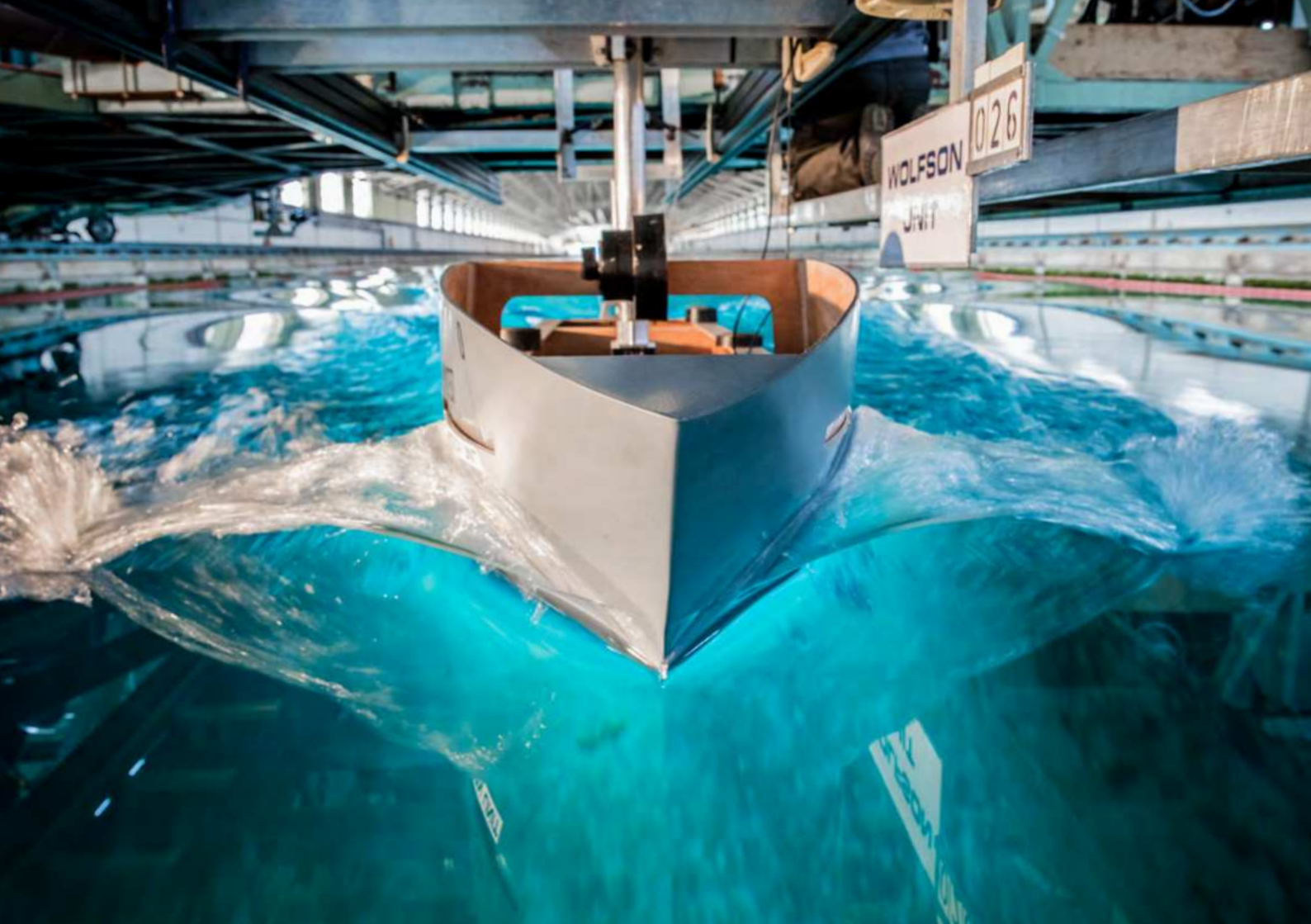

VAN OOSSANEN
NAVAL ARCHITECTS
KNOWLEDGE DRIVEN PERFORMANCE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KNOWLEDGE DRIVES INNOVATION
INNOVATION DRIVES PERFORMANCE

There's nothing we love more than meeting and talking to you, the people involved in or connected to the ship- and yacht-building industries around the world – from designers to shipyards, from naval architects to yacht and ship owners.

Whatever our involvement with boats, ships or yachts may be, you and we all love talking about and sharing our knowledge and expertise, and even the tales of our exploits and adventures out on the high seas!

Each person's notion of what Van Oossanen did varied greatly from individual to individual or from company to company, and many were even surprised to find out about the 'other things' we did and can do.

Feel free to read this brochure from cover to cover or dive into whichever section sounds most appealing and then dip back into it from time to time to learn more about the other areas of our work.

We hope it makes for an informative and interesting read and the topic of many future discussions the next time we meet. Until then!

Yours,
Perry & Niels

VAN OOSSANEN
NAVAL ARCHITECTS

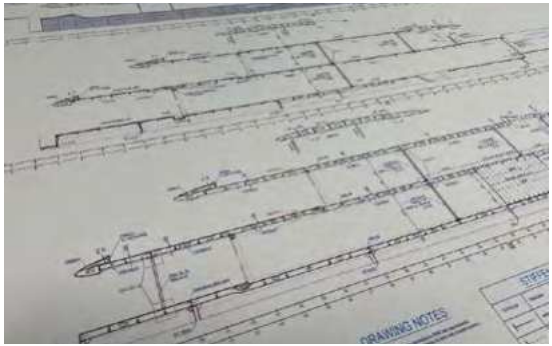
YOUR VESSEL – OUR MISSION

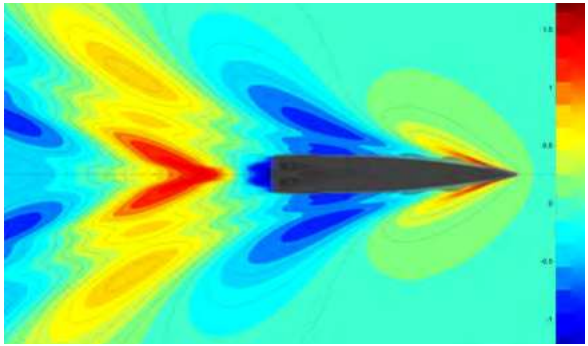
VISION

The best your vessel can be! We look at your boat, ship or yacht's design from every angle imaginable to help you enhance its performance in every way possible. From hull form to energy-saving appendages, from shipyard construction methods to systems installation.

STRATEGY

A dedicated team of experts! We're a team of experts covering every relevant discipline of naval architecture, hydrodynamics and design management.
A team that dedicates itself to ongoing research & development and constant innovation to improve not only your vessel's performance but also our own internal processes and effectiveness. A win-win for all.





PERFORMANCE

You're not going to entrust the design of your or your client's boat, ship or yacht to just any naval architect. There are simply too many variables at stake: comfort, efficiency, sustainability, operability and seaworthiness.

This is where almost thirty years of continuous dedication to research & development and innovation in naval architecture, hydrodynamics and design management has paid off. And the results speak for themselves. We currently hold multiple patents for innovations relating to hull performance.
For example, the Wolfson Unit at the University of Southampton found our patented Fast Displacement Hull Form (FDHF) to be the most efficient hull form it had ever tested.

And it's with good reason that we regularly win international awards for 'Best Naval Architect' and 'Innovation', and that even other naval architects come to us for advice. Imitation is the sincerest form of flattery, so it's no surprise that there are numerous 'copycat' versions of our hull designs out there, too. Nonetheless, virtually every boatyard, shipyard and yacht builder in the Netherlands – and beyond – knows when and where to find us when performance really matters.

NAVAL ARCHITECTURE

It's in our DNA as naval architects and hydrodynamicists to strive constantly for the highest levels of performance, operability and comfort on every vessel – from preliminary to final design.

Our innovative and proven hull forms, such as our patented Fast Displacement Hull Form (FDHF), guarantee maximum performance and comfort at all speeds. And as a member of the Water Revolution Foundation, it goes without saying that we take sustainability very seriously, which is why we can advise you how to make your vessel as environmentally friendly and sustainable as possible.

We're highly familiar with the existing requirements and technologies to achieve this, yet can respond rapidly and adapt agilely to any new and emerging design requirements.

Our slogan is knowledge-driven performance – not only your vessel's performance, but our own design process performance, too!

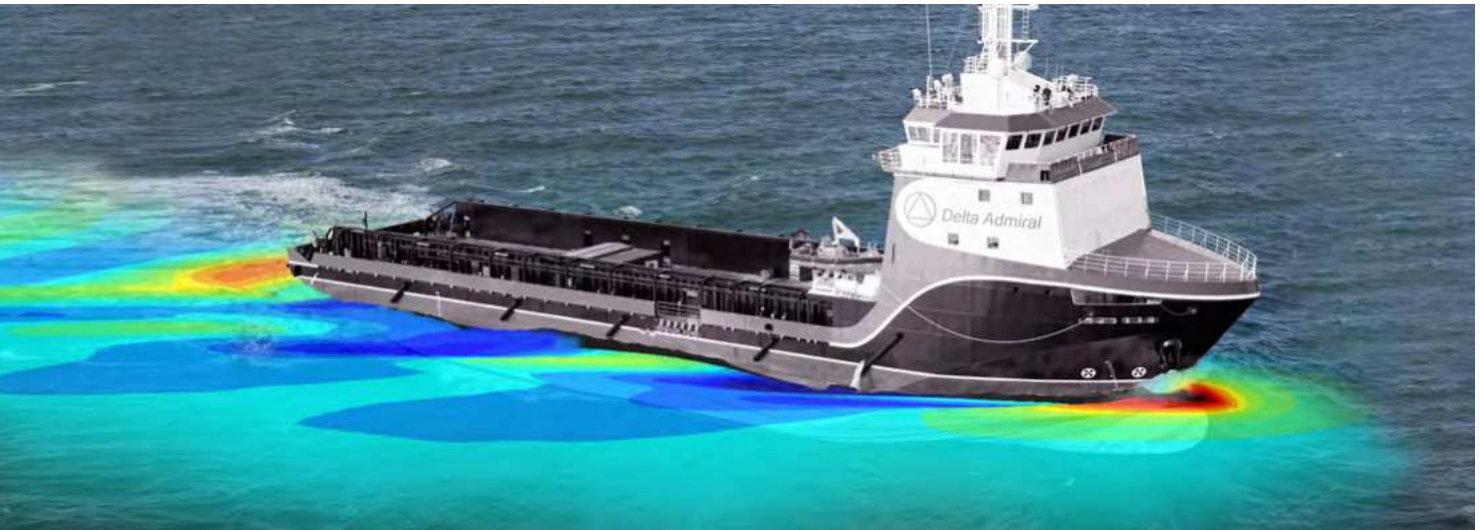
FLUID DYNAMICS

There's one area of hydrodynamics and naval architecture in which we excel in particular – state-of-the-art computational fluid dynamics or CFD for short.

We embraced CFD when it first became commercially available and have been fine-tuning our algorithms ever since, which is why owners, shipyards and even other naval architects turn to us for our CFD expertise.

You too can use CFD to eliminate many performance-related contract risks at an early stage in your design process. Our professional interpretation then allows you to modify and optimise your design to achieve lower-rated propulsion systems and reduced accelerations, motions and emissions.

What's more, CFD is nowadays at least as accurate and often more economically feasible than traditional tank testing, especially in the pre-contract phase of a project and the early design stages.



ENGINEERING

It's not just about what's below the waterline – that's important, for sure. But it's only one piece of the puzzle.

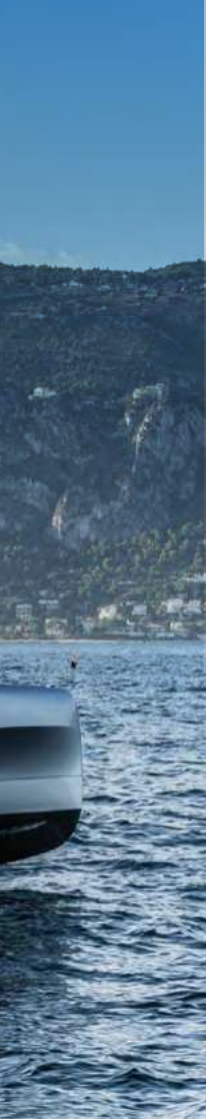
Our expertise extends above the waterline and beyond the drawing board to encompass your vessel's entire detailed engineering and production design. Our highly skilled and seasoned engineers know exactly how to translate our naval architects' concepts to the practical realities and capabilities of your vessel's shipbuilding yard.

Using advanced 3D tools and modelling, we provide comprehensive building kit documentation and manuals, covering structural fabrication, systems installation and outfitting – all tailored to owners' and builders' specific requirements.

INNOVATIONS

It's in our nature to innovate. Innovation grows on a solid foundation of continuous research and development. That's why we invest more than 20% of our time and capacity on in-house R&D projects.

Knowledge drives innovation. Innovation drives performance. Keep reading to find out more about our knowledge-driven performance.



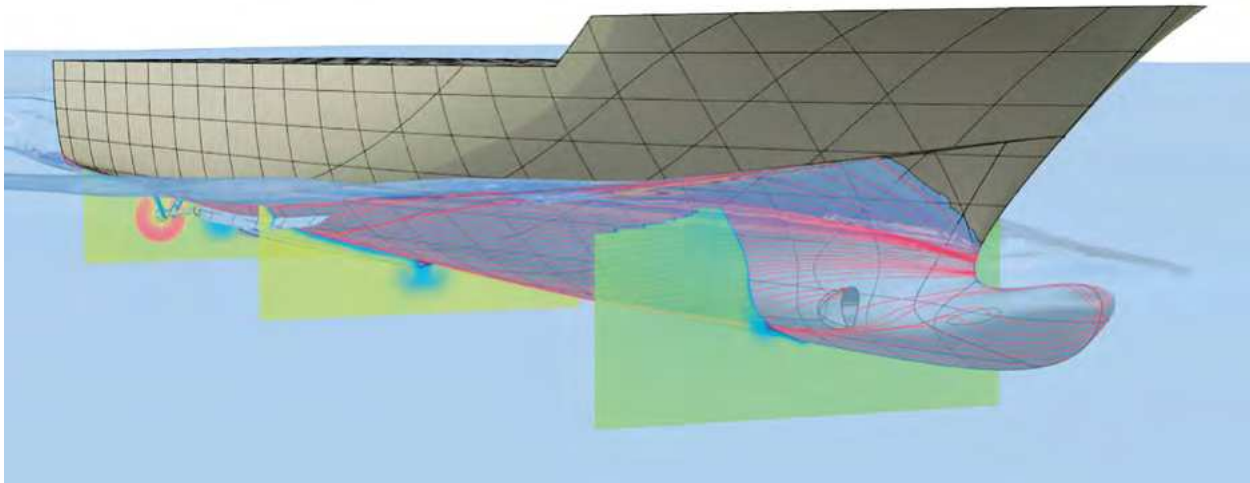
FAST DISPLACEMENT HULL FORM

We developed our patented Fast Displacement Hull Form (FDHF) to achieve what traditional hull forms fail to achieve – efficiency and comfort across a vessel's entire speed range. The FDHF performs better than conventional displacement and semi-displacement hull forms for a wide range of boats, ships and yachts.

For example, our FDHF's resistance values are typically around 20% lower than those of a well-designed hard-chine hull form at semi-displacement speeds and continues to perform better all the way up to planing speeds.

BENEFITS

- optimal performance at all speeds
- improved seakeeping & greater comfort
- wide range of applications & propulsion systems



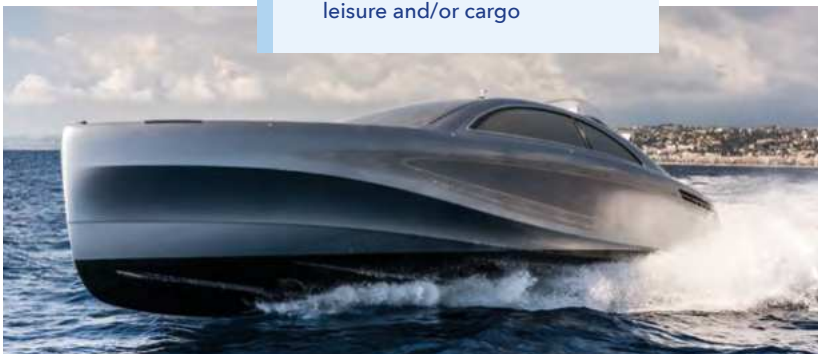
FDXL/FPHF

FAST DISPLACEMENT XL®

Our patented Fast Displacement XL® (FDXL) takes the FDHF concept one step further to achieve the maximum possible length for a given gross tonnage – typically around 20% longer – increasing available space below deck and above deck.

BENEFITS

- all the FDHF's benefits plus ...
- maximum length for a given or restricted tonnage
- extra exterior deck space for leisure and/or cargo



BENEFITS

- optimised for high-speed boats
- improved seakeeping & greater comfort
- wide range of applications & propulsion systems

FAST-PLANING HULL FORM

We developed the Fast-Planing Hull Form (FPHF) to meet the exacting requirements of high-speed boat builders and owners. It takes hard-chine hull design to the next level for ultimate performance, efficiency and comfort at high speeds.

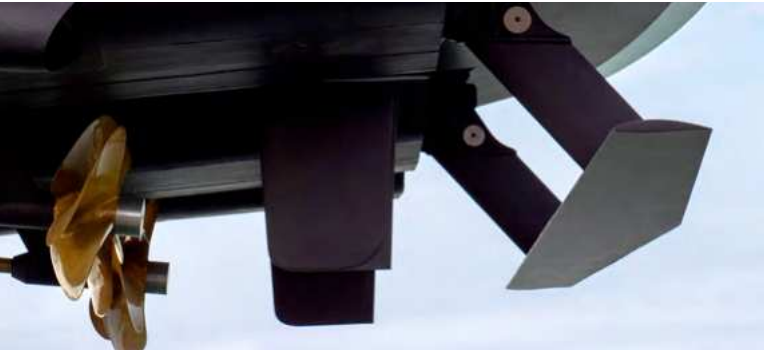
HULL VANE/FOIL ASSIST

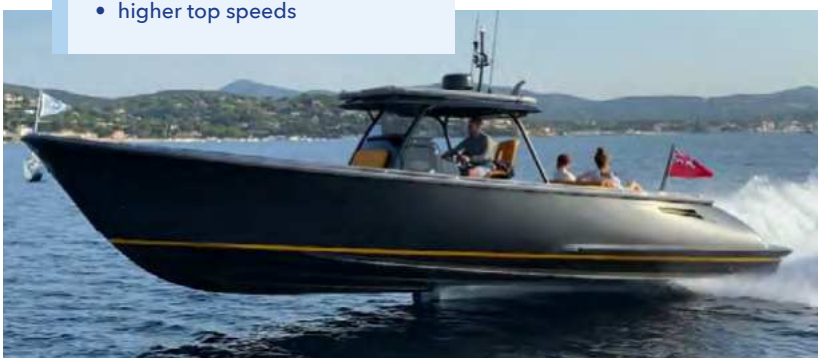
HULL VANE®

The Hull Vane® is a proven energy-saving device for medium-speed displacement vessels – custom-designed to achieve the highest level of performance.

BENEFITS

- greater comfort & operability
- reduced fuel consumption, costs & CO_2 emission levels
- higher top speeds





BENEFITS

- increased speed & efficiency
- greater comfort even in choppy conditions
- indispensable enhancement for virtually every planing vessel

FOIL ASSIST

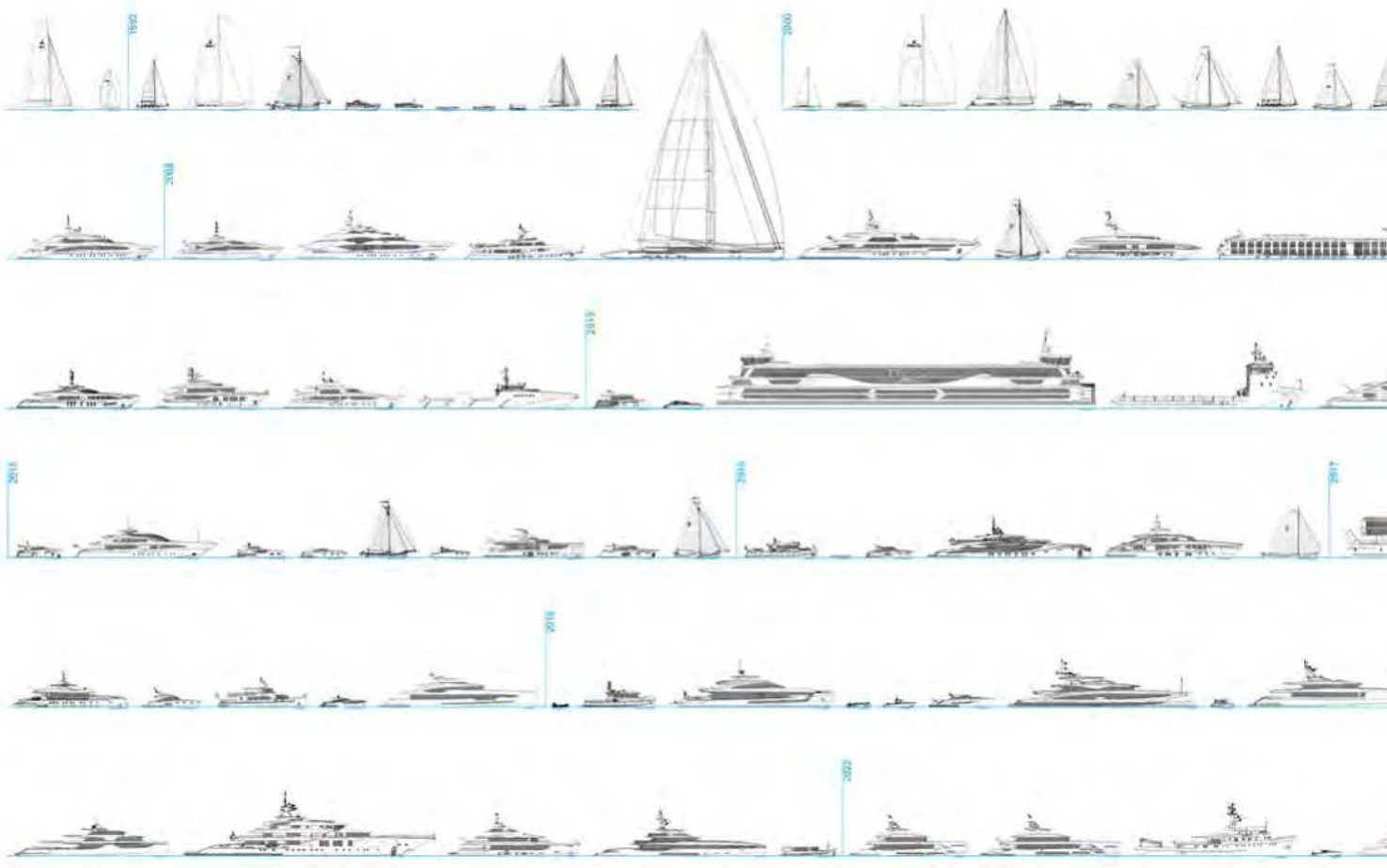
The Foil Assist is a partial hydrofoil, or small passive wing, mounted amidships under the hull of a high-speed planing boat.

VAN OOSSANEN NAVAL ARCHITECTS

Both Perry and Niels are all-round naval architects yet specialise in hydrodynamics, performance prediction and design process optimisation. They also joined Van Oossanen Naval Architects around the same time in 2001. In 2012, they took over at the helm of the company, replacing Perry's father, Peter van Oossanen.

Perry (>>) is in charge of the company's large yacht and ship design projects and was instrumental in developing the revolutionary, patented Fast Displacement Hull Form (FDHF). He specialises in naval architecture, yacht & hull form design, tank testing and performance analysis & optimisation.

Niels (<<) is in charge of smaller special-purpose vessels up to 24 metres in length, as well as naval architecture, optimisation and computational fluid dynamics (CFD) of both hull forms and appendages. He specialises in hydrodynamics, CFD and performance optimisation.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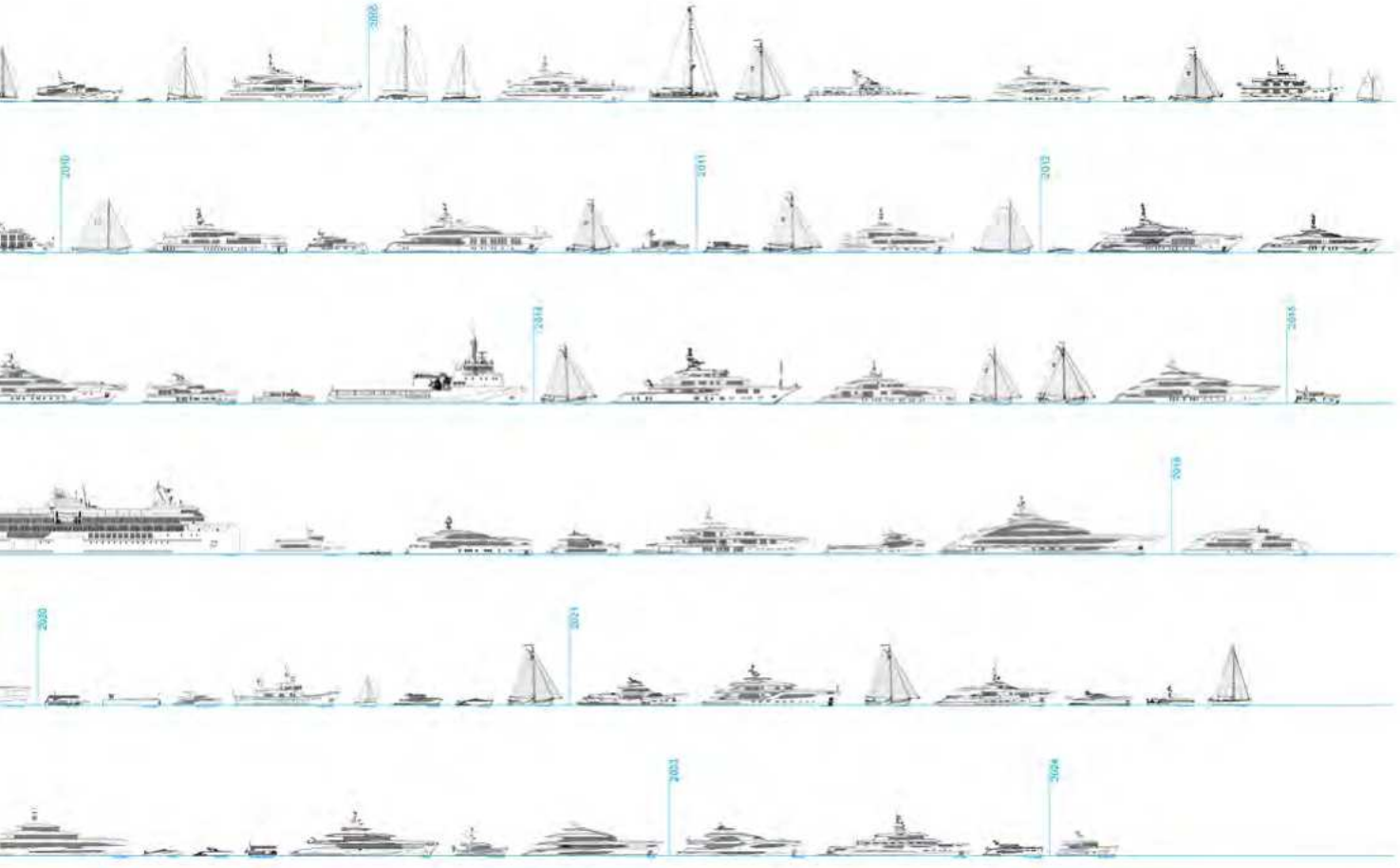
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DESIGN MANAGEMENT

The overall design process is crucial on a project as complex as building a ship or yacht. A well-planned project provides opportunities to manage and eliminate contractual and building risks at an early stage while ensuring a smooth handover to the construction team at the shipyard.

Conversely, unforeseen delays at the design and engineering stage can cascade throughout the remainder of a project. Managing your vessel's design process properly is therefore a crucial task and needs to be tailored to your specific requirements.

DESIGN PROCESS

We approach every new design project by first understanding all our client's requirements and expectations – many of which are often unspoken – and then determining the implications these will have on the design.

Needless to say, shipbuilders also have specific requirements relating to the construction information they'll receive once we've completed our design and engineering work, much of which simply isn't available at the outset. Nonetheless, with decades of experience and expertise behind us, we've mastered how to initiate projects so that both the client's and the shipbuilder's requirements remain fully aligned throughout your vessel's design, engineering and construction.

We've learnt that the most important decisions – those determining 90% of the project's outcome and success – are often made during the first 10% of the project.

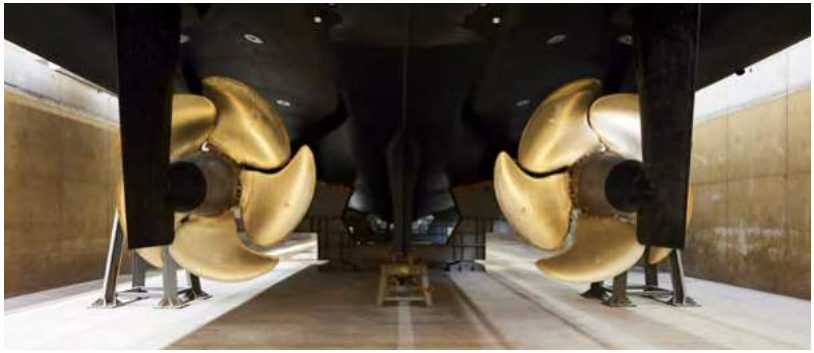
This is why we developed our internal design management process to be as flexible as possible so we can tailor it to your needs and have the right information available for the right people at the right time. To achieve this, we've established close working partnerships with numerous leading shipbuilding yards and developed a full understanding of their production facilities, standards, processes and philosophies.

REDUCED RISK & INTEGRATED DESIGN MANAGEMENT

When creating any design – from initial draft to final blueprint – it's vital that each and every design decision is transparent to all parties involved and remains aligned with all their requirements.

This is no mean feat but as naval architects we're used to being at the centre of this network and managing the integration and alignment of the design requirements coming to us from all the suppliers, contractors and engineering disciplines involved.

In our eyes, achieving this feat and exceeding your design brief and expectations are what defines a successful project – not only within the scope of our own design work but throughout your project as a whole.



SPIRAL OF PERFORMANCE

DESIGN MANAGEMENT

Management of the entire design process, communication, information flow, standards, details and schedule.

A CONCEPT DESIGN

Development, definition and feasibility of the project.

B PRELIMINARY DESIGN

Iterative process to develop the concept design towards a 'design freeze'.

C FINAL DESIGN

Development of full package for plan approval by the Classification Society.

D PRODUCTION DESIGN PREPARATIONS

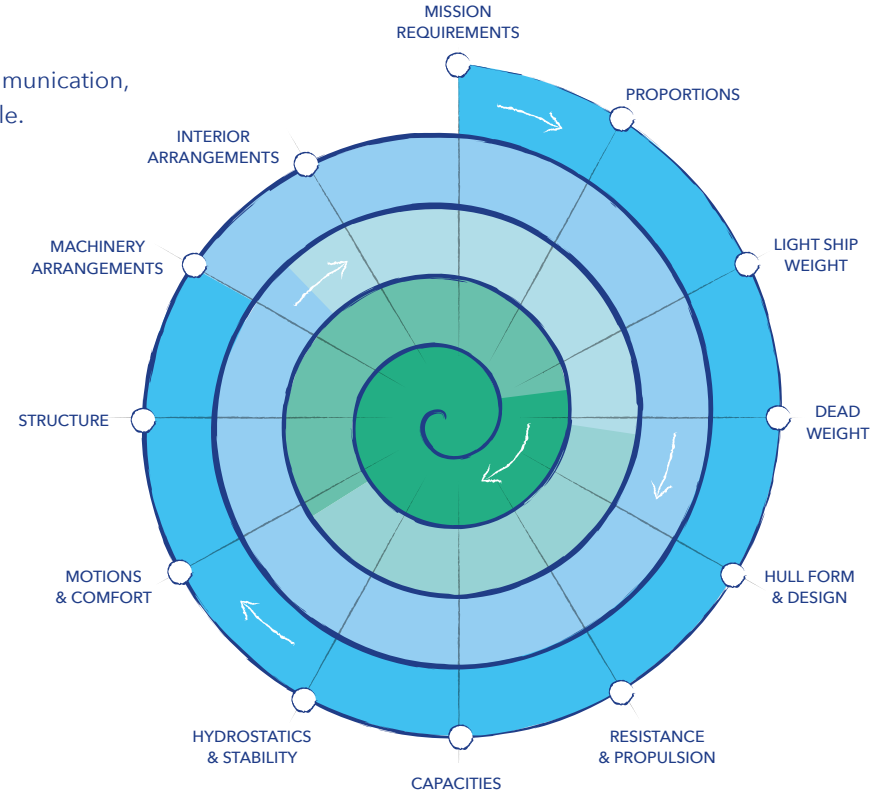
Guarantee of a tight connection between Preliminary and Final Design and the actual Production Design Phases.

E PRODUCTION DESIGN

Translation of the design documentation into an engineered building kit and workshop documentation for structural, mechanical and outfitting assembly.

X PRODUCTION AND COMMISSIONING

Production Support, Noise & Vibration Surveys, Weight Monitoring, Launch Support, Sea Trials, As-Built Drawings.



MORE THAN 300 VESSELS LAUNCHED












AWARD WINNING YACHTS









VAN OOSSANEN
NAVAL ARCHITECTS

YOUR PROJECT?

VAN OOSSANEN

NAVAL ARCHITECTS

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