# THE FUTURE OF SUSTAINABLE YACHT DESIGN

WHITEPAPER ON WORKSHOP OUTCOMES



F/YACHTING



## **EXECUTIVE SUMMARY**

F/YACHTING and Water Revolution Foundation brought together a cross-section of industry stakeholders for two workshop sessions focused on advancing sustainability in yacht design. The discussions underscored the urgent need for clearer project briefs, early alignment among partners, and stronger communication throughout the design and build process. Participants also called for systemic changes in material selection, the adoption of design-for-refit principles, and the creation of an industry-wide benchmark to define environmental ambition levels. A recurring theme was the shift toward more circular, intelligent, and environmentally responsible yacht design—driven by early collaboration, conscious material choices, and shared standards that support more sustainable construction and operation. Also a new sophisticated narrative was deemed necessary to progress and excite all stakeholders involved.

### **KEY THEMES**

**Early Alignment & Collaborative Briefing:** A recurring thread across both workshops was the importance of early engagement among project stakeholders. Designers, outfitters, suppliers, and engineers are too often engaged after design decisions and budgets are locked, undermining innovation and sustainability goals.

**Insight:** Early-phase alignment protocols, including the owner/client briefing stage, can mitigate silos and create space for sustainable alternatives before constraints are embedded.

**Lifecycle Thinking & Design-for-Refit:** Interior components are frequently replaced, yet most designs still focus on initial installation. Builders and refit specialists highlighted that incorporating lifecycle strategies, like modularity, disassembly, and access planning, saves both cost and environmental burden over time.

**Insight:** Design-for-refit is a critical lever for long-term sustainability and should be baked into design education, workflows, and client expectations.

**Materials & Execution Gaps:** Material selection remains a major bottleneck. Challenges include:

- Sourcing sustainable alternatives quickly
- Balancing regulatory demands with sustainability (e.g., fire ratings)
- Lack of manufacturer documentation (e.g., EPDs, recyclability pathways)
- Sample vs. installed material mismatches

**Insight:** Visibility, documentation, and material databases are essential for better decisions. Sustainable alternatives must be supported by verified data and usability within IMO guidelines.

## **KEY THEMES**

**Emotional vs Rational Drivers:** Owners and clients make decisions emotionally, prioritising aesthetics and luxury experiences over environmental metrics. However, emotion and sustainability are not incompatible and they must be integrated.

**Insight:** Smart, elegant innovation framed as value-adding storytelling is more persuasive than technical sustainability jargon.

Lack of Industry Standards & Feedback Loops: A fragmented ecosystem and absence of shared standards lead to inconsistencies, inefficiencies, and duplicated mistakes. There is little post-project review or cross-project learning. Insight: Shared protocols, structured feedback, and open knowledge are critical to industry-wide progress.



#### **KEY OUTCOMES**

Owners Briefing Tool (Environmental Ambition Scale): A proposal to develop a questionnaire to define project ambition early, whether led by an owner, client rep, or yard. This includes a scale from 1–5, budget per m2, appetite for innovation, and visibility of advanceing features.

• Helps align all stakeholders from day one and manage expectations realistically.

**Sustainable Materials & Solutions Library:** An industry-wide, smart-tagged database that catalogues materials and components by function, lifecycle impact, application context, regulatory status, and availability.

- Features to include:
- Environmental indicators: GWP, recyclability, hazardous substances, water/energy use
- Filtering by application (e.g., high-touch, hidden areas)
- Modular strategies (e.g., disassembly, multi-material junctions)
- Qualitative filters (aesthetics, texture, acoustic properties)
- A flexible hybrid system (material-first and function-first) was seen as most effective.

**Interior Rating System:** This system would assess interiors holistically rather than by isolated materials, allowing teams to indicate ambition levels and guide client decisions. This also serves as an environmental "budget" for the design brief process.

• Encourages design teams to think in terms of total impact rather than green checkboxes.

#### **KEY OUTCOMES**

**Post-Project Review Framework:** A repeatable format to capture learnings, evaluate performance, and build cross-project insights. This should include material performance, innovation successes, and process gaps.

• Currently, critical lessons are lost as teams disband or shift to other projects.

**Design-for-Refit Protocol:** A checklist and design guide that promotes lifecycle-friendly strategies, such as modular access, service hatches, and standardised mounting systems.

• Refit professionals can contribute greatly to design intelligence if included earlier.

## **SOLUTIONS**

#### **Short-Term**

- Prototype the Owners Briefing Tool with selected shipyards/designers
- Develop a version of the Materials Library focused on adhesives, coatings, and decking alternatives
- Host micro-pilots of post-project review templates and gather feedback from builders and outfitters

#### Mid-Term

- Formalise and publish a Design-for-Refit Protocol with cross-sector input
- Train design teams and outfitters on using lifecycle tools and sustainability tags
- Expand library coverage with structured input from suppliers and LCA specialists

#### Long-Term

- Adopt the Interior Rating System as a voluntary benchmark tool across new builds and refits
- Integrate lifecycle and refit principles into design education curricula
- Standardise early-phase collaboration protocols across shipyards and outfitters.





# **CONCLUSION**

The pathway to more environmentally friendly yacht interiors is not blocked by lack of ideas or willingness, but by fragmentation, timing mismatches, and a lack of shared infrastructure. These workshops underscored the industry's readiness and the urgent need for action. Aligning with our Roadmap 2050 target of net-zero emissions by 2050, the yacht design phase is critical. Given that 80% of a yacht's environmental impact is determined during the design phase, conscious material selection and prioritising regenerative natural resources and waste reduction, is crucial for minimising the overall environmental footprint across a yacht's lifecycle.

By reframing sustainability as elegant innovation, developing tools that support smarter choices, and embedding lifecycle thinking throughout design and build processes, the superyacht industry can set a new standard for responsible luxury as the highest form of it.

"Today's owners still value differentiation and personal expression, but increasingly they want to know where things come from, how they're made and what values they represent. This is where design meets sustainability and accountability." - Markus Inabnit - F/YACHTING.

True sustainability requires rethinking materials, construction methods, and supply chains. It is not a compromise but rather a refinement of how luxury can be: thoughtful, intelligent and ethically grounded. This can be achieved by integrating sustainability at the earliest stages of the process and building strong connections between each step in the value chain. This is not a linear supply chain, it's a collaborative ecosystem. And such ecosystems thrive on transparency, shared responsibility and open knowledge.











