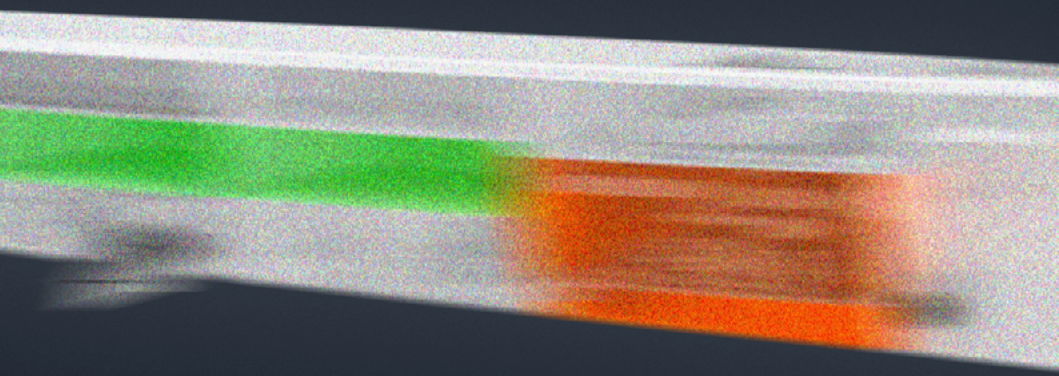
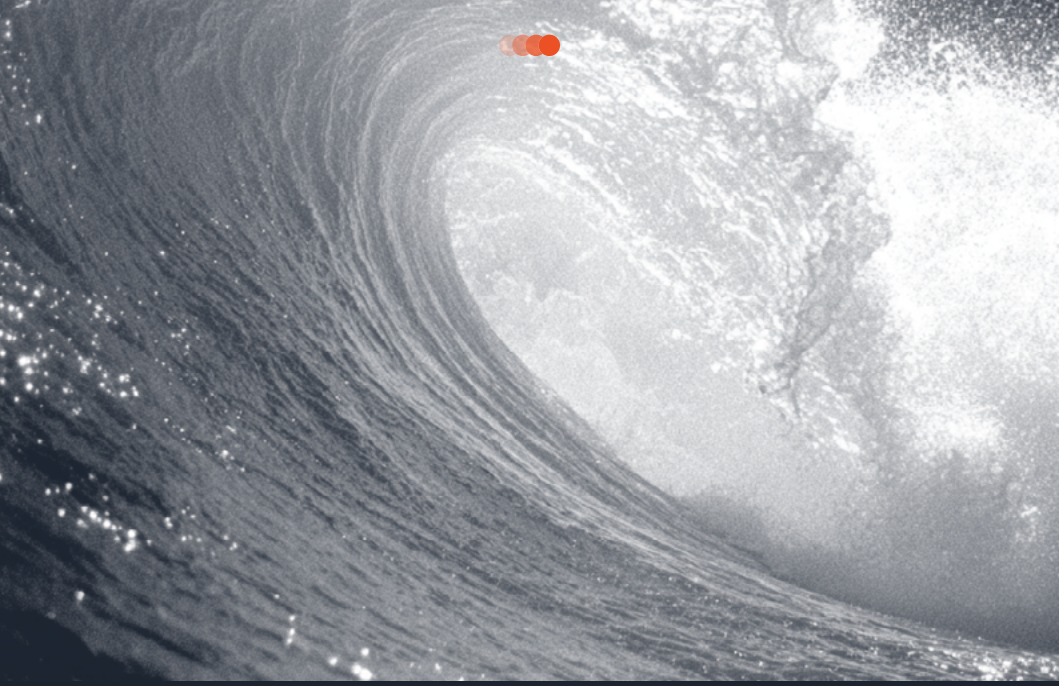

OUTLIER

AN OUTLIER ISN'T JUST DATA, IT'S A STORY WAITING TO BE TOLD.



OUTLIER:

A person, idea, or thing that is markedly different or unusual compared to others.



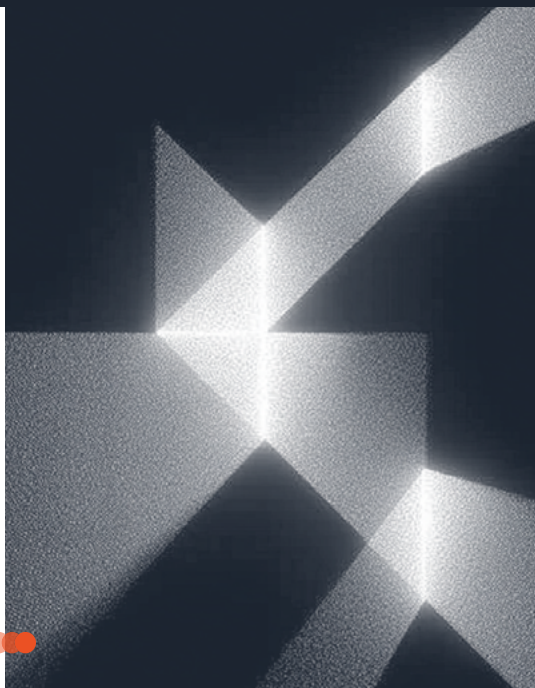
FOR GENERATIONS,
WE HAVE FOLLOWED
THE CURRENT.
A DEFINED PATH
OF EXPECTATION,
OF ESTABLISHED
NORMS.

A NEW QUESTION

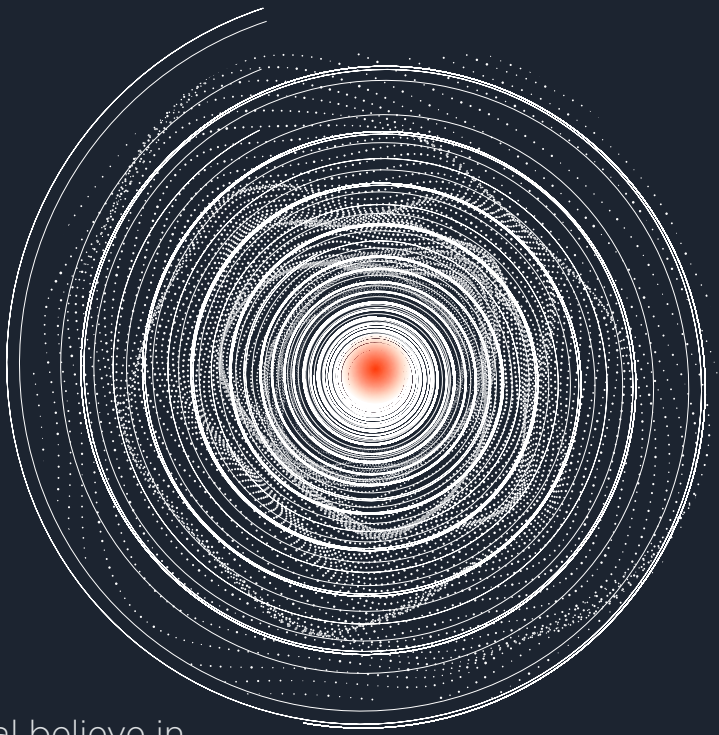
What if the path was not the destination, but the starting point for something more?

Yachts are often bound by tradition. Conventional technical backbones often limit the stylistic and spatial freedom available to designers.

What if we rethought the foundation to unlock new design possibilities?



THE CATALYST



Lateral believe in **engineering enabling design innovation.** It acts as a catalyst for many Research & Development projects.

Our latest technical platform, **Outlier**, is born from that very catalyst.

THE BASELINE

Outlier has been engineered to challenge conventions, particularly within the 2000 gross tonnage (GT) segment, a pivotal space in the market where Owners seek a wider capability from their yachting experience. At this scale, yachts offer the potential to include features such as swimming pools, certified helipads, more separated living areas, and beach clubs and dedicated tender storage just above the waterline.

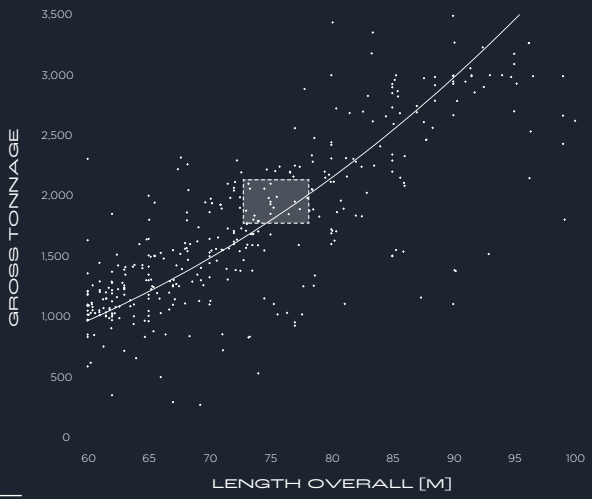
Beyond lifestyle, Owners also benefit from enhanced range and performance, unlocking greater freedom to explore.

To find an Outlier, we need to establish a Baseline.

Market data suggests that a typical 2000 GT yacht measures 75–78 meters in length, achieves a top speed of 17 knots, and offers a range of 5,500 nautical miles.

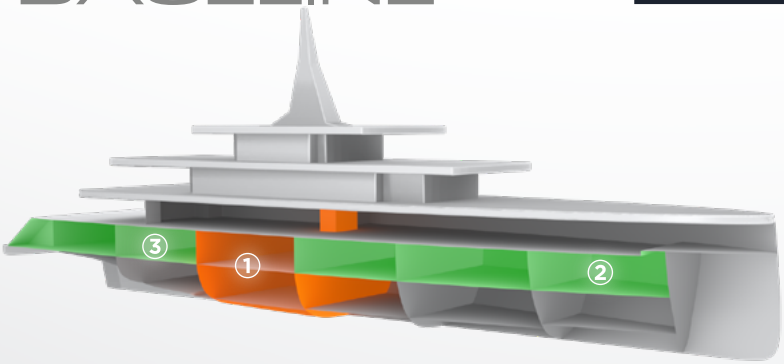
This is our Baseline.

2000 GT Market



THE BASELINE

CONVENTIONAL LAYOUT
| 2000 GT YACHT



Baseline layout constraints

1 Double-height engine room disrupts the flow across the lower deck, whilst also housing the yacht's noisiest equipment at its core.

2 Forward living areas can experience up to 150% higher vertical accelerations compared to midship areas when underway.

3 Deck height and watertight subdivisions may limit tender size and beach club layout.

COULD WE
CREATE A
MORE EFFICIENT
TECHNICAL
BACKBONE,

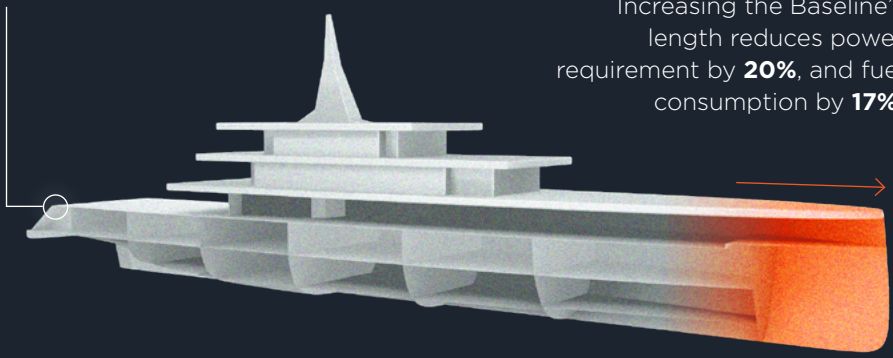
ONE THAT
ENHANCES
THE ONBOARD
EXPERIENCE AND
ENABLES DESIGN
POTENTIAL?

THE ART OF REFINEMENT

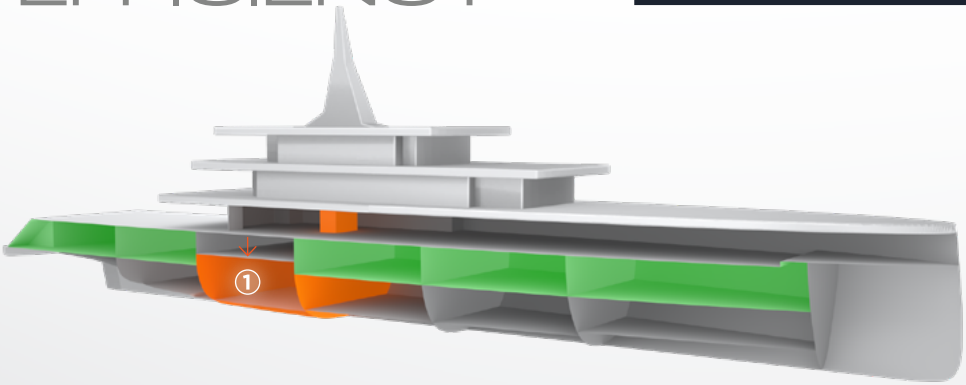
Outlier's foundation draws on over 30 years of naval architecture expertise and represents the third generation of Lateral's Ultra-Efficient (UE) hull series. Developed through real-world testing, CFD simulation, and close design collaboration, the UE hull form has been reimagined for the 2,000 GT market. Outlier's high length-displacement ratio and slender, optimised hull, extended by 16%, stays within loadline thresholds while delivering significantly lower resistance. This allows Outlier to match the Baseline's performance with significantly reduced power demand, enabling smaller main machinery and the integration of propulsion systems below the Lower Deck.

Baseline uses 950t of fuel annually, with a typical power requirement of 3.4MW.

Increasing the Baseline's length reduces power requirement by **20%**, and fuel consumption by **17%.**



IMPROVED EFFICIENCY



Benefits of the Ultra-Efficient hull form

1 Outlier achieves similar cruising speeds and range requirements as the Baseline, but with lower power requirements resulting in smaller machinery enabling a more compact and efficient engine room.

SHIFT IN PERSPECTIVE

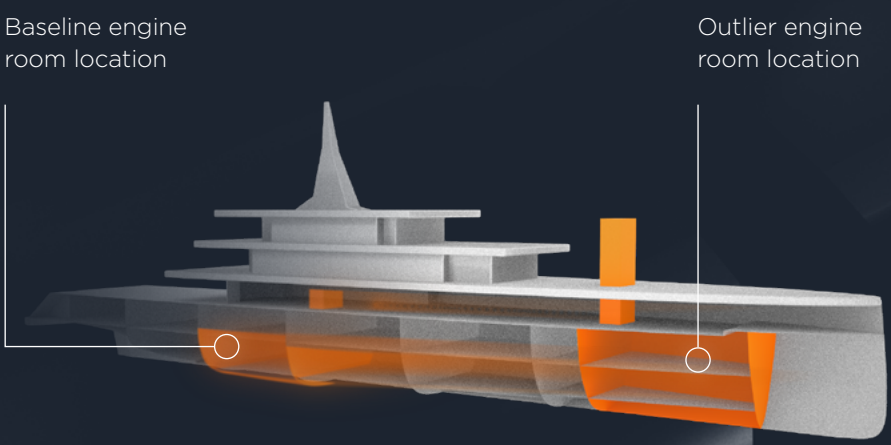
One of the Baseline layout's core limitations is the placement of major technical machinery at the heart of the yacht, introducing unwanted noise and vibration where primary living spaces are located.

A compact engine room opens the door to layout changes beyond the Baseline.

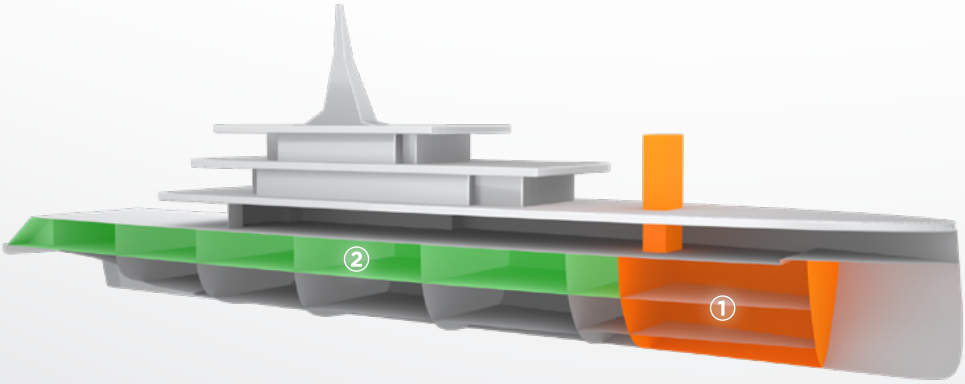
But only through electrification of the onboard energy system can the platform fully realise a new spatial architecture.

Can we elevate the user experience by shifting the engine room?

What possibilities could this unlock, for both Owner and designer?



IMPROVED EXPERIENCE



The forward engine room enables new possibilities in flow and design.

1 Positioning the main machinery forward reduces the impact of noise and vibration away from the main luxury areas.

2 This not only places the living spaces in a more comfortable location onboard, but unlocks a continuous flow, elevating the user experience.

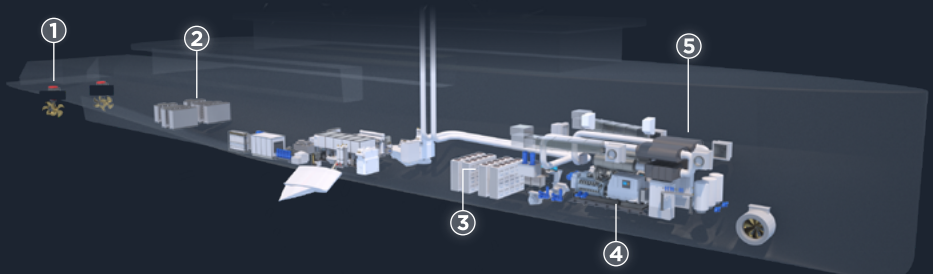
ENERGY ARCHITECTURE

The creative layout of Outlier is enabled via an all electric propulsion and energy system architecture.

Lateral's Electric Hybrid system incorporates batteries as the primary means of energy delivery, permitting the varying power demands of hotel, propulsion and manoeuvring loads to be seamlessly met.

Diesel generators are provided for battery charging and high speed cruising, selected free from the constraints of a conventional diesel electric and purely on the basis of efficiency and energy density. The result is an elegant, flexible solution which is compact and distributes primary machinery spaces away from key living areas enabling better flow.

SILENT | LOCALLY EMISSION FREE | COMPACT | FUTURE-PROOF



1 Azimuthing Propellers

2 Energy Storage System | 4MWh

3 DC Propulsion Switchboard

4 Variable Speed Generators 2 x 1200 kW

5 IMO Tier III Exhaust System

OUTLIER PLATFORM

The platform's technical backbone creates new possibilities within the 2000 GT market.

OUTLIER PLATFORM
| 2000 GT YACHT

Benefits of the Outlier platform

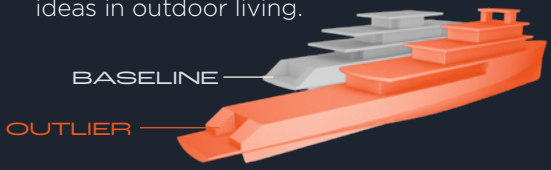
- Greater design potential due to improved flow of living space on Lower Deck.
- Increased vessel length enables maximised exterior deck areas.
- Forward tender bay to maximise tender heights.
- Equipped with Lateral's Electric Hybrid system with potential for silent operations.
- Living spaces further aft offering better comfort from pitch & heave motions.
- Reduced noise & vibration in living areas due to forward engine room.
- 20% more efficient enabled by Lateral's UE hull form.

DESIGN FREEDOM

Outlier is engineered to enable design innovation. By repositioning the engine room, the platform presents new possibilities for how space is conceived, both inside and out.

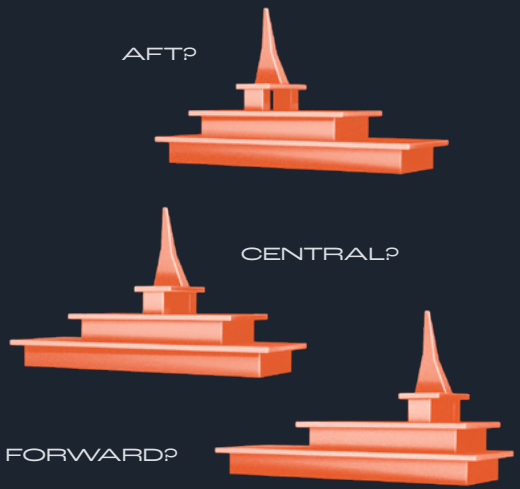
On lower deck, this shift creates an uninterrupted flow of living spaces, free from major technical intrusions.

While interior volume remains consistent with the Baseline, the reconfigured layout delivers a **40%** increase in exterior space, expanding the canvas for designers to explore new ideas in outdoor living.



One key consideration when relocating the engine room forward is mast placement. With the machinery now in a forward position, exhaust systems must adapt accordingly.

Lateral has engineered the platform with the flexibility to accommodate a range of potential profile solutions free from design limitations.



OUTLIER I

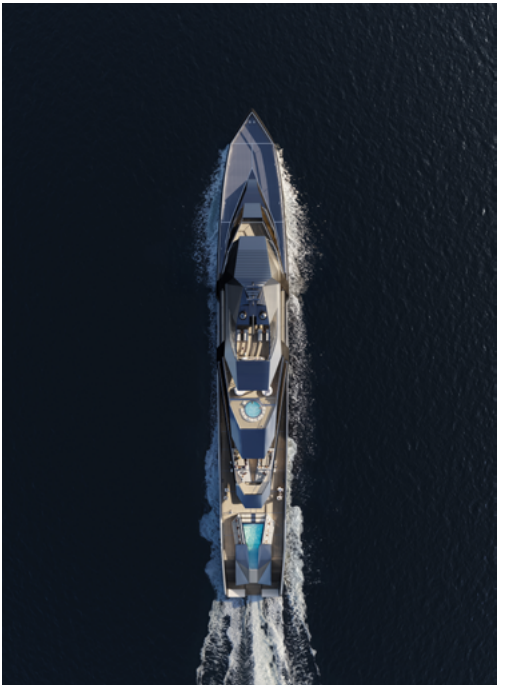
LATERAL

Foster + Partners

Lateral and Foster + Partners have collaborated on the creation of Outlier 1, a reinterpretation of the 2000 GT superyacht that fuses design innovation with engineering precision.

Outlier 1 features an ultra-efficient hull form equipped with the latest evolution of podded propulsion and electrical power, which allows the engine room to be placed forward of the guest areas, unlocking a myriad of spatial benefits many of which are only found in 5000 GT+ superyachts.

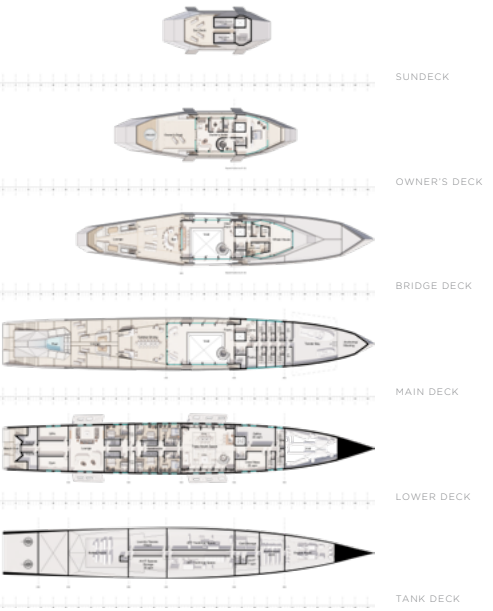
40% MORE DECK SPACE



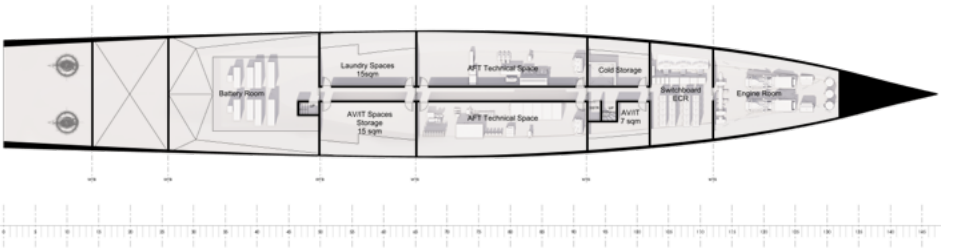
Top View
Outlier I

TRIPLE-HEIGHT DAYLIT LIVING

GUEST SPACES REIMAGINED

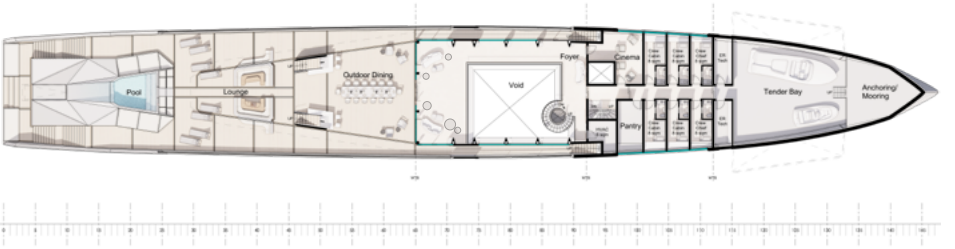


TANK DECK

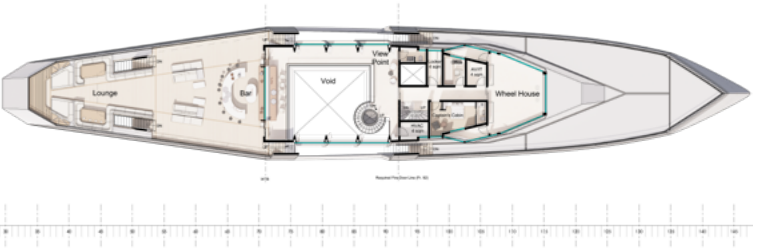


LOWER DECK

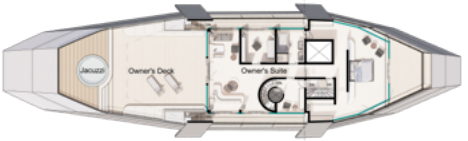
MAIN DECK



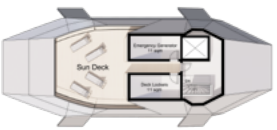
BRIDGE DECK



OWNER'S DECK

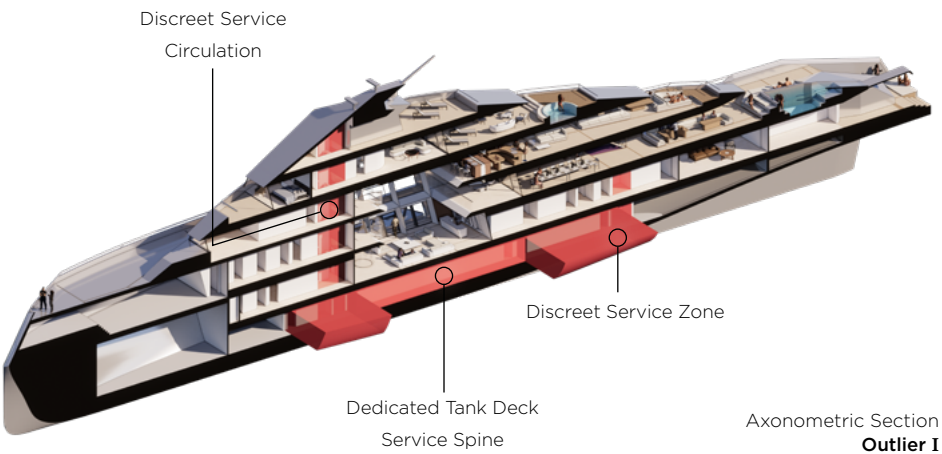


SUN DECK



GET CLOSER TO THE WATER

ENHANCED GUEST & CREW INTERACTION



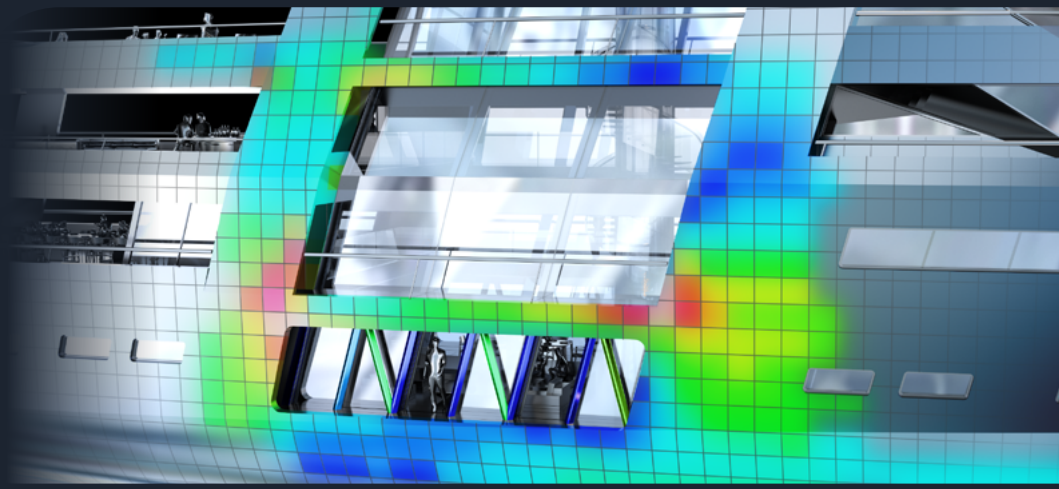
Axonometric Section
Outlier I

ICONIC SILHOUETTE

The Bow
Outlier I

OUTLIER
I

Elevation
Outlier I



BEYOND CONVENTION

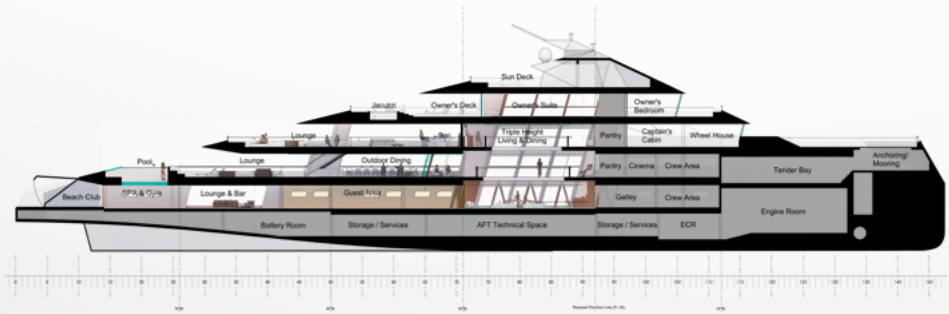
Freedom in design often leads to structural solutions that challenge convention.

Outlier gives designers the freedom to rethink layout, spatial flow, and architectural hierarchy. But when form pushes the boundaries of function, feasibility must be proven.

Rather than leaving validation to later stages, we explored and tested ideas from the outset, applying rigorous analysis and iteration to prove viability. This approach ensures concepts are not only ambitious but grounded in technical reality, giving confidence in delivering on design intent without compromise.

OUTLIER

I



Platform Particulars

Length Overall	**88.5 m**
Length Waterline	**88.5 m**
Beam (Moulded)	**12.9 m**
Draught (Full Load)	**3.45 m**
Gross Tonnage	**2000**
Notation	**REG Yacht Code Part A**
Propulsion Architecture	**Electric Hybrid**
Energy Storage System	**4.0 MWh**
Boost Mode Speed (2hrs)	**17.5 knots**
Guest Sustained Speed	**15.5 knots**
Range Speed	**11.5 knots**
Range	**5500 nm**
Exterior/Interior Design	**Foster + Partners**

ENGINEERED BY

LATERAL

NAVAL ARCHITECTS

PLATFORM SCOPE

Outlier's architecture is not fixed to a single size.

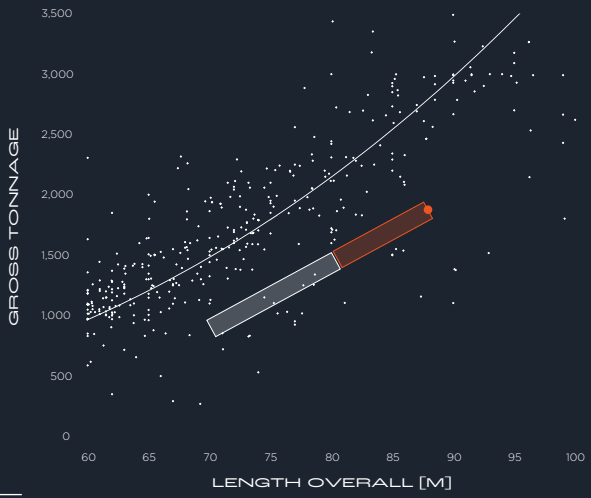
While it was engineered with the 2000 GT market in mind, the platform can be scaled effectively to support smaller formats, including 1500 GT and 950 GT design thresholds.

This allows Owners to take advantage of Outlier's platform in various forms to benefit from improved efficiency and all round user experience.

OUTLIER

APPROX DESIGN THRESHOLD (1500 GT) - COMPLIANT DOUBLE BOTTOM

APPROX DESIGN THRESHOLD (950 GT) - BUILDABLE GIRDER DEPTH



Outlier Platform Design Range

LATERAL

NAVAL ARCHITECTS