduced illegal dumping.

The Seabin & PortBin

- Technology: Floating trash skimmers for surface debris/oil.
- Performance: Collects up to 1.5 kg of waste/day.
- Deployment: Successfully used in Kofobrzeg (Poland).

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Global Lessons: Models for the Baltic

USA: Clean Vessel Act	USA (Ohio): Green Infrastructure	New Zealand: Biofouling Control
		
A dedicated funding mechanism for pump-out stations. **Relevance:** Solves the #1 "Funding" barrier.	Permeable pavements and bioswales at Holiday Harbor Marina. **Result:** Filters phosphorus from runoff before it hits the basin.	Strict “Clean Hull” rules before arrival. **Relevance:** A blueprint for the 0% invasive species preparedness in the Baltic.

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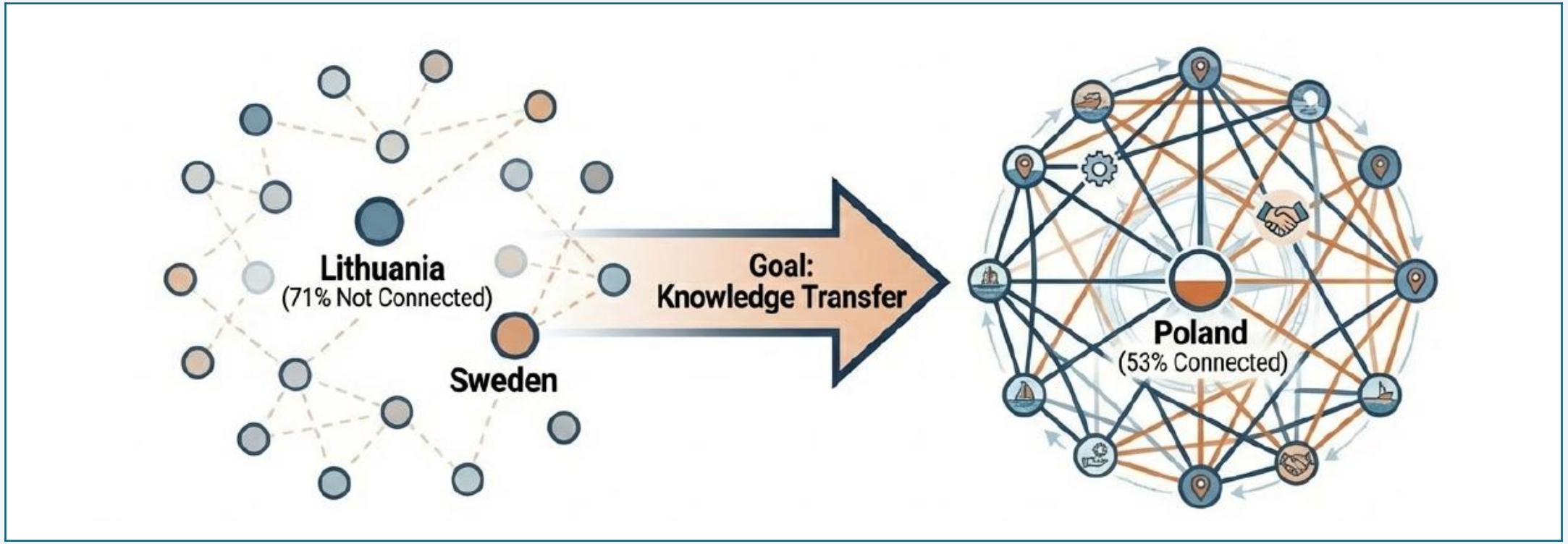
Solution 3: The Power of the Network



The Risk: Isolation leads to “reinventing the wheel” and low awareness of solutions like Seabins.

The Fix: The Sustainable Sailing Infrastructure Forum (Gdansk) and cross-border study visits

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The Manager's Action Plan:
Immediate steps based on the Benchmarking Report.

Infrastructure

- ❑ Install differentiated bins for hazardous, plastic, and organic waste.
- ❑ Invest in pump-out stations with high accessibility (easy docking).

Operations

- ❑ Standardize waste fees: Incentivize delivery, don't penalize it.
- ❑ Train staff on spill response and hazardous liquid containment.

Monitoring

- ❑ Start basic water quality assessments.
- ❑ Implement 'Check-in' protocols for biofouling/invasives.

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Charting a Cleaner Course

ECOMARINAS is closing the gap between interest and action through Pilot Investments, Toolboxes, and Environmental Risk Plans.

JOIN THE SUSTAINABLE MARINA INFRASTRUCTURE FORUM IN GDANSK 2027.

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