

Global Recreational Marine Industry **Life Cycle Assessment (LCA)** **Methodology**

Global LCA Project — supporting the Pathways to Decarbonisation Study and the Blue Boat Horizon (BBH) Methodology

Delivered by



What is a Life Cycle Assessment?

The foundations: what an LCA is, why our industry is building one, and why it needs to be global.



What is a Life Cycle Assessment?

A life cycle assessment is a systematic methodology for understanding how a product, process or service interacts with resources and systems throughout its entire journey — from raw material sourcing to end-of-life management. Analysing those interactions identifies ways to optimise resource use, enhance performance and support sustainability goals.



Why develop an LCA?

Developing a global LCA approach is a critical step in helping the recreational marine industry make informed decisions that strengthen their business amidst evolving market expectations, continue to advance innovation, and support their longstanding commitment to the environment.



Why does a global approach matter?

Harmonisation of marine standards and regulatory requirements creates certainty for the global industry, while recognising the unique diversity of the recreational marine sector and its vast portfolio of technologies, products and operations.

THE FULL LCA JOURNEY

Raw materials



Manufacture



Distribution



Use



End of life

What the Global LCA will deliver

More than a methodology — the supporting apparatus the industry needs to actually use it.

A shared framework giving the global recreational marine industry one methodology to quantify the environmental performance of a recreational boat through every phase of its life.



The methodology

The agreed rules for measuring environmental performance — scope, boundaries, functional unit and assumptions.



Standard inventory databases

Consistent, marine-relevant material and component data so two assessments can be compared.



Tools

A usable interface and test rig, deployable by builders and suppliers



Communications and education

Materials and initiatives that help manufacturers and marine organisations apply the method and explain it.

Why Life Cycle Assessment matters

LCA is fast becoming a key environmental performance indicator in our industry — for regulators, for customers and for build and operational efficiency.



Stay ahead of regulation

Upcoming European environmental legislation is mandating evidence to prove environmental claims and putting clear targets in place. An industry-built method lets us shape the rules rather than have them imposed by policy-makers.



Save energy and cost in manufacture

LCA informs the material selection and process hotspots in a build. The same insight that lowers footprint usually lowers energy bills, waste and warranty costs.



Compare alternative propulsion and material choices honestly

Only a full life cycle view shows how ICE, hybrid, electric and alternative propulsion systems and fuels really compare once manufacture, use profile and end of life are considered. The same is true of material and design choices.



Look beyond the usage phase

The *Pathways to Decarbonisation* Study showed that usage hours and long lifespans push much of a craft's impact outside propulsion — LCA cradle-to-grave is the only credible boundary.



Harmonised means comparable

One shared method, one functional unit, one set of assumptions — so consumers, dealers and financiers can compare two boats on a like-for-like basis.

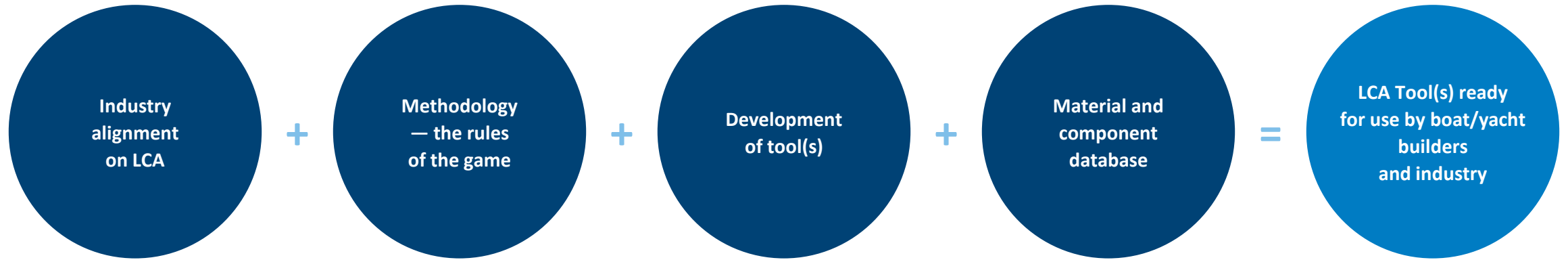


Meet market and finance pressure

Buyers, charter operators, ports, insurers and lenders already ask for verified environmental data, often driven by corporate or policy-led sustainable investment criteria. Being ready is a commercial advantage, not a cost burden.

Our strategy: what are we aiming to provide?

Four building blocks, each with its own workstream, adding up to one usable tool.



Our strategy: Propelling our Future, Blue Boat Horizon and forward

How our associations' work over recent years fits together — each project widening the scope of the last.

Widening scope — from GHG emissions and propulsion, to all indicators across design, to a full life cycle worldwide

Year 2023

Propelling our Future

ICOMIA & IMEC

- Pathways to Decarbonisation Study focused on GHG emissions
- Key elements were propulsion and use of alternative fuels and potential impacts

Year 2024+

Blue Boat Horizon

EBI

- All environmental indicators aligned with EU Product Category Rules
- Design options across life cycle stages
- European market focus

Year 2026+

Global LCA Project

ICOMIA · NMMA · EBI

- All environmental indicators across a full life cycle
- Boat/Yacht manufacture through to end-of-use, not just propulsion
- Global scope and global comparability

Our strategy: four steps to an industry-owned LCA

A global partnership of ICOMIA, NMMA and EBI, currently guided by a Global LCA Technical Committee.

1

Requirements gathering

Understand and document the global industry requirement.

- Awareness, appetite and readiness
- Knowledge, skills and cost sensitivity
- Segmented by region and discipline: builders, propulsion, component suppliers

2

The required elements

Define what an LCA for our industry must contain.

- Industry standard inputs — functional unit, lifespan, use profile
- Benchmark databases on cost and relevance
- Select a user interface / tool

3

Build and test

A test tool based on BBH V1.1 to kick-start the global standard.

- Tests BBH beyond its European first-stage focus
- Deployable rig with training and version updates
- Validated against ISO and PEF logic

4

Ready for business

An LCA solution members can actually use.

- Industry-owned method and assumptions
- Comparable outputs across markets
- Open-source, licensed or collaborative delivery

Foundation: Pathways to Decarbonisation Study + Propelling our Future + EU Blue Boat Horizon (BBH) Methodology

Financing: initial funding secured **Timeline:** 2026 / 27

Key Tasks following the provider selection process

Specialist LCA providers selected for marine relevance, expertise and delivery timeline.

TASK #1

Global stakeholder analysis & requirements gathering

Timeline: 1 – 3 months

- Stakeholder questionnaire on requirements, readiness and knowledge
- 10+ one-to-one interviews (NMMA / ICOMIA), 20-stakeholder feedback group (EBI)
- Global survey distributed through member associations

TASK #2

Technical review of the BBH methodology

Timeline: 1.4 – 2 months

- Critical review against ISO 14040/44, ISO 14067 and EU PEF logic
- Gaps and feasibility of scope boundaries, data quality and allocation
- Documented findings and recommendations

TASK #3

Development of an LCA test rig

Timeline: 3 – 5 months

- BBH-compliant deployable test rig with user input guidelines
- Ecoinvent data source; PEF / impact category outputs
- Multi-user access, version updates and group training

TASK #4

LCA database / data set analysis

Timeline: Max 2 months

- Evaluation of LCA databases for leisure marine materials and processes
- Assessment of data completeness and coverage
- Report and recommendation to the partnership

Where we are, and what happens next

The project moves from methodology review into a working, testable tool during 2026.



Achieved so far

- Global partnership formed — ICOMIA, NMMA and EBI, the first globally aligned recreational marine LCA initiative
- Blue Boat Horizon Methodology V1.1 published as the technical starting point
- Global LCA Technical Committee established
- Four RFPs scoped, providers evaluated and recommendations made
- Initial funding secured



2026

- Launch the global stakeholder study — interviews, feedback group and survey analysis
- Complete the independent technical review of BBH V1.1, close the identified gaps and prepare an improvements list
- Build and pilot the LCA test tool with a first group of member companies
- Report back to regional groups on findings and requirements
- Benchmark and select the underlying LCA database



Why the timing matters: EU Ecodesign and other requirements are starting. A method built by the industry, tested globally and applied consistently is far more efficient than regional methods retro-fitted to various sets of regulation.

How you can shape this

The method will only be credible worldwide if boat/yacht builders, propulsion providers, suppliers and associations are in the room while it is written.



Nominate stakeholders

Put forward builders, propulsion and component suppliers for the stakeholder feedback group, and for selected one-to-one interviews.



Circulate the survey

Distribute the stakeholder survey through your national association so the sample genuinely reflects company sizes and boat types globally.



Join the Technical Committee and Pilot Group

Bring regional expertise into the Global LCA Technical Committee, and volunteer companies for the pilot test group as the rig is developed.



Tell us your regional reality

Regulations, supply chain structure, data availability and export requirements differ by market — we need feedback on those differences.

One industry. One method. Comparable data.

