Key Partners



Strategic Joint Venture

 $A stican: 10,000T \ syncrolift; \ CEO \ open \ to \\ innovation$

- Astander: Strong relationships; CTO actively engaged
- MB92: Head of Projects interest; but don't want to be the first
- Astilleros de Mallorca: Seeking new lift solutions

Technical & Validation

- DNV/Lloyd's Register: For certification.
- CompassIS: Digital Twin development (€540K quote; equity talks possible).
- UPC (Polytechnic Univ. Catalunya): Prototype testing via master's thesis.

Funding & Commercial Allies

- Keiretsu Forum Spain: Investor pitch
- Briseida Sea Ventures (Junquera Group): Naval-focused VC; potential tech-for-equity deal.

Construction & Logistics

- Dragados: Potential builder (Barcelona syncrolift experience).
- V de Bravado/SYM Naval: Offering dock space for 20T prototype testing

Competitors to Monitor

• Pearlson: Syncrolift incumbents; highrisk potential collaboration.

Key Activities



Design and Engineering

Creating innovative and efficient floating dock and lifting systems.

Quality Control

Ensuring the highest standards throughout manufacturing and installation.

After-Sales Service

Providing long-term support, servicing, and system upgrades.

Key Resources



Human

Naval engineers, founders, advisors, main investor and sales team with industry contacts.

Technological

European patent, Digital Twin software, functional prototype.

Financial

EU grants (Horizon Europe), venture capita, Business Angels

Value Propositions



"New ship-lifting solution environment friendly, cost reducing, operational optimization for your shipyard"

Problems Solved:

- **1.** <u>High Costs:</u> 30% lower CAPEX & 50% lower OPEX/maintenance.
- **2.** Sustainability: 78% fewer CO₂ emissions, no marine grease, zero material waste.
- **3.** Operational Efficiency: No lifting capacity limits, simultaneous boat repairs, simplified mechanism.

Solution:

Patented ship-lifting system with Digital Twin and reduced-scale prototype. Aligns with SDGs 9 (Innovation), 12 (Responsible Production), and 13 (Climate Action).

Competition:

Outdated technologies (e.g., syncrolifts, traditional dry docks)

Customer Relationships <u>Post-Sale Model:</u>



- <u>Upselling:</u> Software upgrades, premium analytics.
- <u>Customer Success</u>: End-toend support (design → operation → training).

Channels



How to Reach Customers:

- **1.** <u>Industry Events:</u> Barcelona International Boat Show, shipyard association conferences..
- **2.** <u>Digital:</u> LinkedIn, technical webinars, targeted social media
- **3.** <u>Strategic Partnerships:</u> Ship classification societies (e.g., DNV, Lloyd's Register) for validation.

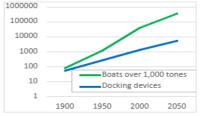
Customer Segments



2. Superyacht Marinas – needing advanced lifting solutions for large yachts.

3. Port Authorities – seeking efficient docking and maintenance infrastructure.

4. Naval Bases – for military vessel support and maintenance.



The comparison between supply and demand growth reveals the gap, which we aim to close by aligning supply with the growing demand



Cost Structure



- **2. Variable:** Project-specific, materials, outsourced for specialized services, energy consumption per project
- **3. Critical now:** €3M for hardware/software development distributed in the next 3 years

Revenue Streams



2. Services:



ii. Annual maintenance contracts

ii. Data analytics subscriptions





Five-year Business Plan for Whale Dock project

A EXECUTIVE SUMMARY

A.1 Description of the innovative component

Whale Dock introduces an innovative, sustainable, cost-effective and operational optimization shiplifting platform based on Archimedes' Principle, stabilizing the vessel to be lifted by means of AI software to control the whole operation and Machine learning to obtain cost reduction from clients and adaptability to the existing and future vessels.

Unlike traditional systems such as Syncrolift, Dry Docks, or Floating Docks, Whale Dock minimizes energy consumption and maintenance costs while providing a scalable solution adaptable to different ship sizes and being able to differentiate from existing products in the heavy ship-lifting. The project is set to revolutionize the ship maintenance industry.

Our road map follows a organically phased approach: starting with a 20LT prototype, scaling up to 250LT for commercialization, and ultimately engaging bigger shipyards with pre-sales agreement for the development of a fully commercial 3,000LT platform, and continuing with platforms with higher lifting capacity.

A.2 Total Economic Investment Required

The total budget required to execute the Whale Dock TRL7 prototype development is 557,250 € covering research, design, materials, prototyping, commercial action and testing. Of this amount, 497,250 € is directly allocated to the development of the innovative technological component related to AI driven automation, structural optimization, and sustainable energy integration, which are the direct costs of: salaries, Patents research, materials for the system operation, software development, and engineering services.

Once TRL7 is achieved, we will have a pre-sales agreement for a Whale Dock platform between 200LT and 700LT, which will be the first commercialized WD ship-lifting platform. The investment required at this stage will be Research and Development for the:

- 1. new Software, which will include a Digital Twin for stabilization, and for predictive maintenance, it will control the deformations of the materials in real time while stabilizing the platform with a Machine Learning AI Software control. The Digital Twin and new Software costs around 750,000 €;
- 2. new design of the structure, and the guiding system adapted to the new range of loads that the new platform will lift. This will cost around 300,000 €;
- 3. the protection of Intellectual Property for the new patentable software, designs, optimal processing and the utility models for the modus operandi, construction and services that the Whale Dock offers. Costing around 150,000 €.

The total economic investment required for the commercialization of the Whale Dock at a competitive range of lifting capacity is approximately 1,697,250 €, including the step of reaching the TRL7, and then the step of reaching TRL10 for the commercialization of the product with the full range of capacities that Whale Dock can offer.

A.3 Technological Verticals:

Whale Dock's innovation falls under the main technological vertical of "Logistics efficiency in the

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infrastructure, operational or service presentation areas". However, under this vertical, the following technological and innovative workstreams are comprised:

- Maritime and Port Technologies (Ship-lifting, port efficiency, and shipyard operations)
- Sustainable Energy and Decarbonization (Reduction of energy consumption and CO₂ emissions in Port areas)
- Artificial Intelligence and Automation (AI-based load distribution, predictive maintenance)
- Smart Infrastructure and Digitalization (Real-time monitoring and Digital twin technology)

A.4 Five-year IRR associated with the project:

In the base scenario, if we receive the pre-commercial subsidy we are requesting, the project will show an Internal Rate of Return (IRR) of 39%, reflecting an extraordinary return on investment, as part of the development costs would be covered by the grant.

On the other hand, if we do not receive the subsidy, we would bear all the costs associated with taking the project from a TRL3 to TRL7. If the project succeeds, the IRR would be around 20%.

B CONTENT

B.1 Purpose of the Company

Whale Dock offers shipyards a cost-reduced, more sustainable, and operational optimized ship-lifting system that improve the current dry-docking vessel systems.

B.2 Problem

Current ship-lifting systems such as Syncrolift, Dry Docks, and Floating Docks present challenges related to high initial investments, high operational costs, mechanical wear, and high energy consumption and some are limited to a certain lifting capacity.

In new and existing port facilities, where expansion for repairing boats is required, it is usually very difficult to decide between each of the existing technologies, and a decision based on discarding is often taken:

Dry dock is the most expensive and requires a ground surface that not all shipyards or port areas have. Furthermore, it can only take one boat operation at once.

Syncrolift has a limitation on the lifting capacity, and in a continuous size-growing sector, offers limited scalability. Very expensive system, non-linear cable comportment.

Floating Dock also requires a big initial investment and even though it has no capacity limitation, operationally, leaves much to be desired, since only one repair can be performed at once.

Furthermore, looking into the market demand for repairing vessels, a rise in shipyard waiting times is becoming a major problem, with an increase of 12 times more than 2010. That is due to three main reasons:

- 1. More boats being built than repair devices being built
- 2. Larger boats being built requiring specialized equipment
- 3. Combination of growing fleet and larger sizes for boats

In addition, there has been an increase in Sustainability regulations (50+) in maritime industry in the last 20 years, which forces governments and port sectors to align with the following verticals:

- 1. Energy efficiency and carbon footprint reduction
- 2. Zero-discharge policies in shipyards and harbors
- 3. Shipyard pollution prevention regulations and control of processes

Above all the beforehand mentioned, there has not been any significant innovation or game changer in



the ship-lifting industry, and the waiting list of the vessels for being attended by the shipyards has increased by 12x since the last years.

B.3 Solution

The solution for our clients, on decision making of which technology they suit them best to provide the work they need to do, will come with the product of Whale Dock.

Whale Dock tackles all the problems that other technologies suffer from and offers their clients the most versatile product in the market, not just solving the limitations from each technology but also providing a more cost-effective, and environmentally friendly, and operational optimized alternative in terms of ship docking and ship-lifting.

Therefore, it is considered that Whale Dock will have its place in the market and its scalability will eventually surpass the competitors.

Product

We will offer a single docking platform, dimensioned according to the needs of the client, with no lifting capacity limit, having maximum adaptability to space (being able to be collocated on the water transversal to the dock or longitudinal), with less energy consumption and an inferior CAPEX and OPEX compared to other technologies.

This adaptability and scalability are shown with the different possible layout installations:

<u>Transversal Installation</u>: the inclination will be given longitudinally to transfer the boat onto the dock. This method will help companies with small docking/berth lengths, and have the permits to occupy the water surface towards the sea. IN addition, this system will offer more stability to the transfer ashore of the boat, since the longitudinal inclination is more stable.

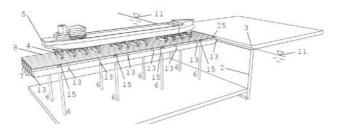


Figure 1: Transversal installation

<u>Longitudinal Installation:</u> the inclination will be given transversally to transfer the boat onto the dock. This method will help companies with bigger docking/berth lengths. This layout will ease the port permits to occupy the water surface attached to the dock, generating more space for 3rd parties' transit beneath the platform.



Figure 2: Longitudinal installation



<u>Centered Installation</u>: The platform will be installed in between docks, which will give three possibilities to transfer the boat ashore, either transversally on each side or longitudinal. This method, even though it will be more expensive due to dock retrofits, will give maneuverability to the company and docking layout optimization, which will help the company to increase capacity of repair.

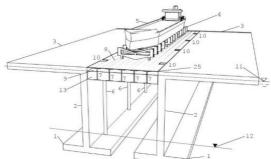


Figure 3: Centered installation

Target tonnage

Whale Dock (WD) is designed to revolutionize the ship-lifting industry, with its greatest impact expected in vessels exceeding 3,000 LT. This segment represents the most significant opportunity for efficiency gains and cost savings, aligning with our core value proposition.

However, WD is not exclusively targeting large tonnage markets. The strategy includes a phased market entry, beginning with smaller-scale applications. This approach involves:

- Engaging with mid-size shipyards and marinas that handle vessels around 10,000 LT, particularly those focused on maintenance and refit operations.
- Collaborating with emerging shipyards and dry dock facilities looking for flexible, scalable lifting solutions.
- Developing customized solutions for marinas and smaller commercial shipyards, ensuring that WD technology is adaptable to varying operational needs.

By progressively integrating into the lighter tonnage market, WD will establish credibility, refine its product offering, and ultimately scale towards larger installations. This strategy ensures market penetration at multiple levels, reinforcing WD's viability across a broad spectrum of ship-lifting applications.

B.4 Momentum

Up until today, we can say that there are only 3 possibilities for docking a heavy vessel worldwide. These are Dry Dock, Floating Dock and Syncrolift. These numbers already give a substantial meaning to the limitation of inventing a system to accomplish this hard and highly difficult task.

In order to have a reference timeline of the inventions, the latest invention was Syncrolift, patented in 1950 by Raymond Pearlson.

However, the modern Floating Dock was patented in 1800s in England. To go even further, the modern Dry Dock concept evolved in the 17th century, even though the invention existed in 14th century.

We can observe that the gap between each invention is around 100 years from each one. This fact is a clear signal of the difficulty of entering this business and differentiate from other technologies.

Several factors have contributed to the delay in developing a buoyancy-based ship lifting system like Whale Dock:

- Technological Limitations: Until recently, Al-driven automation and real-time load distribution monitoring were not advanced enough to ensure safe and efficient operations.
- Industry Inertia: The maritime sector is traditionally slow to adopt new

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infrastructure technologies due to the high capital investment required and reliance on established solutions.

- **Lack of Regulatory Incentives**: Regulations have historically favored mechanical and dry-dock solutions, delaying investment in alternative systems.
- Market coverage until now: Until now, the necessary technologies were already
 invented to commit the purpose of lifting ships, giving less motivation for inspiration
 and new inventions. However, this is changing due to the size increase of the vessels.

Due to this lack of innovation, the naval industry faces several problems, explained in Chapter 2. Problem. This creates a significant opportunity for Whale Dock to disrupt the market, establish itself as a pioneering solution, and become a new industry benchmark.

Another difficulty of this project is the heavy CAPEX investment required. For new technology to be competitive in the market, a heavy CAPEX investment is required. Whereas the risk might be higher than other projects, the potential upstream is also higher, and up until now, there has not been a team willing to build a game changer in the ship-lifting industry.

One well recognized shipyard in Spain, told us that they thought about installing air compartments under the Syncrolift. The problem with that, and the reason why they didn't go ahead, as far as they told, was because the Syncrolift Installing Company would stop giving them the warranty, and the Syncrolift is their bottleneck, so at that time they wouldn't take that risk.

Whale Dock is uniquely positioned to overcome the historical barriers that have hindered innovation in ship-lifting technology. Unlike previous attempts, our team integrates cutting-edge advancements in Aldriven automation, real-time buoyancy control, and structural engineering to ensure safe and efficient operations.

Additionally, we have developed a financially viable implementation strategy that minimizes investment risks while maximizing long-term benefits. With a deep understanding of the maritime sector's operational challenges and a clear vision for regulatory adaptation, we are not just introducing a new solution, we are redefining the future of ship lifting.

Market analysis

Nowadays, the number of lifting systems worldwide is quite extensive, as shown in this document, with Syncrolifts as an example. However, the global fleet is continuously expanding, both in number and in vessel size. This growth is driven by increasing globalization and economic demands, which require greater vessel transportation capacity year after year, and many shipyards lack the infrastructure to keep up with the continuous advance.

In the following *Figure*, it can be seen that the market is increasing on Docking solutions, and therefore, a rise of new technology has it's gap in the market. Even more, the differentiation of Whale Dock from the other technologies, especially on cost savings and on operating versatility, will ensure a solid business model.

The rising industry numbers are favorable, but the technology improvements will consolidate Whale Dock as a first option for many clients.





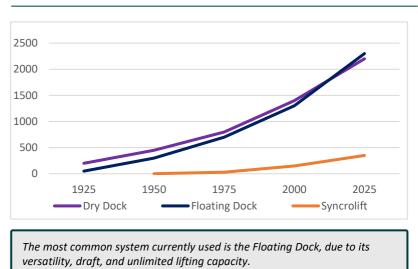


Figure 4: Increase in number of Docking Systems

The most common system currently used are the Floating Dock, due to its versatility, draft, and unlimited lifting capacity. However, dry docking systems have grown 540% in the last 75 years since Syncrolift's invention, while vessels increased by 6,300%, causing a 12x rise in shipyard waiting times. The market trend and forecast of produced vessels is continuing to grow year after year. The following *Figure* shows the possibilities for new clients:

Number of Boats over 1,000 Tones

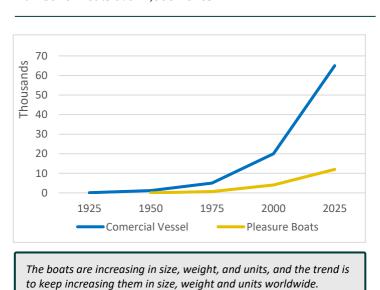


Figure 5: Number of boats over 1,000 tones: boat manufacture is increasing However, it is already known that the capacity limit of building ships is the actual capacity limit of the existing docking systems. This means that there is no possibility that a ship is bigger than the biggest existing docking system, worldwide.

This gives another opportunity to the Whale Dock, which can give the extra mile on the sector to impulse bigger vessel capacities.



Gap Between Supply & Demand

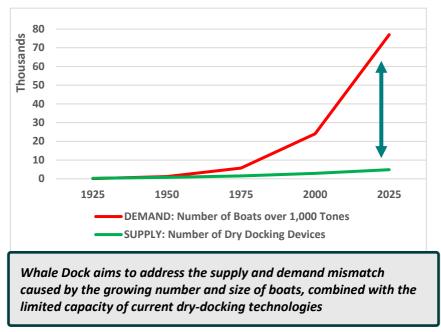


Figure 6: Dry-docking systems have grown 540% in the last 75 years since Syncrolift's invention, while vessels increased by 6,300%, causing a 12x rise in shipyard waiting times

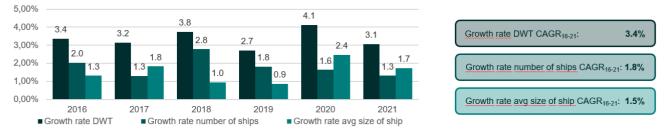


Figure 7: Shipping growth rate

B.5 Potential Market

The solution targets clients that need to build a new infrastructure to dock vessels. Many shipyards are being built and are being expanded, so Whale Dock enters as an alternative for the existing market.

As company, we do not contemplate the changing from an owned docking system to a Whale Dock, for a client. This applies to any technological change, since there is a huge investment behind, dock retrofits made according to each methodology, and the decommissioning itself of the present system would be highly costly. That creates an enormous barrier for change and obtain profitability.

However, a company that has space in the dock and is looking to expand docking capacity, will see a big ally on Whale Dock, since it is versatile on the implementation and cost effective.

Regarding capacity segmentation, while Whale Dock initially focused on shipyards dedicated to ship construction, maintenance, and repair of vessels over 500 Tn, the model has been expanded to include additional market segments. In the following list, we can see our target and possible clients, as per the following table:

Mid-sized shipyards (500-5000 Tn capacity) looking for cost-effective and flexible lifting



solutions.

- Marinas and smaller ports that lack infrastructure for efficient ship lifting.
- Military and governmental shipyards require sustainable alternatives for vessel maintenance.
- Emerging shipbuilding hubs in regions with limited access to Syncrolift or dry dock facilities.
- Bigger-sized shipyards (above 3,000 Tn capacity) looking for reparation of multiple boats at the same time.

Potential Clients for Whale Dock ship-lift systems above 3,000 LT

Company	Current Syncrolift	Potential Interest	Key Contacts & Notes	Next Steps
Alimia Shipyards Group (Astican, Astander, Astibal)	Astican: syncrolift of 10,000LT Astander & Astibal: Dry Docks	They know the idea and think it's a good concept. German Suarez (CEO) is open to investment.	Contact with Jose Carlos Alvarez (GM & shareholder) and Juan Luis Sánchez (GM). Strong existing relationships with Astander team.	Try to schedule an online meeting with German. If that is not possible, approach Jose Carlos.
Navantia	Dry dock & Floating Dock, SL of 6,000 LT	Previously explored modifying Syncrolift but faced challenges. As a public company, changes are slow.	Meetings held. They have interest in new solutions but difficult procurement process.	Position them as a strategic partner rather than a direct buyer.
Marina Barcelona 92 (MB92)	SyncroLift of 4,500 LT & 2,000 LT	Expanding with a new shipyard in Dubai/Saudi. Interested in the concept but hesitant to be first buyers.	Strong relationship with Procurement Manager and Dry Dock Manager.	Keep them updated and look for other early adopters before pushing MB92.
ARAMCO	No current Syncrolift	Launched a tender for three new shipyards in Saudi. Could be a high- value client.	No direct meetings yet, but opportunity to engage.	Try to set up a conversation to understand their needs and decision criteria.
Astilleros de Mallorca & STP	No current Syncrolift	Wants to buy a new Syncrolift but waiting for government subsidy (2-3 years).	They want to keep knowing the updates of the Whale Dock company	Ask if they would consider our ship- lift instead of the old Syncrolift.
DAMEN	All resources	High-end vessel builder, potential client.	Interactions but WD team want to present the project in person	We will go to their shipyard in Vlissingen by July 2025

Figure 8: Potential clients and conversation status with them

Additionally, a global analysis of shipyard capacity has revealed a deficit in modernized ship-lifting infrastructure, particularly in regions such as Southeast Asia, South America, and Africa, where new shipbuilding and maintenance facilities are expanding. This strengthens Whale Dock's value proposition as a scalable and adaptable alternative.

<u>B.6 Competition & Alternatives</u> <u>a) Competition Matrix</u>

The main competitors are the companies that provide different docking systems. For each technology, the following competitors have been detected:



Syncrolift	Dry Dock	Floating Dock
 Pearlson Shiplift Corporation (USA): Biggest player in shiplift systems (~70% MS) NEKKAR Syncrolift (Norway): Second biggest player in shiplift systems Rolls-Royce (Germany): Specialized in ship-lift engines MacGregor (Finland): Supplier of key ship-lift components Cimolai Technologies Cimolift (Italy): Builds heavy-duty travelift systems 	Royal BAM Group (Netherlands): Maritime civil engineering &	 China State Shipbuilding Corporation (CSSC): Largest floating dock producer Hyundai Heavy Industries (South Korea): High- capacity, efficient floating docks Daewoo Shipbuilding & Marine Engineering (South Korea): Advanced, automated floating docks

Figure 9: Competition overview

As seen in *Figure 59*, not many competitors exist in the global market. This reflects again the difficulty of market entry, but at the same time, the huge potential for Whale Dock and the reduced offer of docking systems worldwide.

For each category, Whale dock will find its market entry as explained in the table below:

Main Advantages over competitors					
Syncrolift	Dry Dock	Floating Dock			
 Whale Dock will be able to lift heavy vessels without lifting capacity limit For the same sizes competition, (from 3.000 LTn to 25.000 LTn), WD will be 20% cheaper (CAPEX). 	 Whale Dock will have the possibility to work on multiple boats at the same time, giving operation versatility to shipyards 	Whale Dock will have the possibility to work on multiple boats at the same time, giving operation versatility to shipyards			

Figure 10: Main advantages of Whale Dock over Competition Matrix

b) Market Attraction Matrix

Whale Dock outperforms competitors in almost all the characteristics to be values in the market, such as investment costs, scalability, and sustainability, making it the most attractive solution for ports and shipyards.

In the following Figure, a Market Attraction matrix is shown:



	Dry dock	Floating dock	Syncrolift	Whale Dock
Versatility				
Scalability				
Capex				
Opex				
Maintenance				
Capacity				
Eco-friendly				
Durability				
Sustainability				
Energy Efficiency				

Best	Medium	Worst
------	--------	-------

Figure 11: Market Attraction Matrix

c) Industry Attractiveness Analysis: Porter's Five Forces Analysis

A Porter's Five Forces Analysis has been done, to determine how profitable Whale Dock can be and what markets are the best fit for this particular product. It's a way to gain market insights and analyze the competitive landscape.

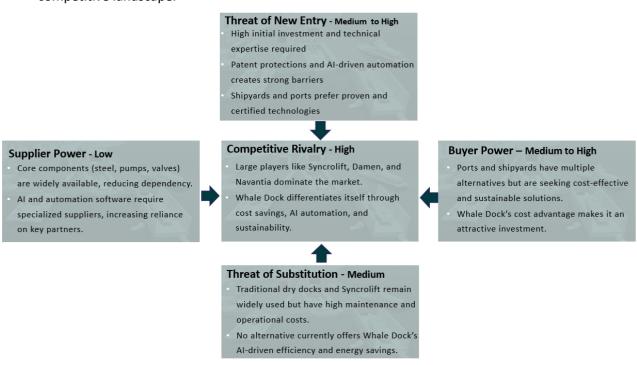


Figure 12: Porter's Five Forces Analysis

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Whale Dock's ability to provide lower costs, higher energy efficiency, and superior automation gives it a strong competitive advantage over traditional alternatives. Its modular scalability and adaptability make it an ideal solution for shipyards and ports looking for a future-proof investment.

The hardest point to overcome will be the Threat of new entry and the Market Rivalry, being it difficult to entry onto the market due to the high cost of this technologies and the non-existing track record of Whale Dock.

In order to overcome it, we will have to work hard on the certifications and prove, from smaller sizes to bigger sizes of the platform, that our technology is reliable, benchmark and safe, in order for port entities to trust in it. Once this track record is consolidated, Whale Dock will rely on its proven numbers to make its way onto the top sellers on ship lifting.

d) External Factors Influencing Whale Dock

There are several external factors and trends in this industry that we must take into account, and where, as a company, we will have no power over them. Therefore, Whale Dock will have to align to them as much as possible.

Demographic Factors:

The continuous demographic growth of the planet ultimately ends in a growing global maritime trade. Due to the necessity to obtain any product anywhere in the world. This ultimately means a continuous increase in the shipping industry, that right now is already facing difficulties in addressing the repairs of the existing ships.

Therefore, it is crucial to increase the capacity of the docking systems and obtain the most efficient shippard solutions.

In addition to that, the expansion of emerging markets, such as Africa, require the expansion of port infrastructure projects.

Economic Factors:

The rising fuel price and operational costs push shipping companies to seek cost-effective solutions when repairing their boats. Therefore, if shippards have a more cost-effective technology, they will be able to quote lower prices to their clients and increase the sales.

Furthermore, government funding and subsidies for sustainable maritime technologies are a reality and Whale Dock is taking advantage of it, starting from *Programa IDEA*, using it to develop its TRL3 PoC, and now working on building the next WD commercial product, and being able to brake the barrier entry.

Political Factors:

There are several European and International maritime regulations encouraging greener technologies. Whale Dock is aligned with them, and it can be used as a path to follow.

In addition, political stability and government incentives influencing investment in port infrastructure allows Whale Dock to develop.

Environmental and Sociocultural Factors:

There is a global push towards decarbonization and emissions reduction in the maritime industry. Whale dock's elimination of greases thrown into the sea are a differential point compared to other systems, which port authorities will appreciate.

On the long term, rising sea levels and climate change affecting port infrastructure planning will become a reality, and many existing technologies in certain areas of the world will have to change and adapt,

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giving space to Whale dock on many sites.

Increased awareness of sustainable business practices, driving preference for eco-friendly solutions will also be a favorable point towards decision-making on Whale Dock.

Technological Factors:

Advancements in AI and digital twins enhancing automation in ship-lifting operations give credibility to the project and unable increased adoption of predictive maintenance, reducing downtime and costs and reducing operations timings.

Infrastructure Factors:

There is no doubt that there will be need for modernized port infrastructure to accommodate larger vessels in the mid-term. That is why scalability is super important and being able to lift the biggest boats of the globe will be a crucial point in favor of Whale Dock.

B.7 Business Model

<u>Product Sale and Construction of the Platform</u>

Whale Dock SL will sell the WD as a product, in which the engineering, software, part of the construction and commissioning will be included.

Whale Dock's business model will follow a hybrid supply and assembly approach, similar to *Syncrolift*, but adapted to our modular buoyancy-based technology. The cost distribution and responsibilities for the product purchase will be structured as follows:

- 1. **Site studies**: Prior to any work, and the manufacturing of the product, Whale Dock will perform the sea-bed site tests (geotechnical and topography), which will be quoted previously and independently to the Project execution. These tests are fundamental to validate the bed ground characteristics to dimension the WD foundations and validate the feasibility of the site.
- 2. **Site tests**: During the Engineering phase, in order to dimension the foundations and the foundation piles, Whale Dock will perform maritime piles test, in which dynamic tests will be performed to the manufactures piles in order to determine that the design withstands the loads. These tests will be iterative and will be quoted previously and independently to the platform construction.
- 3. **Processing and management of licenses:** Alongside the site testing, necessary project management on the developing phase for the implementation of the new infrastructure will be necessary, such as port licenses, working licenses, environmental licenses, etc, depending on the country.
 - This management, will be optional for the clients to include it on the scope of works of Whale Dock, or be responsible for it.
- 4. **Project Design and Engineering**: The shipyard purchases the executive engineering and project design directly from Whale Dock, which includes specifications for installation.
- 5. **Software and Digital Control System:** The shipyard must purchase the proprietary Whale Dock Software Suite, which will include:
 - Automated load distribution and buoyancy control algorithms.
 - Predictive maintenance AI for system health monitoring.
 - Digital Twin technology for real-time operational simulations and adjustments.
 - Machine learning and R&D to improve timing of operations, safety, and



reduce structural stress on the liftings.

- 6. **Port Infrastructure Contribution:** The port authority covers the cost of civil maritime works, such as seabed cleaning and clearance, dredging works, sea-bed foundation construction and foundation piles installation and site preparation. The port agents will also manage the waste collected from the seabed.
 - Ports are interested in these investments because enhancing ship-lifting capacity increases port efficiency, attracts more ship repair and maintenance operations, and generates economic activity. Having a state of the art, energy-efficient lifting system aligns sustainability goals and strengthens the port's competitiveness in the global maritime industry. Therefore, it is common practice in this industry that Ports help the clients in this phase.
- 7. **Core Components Supplied by Whale Dock**: Once the engineering phase is completed, the shipyard will procure the following key components directly from Whale Dock:
 - Foundation piles
 - All the components in the pumping system, including but not limited to: Reversible pumps, solenoid valves, tubes and electronics.
 - Pre-cut steel sheets for the structural framework, according to the design, and interconnected with the pumping system.
 - Guidance and mounting system, which includes but not limited to the rails, railing subjection to the dock and foundations, interlocking systems with dock, ship positions
- 8. **Procurement of Standard Components:** Once the engineering is completed, the shipyard has the possibility to purchase the most standardized materials externally, following Whale Dock's detailed engineering specifications. This will provide flexibility and cost reduction for our clients, being able to purchase standard equipment to local providers:
 - Rail tracks for vessel movement
 - Transfer car for ship positioning
 - Wood planks, bolts, and general systems
- 9. Installation and Assembly: As a regular praxis in this sector, the construction and assembly of the platform will be carried out partially by Whale Dock and partially by the client, which will have the possibility to contract local companies and make the construction more economical. These companies can create a temporary joint venture to undertake the work. These works will include, but not limited:
 - Construction and installation of the lifting platform by Client, under the technical assistance of Whale Dock (including rails, deck, provisional beams, and final support beams).
 - The construction and installation of the transfer car to be carried out by Client, under the technical assistance of Whale Dock (including rails and wooden deck).
 - Construction and installation of transition rails between the lifting platform and the bridge, as well as the slab, by Client.
 - Design and construction of the land-based ship transfer system to be carried out entirely by Client.
 - Construction of the steel structures for the water tanks and pumping systems (both supplied by Whale Dock) and assembly of these components by Client.
 - Construction of the cradles to be carried out by Client.
 - Supply and installation of the electrical power system to be carried out by



- Client, according to Whale Dock's electrical engineering project.
- Assembly of the different elements to be carried out by Client.
- Assembly of the Pumping system Control Center to be carried out by Whale Dock.
- 10. **Certification:** All civil and mechanical works will be carried out under a TIER 1 Classification society registry, meaning that quality control and assurance plans must adhere to these standards. Additionally, inspectors must be contracted by the client to perform verification tests on the lifting platform and the buoyancy system.
- 11. Works Direction (*Dirección Facultativa*): To achieve the planned objectives and within the global framework of the project, the client will subcontract the Works Direction to carry out the overall project management tasks:
 - Planning, monitoring, and management of the project schedule.
 - Coordination of the different phases and works, both those to be carried out by the client and those executed by Whale Dock.
 - Risk management for the project.
 - Supervision and management of the project and civil works associated with the Whale Dock.

This model ensures a cost-effective, scalable, and locally adaptable solution while maintaining core technology ownership with Whale Dock.

Operation and Maintenance

Once the Whale Dock is installed, it will offer a guarantee over 2 operational years, after its commissioning, that will include maintenance and repairs for the key components supplied by Whale Dock, which include:

12. **Software and Pumping System Maintenance:** Managed directly by Whale Dock, ensuring continuous updates, remote monitoring, and predictive maintenance.

The operation and maintenance of the systems included in this scope of works will include performance guarantee clauses that will have to be fulfilled by Whale Dock, giving confidence to clients on the investment and ensuring its feasibility. These Performance Guarantees can be linked to certain KPI's, such as:

- Availability: To guarantee availability of x days/year
- o Nº operations: To guarantee a certain number of operations/year
- Timming on operations: To monitor a ratio of time/(operation*tonnage)
- 13. Civil Works and Mechanical Transfer System Maintenance: Handled by specialized local companies, which already did the installation of the systems, reducing logistical costs and providing fast response times for repairs. This maintenance distribution will give flexibility to Whale Dock on the responsibilities of the whole project.

Once the warranty period expires, the clients will be able to contract an O&M service to Whale Dock, aiming at the same activities necessary for the operation of the Whale Dock, and that will give Whale Dock a recurrent and increasing income as the client portfolio increases.



B.8 Team

The human and social resources available to the company are detailed in *Chapter 9*, and summarized as follows:

FOUNDING TEAM



CEO Sergi Rivera Morcillo M.Sc. in Naval Engineering Shipyard management MBA at IESE 2025



CTO
Joan Xavier Gràcia
M.Sc. in Mechatronic Engineering
Expert in programming controllers
and simulations of dynamic systems



Jaume Boldú Sardans M.Sc. in Naval Engineering Management of international EPC projects in renewable energy



CBO
Rafael Aznar Alonso
M.Sc. In Civil Engineering
Senior Executive & Board
EMBA at IESE 2016



Investor
Juan Vera
Former COO of CEPSA Group
Strategy and M&A Director
DBA at IE & MBA at IESE

ADVISORS



José Rivera Hernández Senior Civil Engineer General Manager at IDOM Barcelona & LATAM EMBA IESE Business School



Mathieu Carenzo Business Advisor Investor & IESE Prof. Advisor to the CEO & Boar Start-up business mentor



Albert Fernández Business Advisor FINAVES Director & IESE Prof. Advisor to the CEO & Board Start-up business mentor



Pablo Serra Legal Advisor Partnership agreements Joint ventures, M&A MBA IESE Business School



William Pegram Senior Naval Engineer Founder ISONAVAL Architects Technical project & feasibility Maritim structural calculations



Rafael Pou Feliu Senior Civil Engineer Structural manager at SENER Maritim structural feasibility Advisor of maritim works



PROGRAMA EMPRENDEDOR NAVAL 2025 Candidatura de Whale Dock

Índice de documentos presentados

Documentación mínima

- 1. Lienzo Canvas de modelo de negocio (1 página)
- 2. Resumen ejecutivo, incluyendo la descripción del modelo de negocio y los avances durante el programa (2 páginas)
- 3. Vídeo de presentación del proyecto o "Elevator pitch" (vídeo de 3 minutos) EN25 Whale Dock Pitch

Documentación adicional

- 4. Business Model en detalle (15 páginas)
- 5. Proyecciones financieras: 1. P&L; 2. Investment Plan; 3. Cash Flow Mensual; 4. Cash Flow Annual; 5. Balance Sheet; 6. First WD3000LT; 7. Budget for WD20LT (7 pestañas en Excel)
- 6. Estrategia de protección de la Propiedad Intelectual mediante Patente (4 páginas)
- 7. Plan de desarrollo de equipo futuro (7 páginas)
- 8. Investment Deck (24 páginas)
- 9. Avances durante el programa EN25 (9 páginas): se destaca la redacción y firma del Pacto de Socios, el desarrollo del Software de control y la construcción de un prototipo de metacrilato a escala reducida, y la primera inversión de 100k€, junto con la presentación del proyecto al Salón Náutico de Barcelona

Trailer para la invitación al Salón Náutico: https://youtu.be/dfNqixQClaM

Explicación del Sofwtare: https://youtu.be/nL3g7CIDdHM
Pruebas con el prototipo: https://youtu.be/YQBo4OKrIII

Todos los logros de Whale Dock han sido posibles gracias al trabajo del equipo y a la orientación de los mentores, SECOT y COIN. El esfuerzo realizado en documentos, hojas de cálculo, archivos Word y revisiones ha incrementado significativamente nuestra credibilidad a la hora de formar el equipo, construir el prototipo y relacionarnos con inversores.

Ahora estamos empezando a hablar con posibles clientes de manera más seria, e incluso ya se están abordando cuestiones de preventa. El interés del mercado es fuerte y estamos listos para aprovechar esta oportunidad y dar el siguiente gran paso.



TEAM

Co-founders:

1. Sergi Rivera Morcillo

- COIN nº 3390
- Master of Naval and Offshore Engineering, UPC
- MBA 2025 IESE Business School
- 5+ years' experience in Shipyards

Role definition in Whale Dock project:

- Co-founder & CEO & Member Board of Directors of Whale Dock SL.
- Full-Time since March 2026
- Inventor of Whale Dock technology and owner of European patent and IP.
- Main contact with UPC, COIN, IESE, Port de Barcelona, suppliers and shipyards.
- Contract Negotiation.

Sergi Rivera will contribute as a key element in finding partnerships, investors and potential clients. With his vision and expertise in Business, his actions and decisions will lead WD roadmap.

2. Rafael Aznar Alonso

- Master in Civil Engineer. Ingenieria Portuaria, UPV
- Executive MBA 2016 IESE Business School
- Port Value: Founder & Managing Partner
- 10+ years' experience in Managing Positions across Port industry

Role definition in Whale Dock project:

- Co-founder & Member Board of Directors of Whale Dock SL
- Advisor in Managerial Decisions
- Contribution of contacts, network in the naval industry.
- Commercial Agent

Rafael Aznar will contribute with his expertise in the Port industry, his advisory will ultimately define strategical decisions related to commercial and business development of Whale Dock.

3. Jaume Boldú Sardans

- COIN nº 3407
- Master of Naval and Offshore Engineering, UPC
- 7+ years if experience in Naval and Renewable Energies
- Managing large-scale projects for several years.

Role definition in Whale Dock project:

- Co-founder & COO & Member Board of Directors of Whale Dock
- Full-Time since March 2027
- Advisor in Managerial Decisions
- Project Manager and Operations
- **Contract Negotiations**

Jaume Boldú will contribute with his expertise in PM, his mindset will ultimately define strategical decisions related to operations and the construction of Whale Dock.







4. Xavier Gràcia

- COGITN nº 2205
- Master in Mechatronics Engineering, UPV & Naval Engineering, UPC
- Certified LabVIEW Associate Developer
- Head of the Electrical Department of the Barcelona Nautical Institute

Role definition in Whale Dock project:

- Co-founder & CTO & Member Board of Directors of Whale Dock SL
- Full-Time since March 2026
- Advisor in Managerial Decisions
- Technical and Engineering Leader
- Software Development Leader

Xavier Gràcia will contribute with his knowledge in IT, electronics and technological aspects of the Patent and Whale Dock software, will lead the engineering and software development.

5. Juan Vera

- Former COO of MOEVE Group
- MBA at IESE
- Certified LabVIEW Associate Developer
- Head of the Electrical Department of the Barcelona Nautical Institute

Role definition in Whale Dock project:

- Co-founder & Member Board of Directors of Whale Dock SL
- Investor Anchor, Business Angel
- Advisor in Managerial Decisions
- Definition and implementation of corporate strategy

Juan Vera brings to Whale Dock his international experience in leading large-scale projects, with strong negotiation skills and corporate vision to drive the project's growth and consolidation.

Advisors



1. José Rivera Hernández

- Senior Civil Engineer
- General Manager at IDOM Barcelona & LATAM
- **EMBA IESE Business** School

Albert-Fernandez-CV-2019-ENG.pdf



2. Mathieu Carenzo

- WD Start-up business mentor
- MBA 2006 IESE Business School
- **Harvard Business School**

Executive

Mathieu Carenzo | LinkedIn





4. William Pegram

- WD Techincal Advisor
- COIN nº 2353
- Founder & General Manager of ISONAVAL,

Naval Architects







5. Rafael Pou Feliu

- WD Operations Advisor
- General Manager at UP de Ingeniería y Arquitectura
- CEO at Synthesis Architecture & Value

Engineering (2023 - present)



6. Pablo Serra

- •WD Lawyer: Abogado | Mercantil, M&A y Societario
- •EMBA IESE 2017 Business School
- PARS Abogados · Arregui | Rifá | Serra

	Year n-1:	Year n:	Year n+1:	Year n+2:	Year n+3:
Team Cost Analysis	2026	2027	2028	2029	2030
	WD 20 LT	WD 250 LT	WD 3,000 LT	WD 5,000 LT	WD 8,000 LT
General Managing: Oversees one	or several depart	ments of a comp	any. The CEO is t	he highest-rankin	g official and
the leader of a company, and in thi	s case, main sha	reholder			
Cost (€)	45,000€	60,000€	75,000€	90,000€	100,000€
No. of people	1	1	1	1	1
Commercial: Sergi and Rafael hav	-		_	inning. Increasing	g focus for
customer acquisition and expansion	on will be put fror			T	T
Cost (€)	-	50,000€	60,000€	100,000€	110,000€
No. of people	-	1	1	2	2
Marketing: Investment in marketin and integration a marketing lead la		I positioning. Gra	dual increase in v	visibility strategie	s via advisors
Cost (€)	-	-	40,000€	75,000€	90,000€
No. of people	-	-	1	2	2
Operations: Management of produ	iction, logistics, a	and suppliers for	construction. Gro	owing investment	as TRL9 is
achieved in new team members.		ı	1	1	1
Cost (€)	1	60,000€	105,000€	180,000€	225,000€
No. of people	-	1	2	4	5
Engineering & Development: Software, hardware, and structural design development. Expansion of the technical team to optimize the product by hiring key engineers and developers after reaching TRL7.					
Cost (€)	45,000 €	60,000 €	165,000 €	250,000€	300,000€
` '	45,000 €		165,000 € 4	† 	<u> </u>
No. of people	-	1		6	7
Administration & Finance: Administrative support and financial planning through advisors in the early stage, and					
expansion to a management position as CFO when consolidating Commercial product.					
Cost (€)	-	-	30,000€	40,000€	75,000€
No. of people	-	-	1	1	2
Personnel	2	4	10	16	19
Total Cost	90,000€	230,000€	475,000€	735,000 €	900,000€

Figure 1: Team Cost Analysis



Core Team and Their Necessity

The Whale Dock project requires a well-structured team with key roles to ensure its success. Each position has been carefully defined to address technical, operational, and business needs.

- CEO / Business Development Lead: Responsible for strategic direction, securing investments, and developing commercial relationships with key stakeholders, including shipyards, marinas, and port authorities.
- CTO / Engineering Lead: Ensures technological feasibility, oversees the development and implementation of the Whale Dock system, and guarantees compliance with maritime engineering standards.
- **COO / Operations Manager**: Manages the operational execution, including manufacturing, logistics, and supply chain management, ensuring efficiency and scalability.
- **CFO / Financial Officer**: Oversees budgeting, cost control, and financial forecasting, ensuring the company remains financially sustainable as it scales.
- **Project Manager**: Coordinates internal and external resources, tracking milestones, and ensuring the project adheres to its timelines and deliverables.
- **R&D / Technical Specialists**: Focus on improving the Whale Dock's efficiency, reliability, and cost-effectiveness through continuous innovation.

Evolution of the Team Over Time

The team composition will evolve in phases, with early hires focusing on core product development and later expanding as the company grows.

- Phase 1 (Prototype & Validation 0-12 months):
 - Small core team with CEO, CTO, and R&D engineers.
 - o External advisors to cover gaps in expertise and accelerate product validation.
- Phase 2 (Market Entry 12-24 months):
 - o Hiring of a COO and Project Manager to ensure smooth operational execution.
 - o Expansion of the R&D team for refinements based on real-world testing.
 - Hiring of a CFO to ensure financial operations and cost efficiency
- Phase 3 (Growth & Scaling 24+ months):
 - Expansion into full-fledged departments for operations, sales, and financial management.
 - Reduced reliance on external advisors as in-house expertise solidifies.

Role of Advisors and Their Transition

Advisors play a crucial role in the early stages by providing industry expertise, regulatory guidance, and strategic networking. However, their involvement will be phased out as internal expertise grows.

- **Technical Advisors**: Provide insights into mechanical and maritime engineering challenges, helping to refine the design and ensure feasibility.
- **Financial & Investment Advisors**: Assist in structuring funding rounds, securing grants, and financial planning.
- **Regulatory & Compliance Advisors**: Ensure the Whale Dock meets international maritime and environmental regulations.
- Industry Mentors & Business Advisors: Guide commercial strategies and facilitate key business introductions.



Intellectual and Industrial Property Management Plan

The management of intellectual and industrial property in this project is a critical pillar of its success. Whale Dock represents a high-value innovation with global market potential, requiring strong intellectual property (IP) protection at every stage.

To protect Whale Dock's innovative ship-lifting technology, we have evaluated five different intellectual property protection mechanisms and selected the most suitable approach. Below is an overview of each option, including our chosen strategy for securing our competitive advantage in global markets.

1. Professional/Trade Secret:

A trade secret involves keeping proprietary information confidential to prevent competitors from replicating the technology. However, this approach is not suitable for Whale Dock since reverse engineering could easily reveal the system's core design and functionality. Given the mechanical nature of our platform, competitors could analyze and replicate our technology without needing direct access to internal documentation.

2. Public Disclosure:

Publicly disclosing the technical details of the invention would make it freely available, eliminating any possibility of obtaining patents or exclusive rights. While publication can sometimes be useful to establish prior art and prevent others from patenting similar concepts, in this case, it would result in losing our intellectual property rights. For this reason, public disclosure is not an option.

3. Utility Model (10 Years) – Complementary to Patents

A utility model offers protection for smaller, incremental innovations related to the core invention, such as software algorithms, manufacturing processes, assembly techniques, or system improvements. Since software evolves rapidly, it is commonly protected under a utility model rather than a full patent.

In our case, once the Whale Dock Al-powered software is integrated into a physical chip or control unit for our clients to use it, then it will be patented. However, while the software remains under active development, we will use utility models to protect its key functionalities and improvements.

4. Copyright – Protection for Documentation & Media

Every time Whale Dock produces technical documentation, conference materials, graphic elements, or audiovisual content, we will secure copyright protection. This will apply to:

- Technical documents & reports
- Conference presentations
- Marketing materials & visuals
- Promotional videos & animations

By enforcing copyright, we ensure that our brand identity, research, and media assets remain exclusive and cannot be used without permission.

5. Patent (20 Years) – Main Protection Strategy



Patents offer the strongest and most long-term protection by granting exclusive rights for 20 years. Our strategy involves creating a patent fortress, meaning that every time we develop a new invention, technology, or patentable improvement, we will file for a new patent in the countries that makes sense and that we are going to operate.

This approach ensures that as Whale Dock evolves and expands, each innovation receives legal protection, preventing competitors from copying or slightly modifying our designs to bypass our intellectual property rights.

Given the complexity of developing this technology from scratch, and the high risk of imitation by global naval industry players, we are implementing this patent waterfall approach. This ensures that each incremental technological advancement is legally secured, safeguarding our competitive edge while enabling sustainable market expansion.

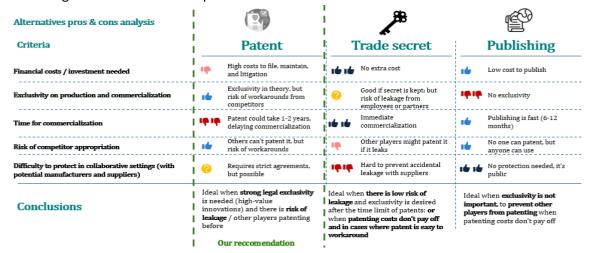


Figure 1: We assessed each Intellectual Property protection strategy pros and cons, building a 5 criteria matrix Stage 1 -Proof of Concept (PoC) (achieved):

At the PoC stage, our primary goal has been to secure the core technology through registering an European Patent. The protected elements include:

- The fundamental lifting mechanism based on the stabilization of the watertight compartments for each boat load distribution cases.
- The structural and hydrodynamic design of the platform.
- The automation and control system for efficient water transfer.

Since we have already secured funding from IDEAS of Ports 4.0, the next phase WD20LT prototype will serve as the first scalable application of our concept, validating our IP before further development for the next generations of Whale Dock platforms.

We are also generating interest in the industry and signed agreements with Facilitating Agents.

We have established a start-up with the domain for the name "Whale Dock SL" already bought and we are in process to release the official website, which we have the rights of www.whaledock.com.

As per the definition of basic engineering designs, creation of preliminary Capex and Opex scenarios for marketable platforms and conducting initial market studies to demonstrate the project's financial viability, we establish the foundation for patent protection by demonstrating the novelty, industrial applicability, and economic feasibility of Whale Dock. This strategic approach strengthens our intellectual property position, ensuring competitive differentiation and maximizing the project's

Whale Dock Pre-Commercial Project · The Future of Ship-Lifting Sergi Rivera Morcillo Barcelona, September 2025



commercial potential.

Stage 2 - Pre-commercial Phase (currently working on):

This stage is characterized by the inclusion of technological and financial partners who engage and contribute the necessary resources to ensure the project's viability.

During the pre-commercial phase, we will file a utility model for the software created for the 1-meter prototype used in the Proof of Concept (PoC) for the Puertos del Estado IDEA program. This step safeguards the unique functionalities and engineering solutions tested in the scaled-down model, reinforcing our patent strategy as we move towards commercialization.

Additionally, we will pursue utility model protection for the software developed for the WD20LT, as well as for the innovative systems designed within the platform. This ensures intellectual property protection for both the digital tools and the mechanical advancements introduced in the WD20LT.

This phase is critical as it involves significant initial capital and technological development, and the decision to proceed or not will necessarily be framed during this stage. Therefore, once significant improvements to the software have been made, our objective is to apply a patent on top of the existing one with the new features of design, technology and operational sequence.

In addition to the Patents, for trademark protection, we will work through the design, software and safety aspects towards the obtention of a certification of the prototype, to make the WD20LT market ready, and work on regulations and certifications for the use of the prototype in real environments.

Stage 3 - Commercial Phase:

As we develop the 250LTn version, new innovations will emerge, especially on the software and automation side of the patent, requiring additional patent filings. This stage will focus on:

- Scaling the system for medium-sized ships.
- Structural adaptations to increase load capacity.
- Advanced automation features, including AI-based load distribution and energy optimization.
- Refined construction methodologies to enhance durability and performance.

This phase will involve secondary patents to strengthen our IP portfolio with patents and utility models and prevent competitors from developing similar solutions using minor variations.

Stage 4 - Full-Scale Implementation (3,000 LTn & Beyond – Industry Adoption)

At the 3,000LT stage, Whale Dock will be at full industrial scale, and IP strategy will focus on:

- Global patent protection beyond Europe, including the US, Asia, and other strategic markets.
- Process patents for specific manufacturing techniques, engineering details of the operational sequence, and others.
- New energy efficiency systems to further reduce operational costs and environmental impact.

At this stage, licensing opportunities may arise, allowing shipyards and port operators to adopt Whale Dock technology under controlled agreements while ensuring our IP remains protected.

As a conclusion, the waterfall IP strategy will cover all the phases of the development of the full-scale implementation, and each new patent will adapt the already existing prototypes that can be



commercialized, into the new improvements.

6. Patent Registration Strategy – Expanding to International Markets

Since we plan to present Whale Dock at the Saudi Maritime Conference, we will extend our existing EU patent to Saudi Arabia, securing industrial property rights before entering that market. This same approach will be followed for every new country where we conduct commercial activities, presentations, or negotiations.

Target Countries for Patent Expansion:

- North America: Canada, USASouth America: Brazil, Chile
- Asia-Pacific: South Korea, Singapore, China, Vietnam
- Middle East: UAE, Saudi Arabia
- Africa and other emerging markets: Identified through market analysis and investors interest

By systematically expanding our patent coverage, Whale Dock will strengthen its global presence and exclusivity, preventing competitors from exploiting our technology in key markets.

Whale Platform should start by patenting its technology in most strategic markets... To launch the technology, Whale Platform should protect it through patenting in the largest markets with most significant shipbuilding and maritime hubs and/or highest risk of IP theft United States Singapore Canada European Japan South Korea Largest Market Union Leading Leader in Major player market with integrated with Covers multiple shipping and advanced in shipbuilding and strong IP US, robust key countries + maritime maritime industry and center with technologies strong IP developed here strong IP laws enforcement Although a relevant market, China was not prioritized due to weak IP enforcement and prevalence of IP infringement

... And could consider patenting in other markets for expansion in the future

- Evaluating each case individually, Whale Platform can consider other countries to expand in the future
- Some possibilities are
 Australia (access to Pacific region), India (emerging shipbuilding hub), Brazil
 (leader in offshore oil and gas) and Russia (significant shipbuilding player but has geopolitical risks)

Figure 2: We recommend Whale Dock to patent its technology in Europe, US and key Asian countries

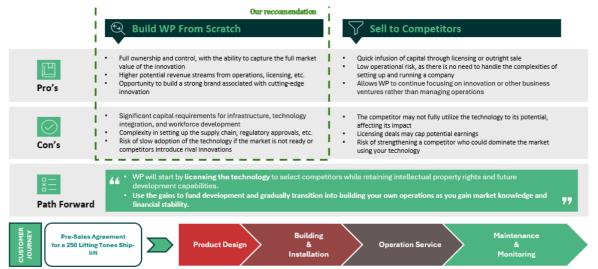


Figure 3: Going to Market with WD will involve establishing strategic partnerships with manufactures and Customers

WHALE DOCK: Milestones from May 2025 to October 2025

Previous

EMPRENDEDOR NAVAL 2025

May

June

August

September

October

Idea Program First registered

European Patent Under examination

+6 Letters of Interest collected

Digital Simulation



SHAREHOLDERS AGREEMENT

In April 2025, I still didn't have a team and was actively searching for a CTO. Thanks to the IDEA award and the "Emprendedor Naval 2025" program, I was able to bring together the team: CTO Xavi, COO Jaume, Business & Commercial Strategy Rafael, and Executive Advisor & first anchor investor Juan Vera.

On 16th June we presented in a Pitch Competition, the Blue Economy Investor Day, and had follow-up meetings with some possible investors.

On 3rd September, we stablished a Term Sheet and we are currently preparing the Shareholders' agreement.

PROTOTYPE

In March 2025, we developed a software to apply for the precommercial program subsidy.

From June to August 2025, we dedicated the summer to building a prototype.

We produced a video showcasing the experiments we carried out with the prototype.

We signed agreement with V de Bravado to build the next prototype: the Whale Dock 20 Lifting Tonnes

*Please click the images below to see both videos





INVESTMENT

Before joining the "Emprendedor Naval 2025" program, I didn't have a clear business model, didn't know how to approach investors, and didn't have clear the investment roadmap strategy.

With the support of my mentors, Ignacio and Andrés, we secured the first €100K investment from Juan Vera in September 2025. That was one of the greatest achievements of Whale Dock.

In July 2025, *Ports de Barcelona* invited us to *Salón Náutico de Barcelona* (October 2025) to present the Whale Dock project in a Conference and the prototype in a 3-days workshop.

+27 Letters of Interest collected



NAUTICO BARCELONA *Please see the photos of the event in the

*Please see the photos of the event in the following slides,.

OFFICIAL PRESENTATION SALON

October 2025 to March 2026

Short-Term Next Steps

Resolution of Precommercial subsidy for €300k

Investment of €500k from private investors

Start Production of WD20LT Prototype

















WHALE DOCK: EL FUTURO DE LA CONSTRUCCIÓN, REPARACIÓN Y MANTENIMIENTO DE EMBARCACIONES DE GRAN TONAJE

11 de octubre 16:45 h - 17:15 h

MODERADOR



Joan Carbonell

Responsable de soporte a la innovación y estrategia de negocio del Port de Barcelona



Sergi Rivera Morcillo CEO de WhaleDock



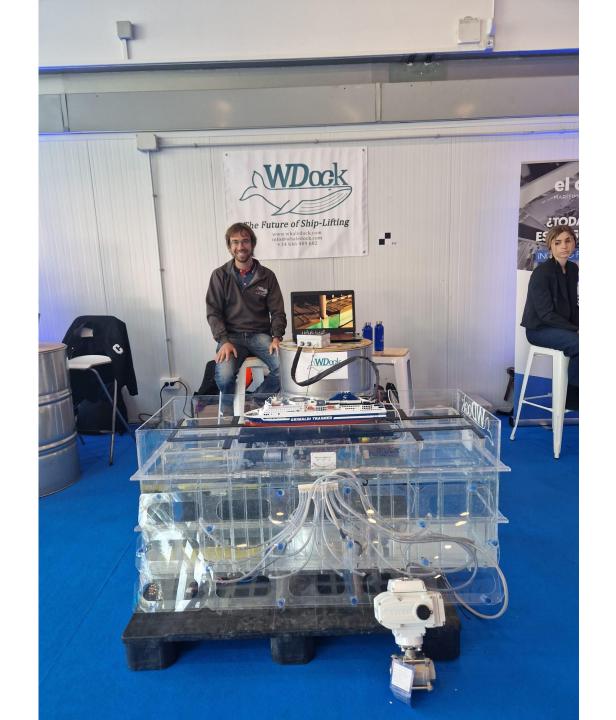
Xavier Gràcia CTO de WhaleDock



Juan VeraExecutive WhaleDock





















www.whaledock.com info@whaledock.com

Whale Dock, the new ship-lifting system for dry-docking vessels, enabling the construction, reparation and maintenance of heavy vessels in a more sustainable way. Safe, efficient, and 100% electric, it reduces costs, improves operational management, and reduces the carbon footprint by 78%. Designed for modern shipyards with forward-looking vision.

Founding Team



CEO Sergi Rivera Morcillo M.Sc. in Naval Engineering Shipyard management MBA at IESE 2025



CTO
Joan Xavier Gràcia
M.Sc. in Mechatronic Engineering
Expert in programming controllers
and simulations of dynamic systems



Jaume Boldú Sardans
M.Sc. in Naval Engineering
Management of international EPC
projects in renewable energy



CBO
Rafael Aznar Alonso
M.Sc. In Civil Engineering
Senior Executive & Board
EMBA at IESE 2016



Investor
Juan Vera
Former COO of CEPSA Group
Strategy and M&A Director
DBA at IE & MBA at IESE

Whale Dock **covers all ranges** of lifting capacity, and it can work with **multiple boats** at the same time

The Future of Ship-Lifting

The main problem with current boat lifting systems is the limitation in simultaneous operations (dry dock and floating dock), the maximum lifting capacity limitation (Syncrolift), the high associated costs common to all, and sustainability issues.

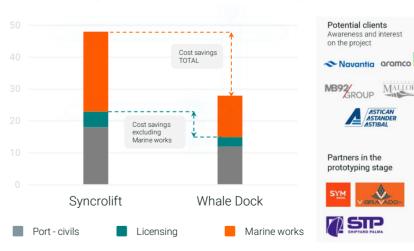
Dry-docking System	Maximum Capacity (Actual)	Operational Issues
Syncrolift	20,000 LT	Cable pulling, leveling issues, complex synchronization
Dry Dock	Unlimited (but inflexible)	Only one vessel at a time, downtime
Floating Dock	Up to 200,000T	Complex logistics, requires water depth and space, only one vessel at a time

Environmental Impact:

<u>Syncrolift:</u> Use of toxic lubricants and marine grease (marine pollution). <u>Dry/Floating Docks:</u> High energy consumption (water pumping); marine life and fish often die after mistakenly entering the dry dock.

The solution

- ✓ **Cost savings**, reduction of 40% CAPEX, 50% OPEX and 20% maintenance, saving up to €50M annually
- ✓ **Sustainability**, 70% reduction of carbon footprint; no marine grease leaked into the sea
- ✓ Operational optimization, reparation and construction of simultaneously vessels without limit lifting capacity

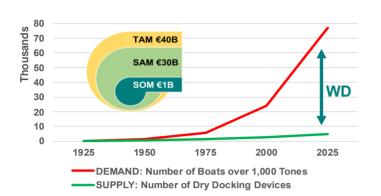




Market Opportunity

Whale Dock aims to address the supply and demand mismatch caused by the growing number and size of boats, combined with the limited capacity of current dry-docking technologies.

Gap Between Supply & Demand



f 12x Rise in shipyard waiting times

Sustainability regulations in maritime industry in the last 20 years

Years without significant innovation

Strategic Roadmap



3000LT monetization

Business Model: similar to Syncrolift today

- Sale of technology: design & software
- Support during construction: certification
- Post-installation support for O&M

Operational margins during monetization phase

Sale and construction

40% over sale price or €1.2 M/sale

0&M support

5%/annum over sale price or €0.15 M/year

5000LT model

EBITDA financed upscale

- Target: larger market scope
- Higher-value sales
- Brand creation

Scale-up cycle

Self-financed

Via pre-sales → financing WOCA

Via EBITDA \rightarrow the target is a larger market

Up to 25,000LT competing with Syncrolift Above 25,000LT competing with Floating dock

Beyond 20,000LT

A new market emerges

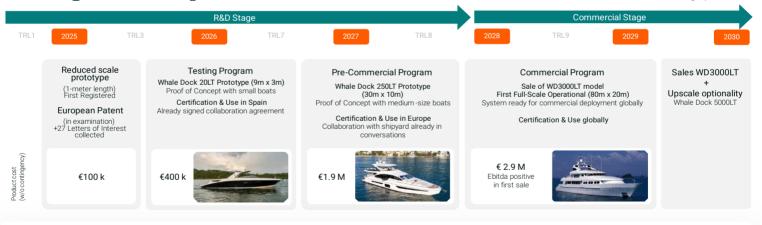
Floating Dock (FD) becomes the main competitor Much larger installed capacity → much larger potential market WD presents 2 main advantages vs. FD:

Lower CAPEX and OPEX

Optimizes better land use:

FD: only 1 vessel at a time

WD: number of vessels limited by land space, not by number of WD units → simultaneous docking operations



Total funding up to commercial stage

	Grants	Sales	Investors
Base Case	2.3	3.5	3.2
Worst	0.3	3.0	5.9

Investors' disbursements schedule in Base Case:

- WD20LT WD250LT
- 2027
- WD3000LT - 2029+ - assumed self-financed via pre-sale

Worst Case Considerations:

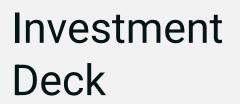
- WORST CASE CONSIDERATIONS.

 WD2DLT only after grant confirmed. No other grants considered

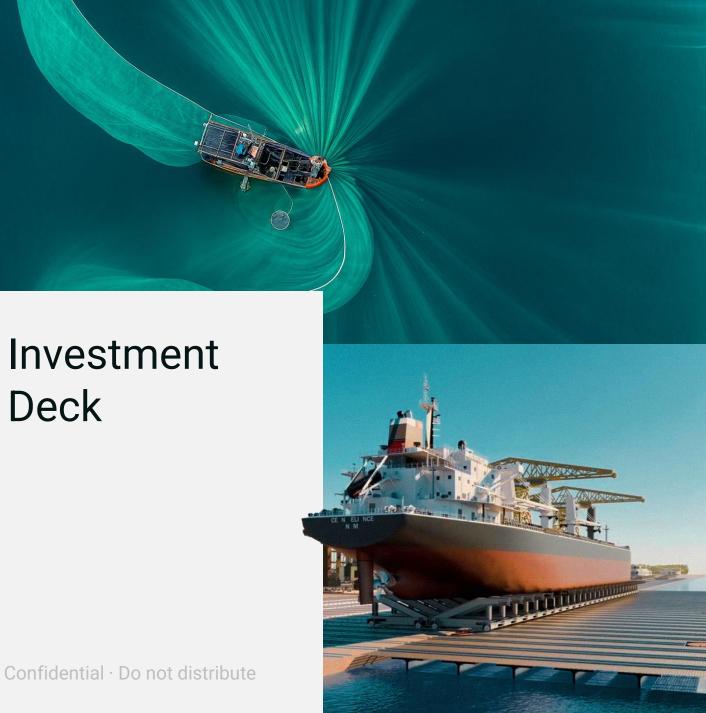
 No €0.5 M sale of the WD250LT spent in shipyard (not the current discussions' scenario)



The Future of Ship-Lifting







Content











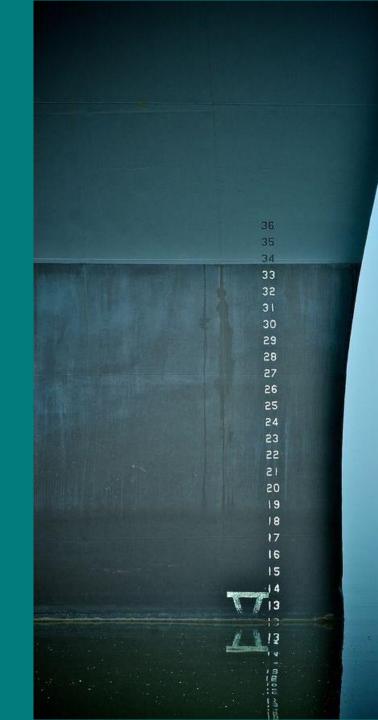
Market Opportunity Value Proposition Business Model

Investment Roadmap

Founding Team



1 Market Opportunity



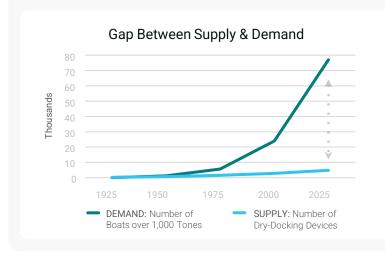
Market Opportunity

Whale Dock aims to address the supply and demand mismatch caused by the growing number and size of boats, combined with the limited capacity of current dry-docking technologies



Rise in shipyard waiting times

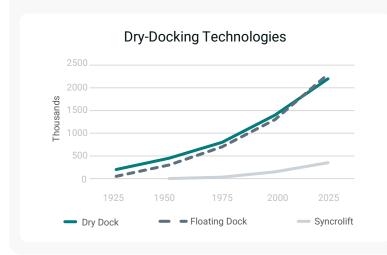
- > More boats being built than repair devices being built.
- > Larger boats being built requiring specialized equipment.
- > Combination of growing fleet and larger sizes for boats.





Sustainability regulations in maritime industry in the last 20 years

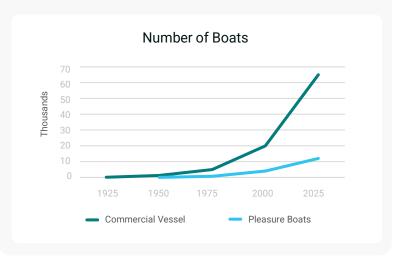
- > Energy efficiency and carbon footprint reduction.
- > Zero-discharge policies in shipyards and harbors.
- Shipyard pollution prevention regulations and control of processes.



75+

Years without significant innovation

- Dry Dock was invented in the 1400s, 600 years ago and still a used technology.
- Floating Dock was invented in the 1800s, 200 years ago and still a used technology.
- > Syncrolift was invented in 1948, 76 years without any significant innovation.



The ship industry is increasing in size, weight, and units, due to an increase of the economy and global transportation needs.



Value Proposition



Differentiation From Current Market Alternatives

Whale Dock addresses the three main challenges of actual "state of the art" technology, benefitting the maritime industry





40%

Capex

Whale Dock minimizes material and marine foundations using a simplified system.



↓ 50%

Opex

Better energy management, reducing operating costs.



20%

Maintenance

Reducing engine components and spare parts compared to Syncrolift.

Sustainability



78% CARBON FOOTPRINT

Stop CO₂ Emissions

Whale Dock reduces carbon emissions compared to Syncrolift.



STOP WASTE

Marine Grease & Material Waste

Whale Dock protects the marine ecosystem, eliminating harmful marine grease and non-usable cables & spare parts.



SUSTAINABILITY ALIGNMENT

Conforming to EU Directives

Directive 2010/75/EU minimizing emissions & leaks. Marine Strategy Framework Directive (2008/56/EC). MARPOL Annex 3: EU restrictions on oil waste

Operational Optimization



UNLIMITED

Lifting Capacity

Simplified load management, offering scalability to accommodate a wide range of vessel sizes and weights.



ALLOW

Multiple Boats

Simultaneous operations on multiple vessels, allowing the transfer to land to optimize workflow.



SIMPLICITY

24 Engines to 2 Pumps

Simplified performance by replacing 24 motors with two pumps.

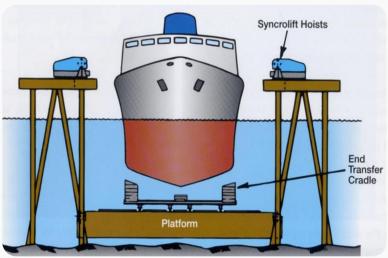


Differentiation From Current Market Alternatives - Syncrolift

The Syncrolift current technology, leader in the 3,000 – 25,000 LT segment, still uses cables to lift vessels, resulting in physical load capacity limitation due to the elongation of cables and the oversized beam deflection









Cables were the only option in 1948 when the Syncrolift was invented, and today, ship lifts are still using the same principle – pulling vessels up with cables.

Tap to see a Syncrolift performance

- Limited lifting capacity leads to a reduction of the objective market by more than +80%.
- Simply supported beams experience significant mid-span bending requiring huge oversizing, which leads to an increase of +30% CAPEX.
- Marine lubricants and greases inevitably leak into the ocean, representing an environmental problem.



Differentiation From Current Market Alternatives - Floating Dock

The Floating Dock, a big player in the 20,000 – 120,000 LT segment, uses the buoyancy floating systems of vessels to lift vessels, resulting in a big load capacity but low operational flexibility and high investment and operational costs





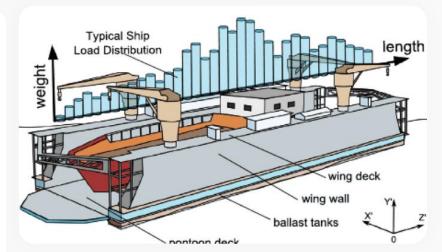
The system was globalized and made with steel on the XIX century.

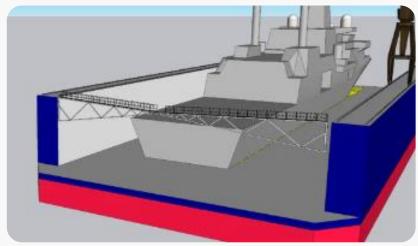
The original U-shape design, which offers a buoyancy stability, forces a lack of operational optimization of the solution, nowadays.

Tap to see a Floating Dock

- Limited operational flexibility: since it can only dock one boat at a time, leads to a reduction of the profitability of the system. Operational material and cranes on boards are limited.
- Toeing increases OPEX (+40%).

 Conventional ballasting with oil pumps emits CO₂ in ports, whilst WD reduces these emissions.







Differentiation From Current Market Alternatives - Whale Dock

Whale Dock's technology presents the new ship-lifting solution aiming for a game-changer via lifting capacity, cost reduction vs actual technologies, and operational optimization for the shipyards of the future





As many good ideas, the simpler, the better.

In Whale Dock we use Archimedes Principle, we don't use cables.





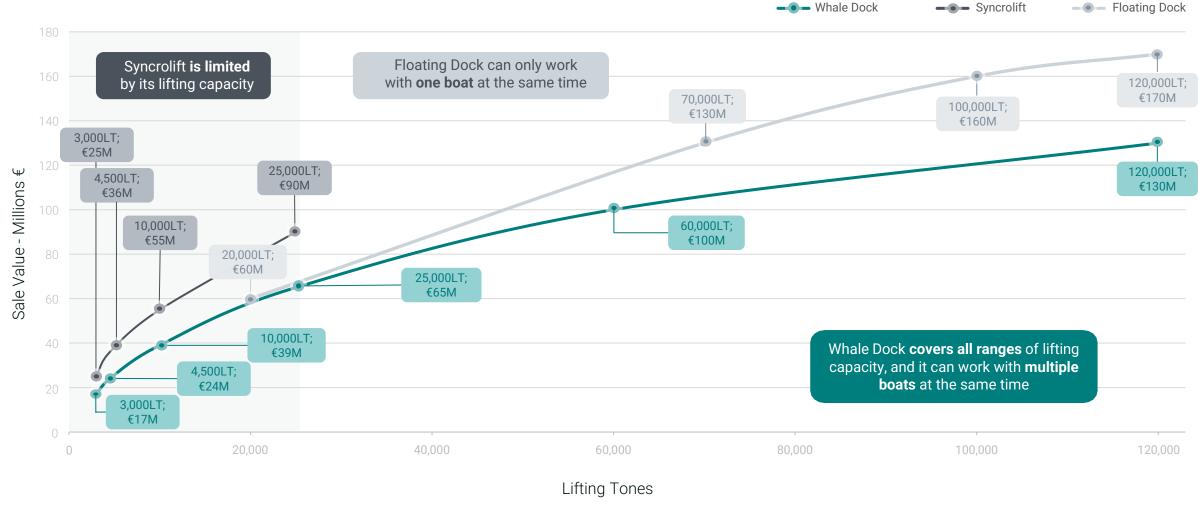
The patented software, adjusts each buoyant watertight compartment of the Whale Dock according to the vessel's load distribution, ensuring a uniform and stable lift, depending on each vessel weight distribution.

Tap to see the Whale Dock in action



Differentiation From Current Market Alternatives - Whale Dock

Whale Dock delivers full-scale performance across all lifting capacities at a lower cost than Syncrolift and Floating Docks





Business Model



Initial Stages

20LT model



- > Proof of concept
- > Showcase for clients and stakeholders

250LT model



- > Industrial scale model
- Showcase for clients and stakeholders
- > Potential add-on for port concession holder
- > Generating a small revenue

Commercial Stage

3000LT model



Pre-sale of commercial model

- > Low margin sale → target: installation
- > Showcase for clients / stakeholders

3000I T monetization

Business Model: similar to Syncrolift today

- > Sale of technology: design & software
- > Support during construction: certification
- > Post-installation support for O&M

Operational margins during monetization phase

Sale and construction

40% over sale price or €1.2 M/sale

0&M support

5%/annum over sale price or €0.15 M/year

Upscaling

5000LT model



EBITDA financed upscale

- > Target: larger market scope
- > Higher-value sales
- > Brand creation

Scale-up cycle

Self-financed

Via pre-sales → financing WOCA Via EBITDA \rightarrow the target is a larger market

Sizes

Up to 25,000LT competing with Syncrolift Above 25,000LT competing with Floating dock

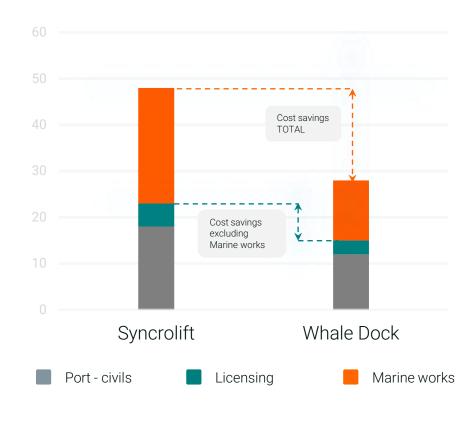


Business Model – First Sale of WD3000LT

Delivering a product with a 40% lower price than its competitor (Syncrolift)

Breakdown of sale price to a client

In €M - Syncrolift figures by own estimates Civils and port concessions costs not included







Sales (Licensing) covers

Technology

Engineering and design documentation

Control software

Construction supervision

Quality control pre-start-up

Start-up support

Post sale support (O&M)



Subsequent sales

Enjoy the margin within "Licensing" in the chart - €3 M/sale

Plus, an annual O&M support fee - €0.5 M/installed unit - cumulative on installed units



First sale has very little margin

Showcase

Includes construction supervision

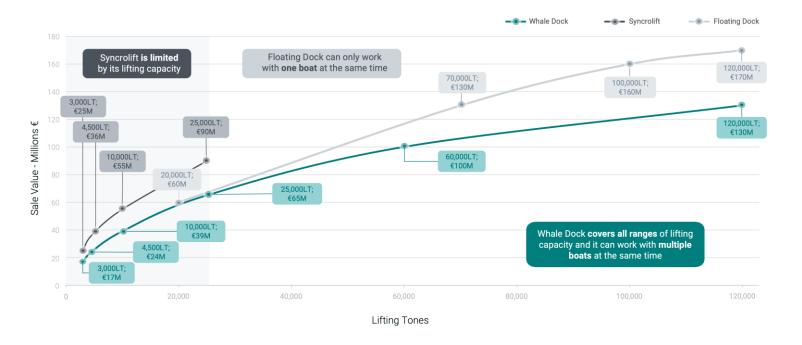
WOCA financed by client

Client obtains for €15 M total an equivalent of a €25 M Syncrolyft



Business Model – Upscaling Models

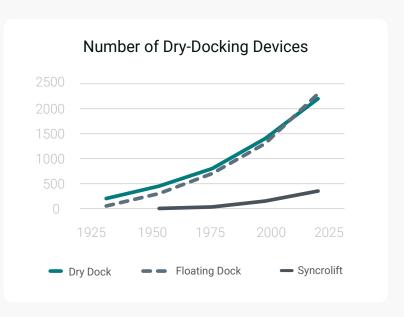
Leveraging on built models to upscale and unlock new markets



Upscaling models

- > Adds products to the sale portfolio → increase the potential client base
- > Sales with a much higher value → larger margin per sale
- \rightarrow The larger the size, the smaller number of global sales \rightarrow more difficult to sell





Beyond 20,000LT a new market emerges

Floating Dock (FD) becomes the main competitor

Much larger installed capacity → much larger potential market

WD presents 2 main advantages vs. FD:

- > Lower CAPEX and OPEX
- > Optimizes better land use:

FD: only 1 vessel at a time

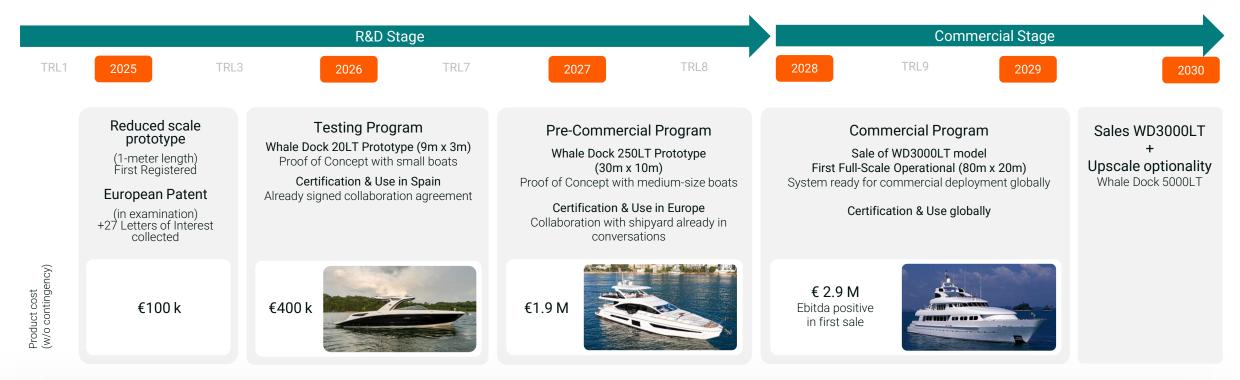
WD: number of vessels limited by land space, not by number of WD units → simultaneous docking operations

1 Investment Roadmap



Investment Round – Strategic Roadmap To WD3000LT

From initial prototypes (TRL3) to first full-scale operational product



Total funding up to commercial stage

	Grants	Sales	Investors
Base Case	2.3	3.5	3.2
Worst Case	0.3	3.0	5.9

Investors' disbursements schedule in Base Case:

- WD20LT - €750 k - 2026 - WD250LT - €2.3 M. - 2027

- €2.7 M. - WD3000LT - 2029+ - assumed self-financed via pre-sale

Worst Case Considerations:

- WD20LT only after grant confirmed. No other grants considered
- No €0.5 M sale of the WD250LT spent in shipyard (not the current discussions' scenario)
- Pre-sale of first WS3000LT a must to engage construction



Investment Round - Year

Base Case Scenario - Total investment required

Figures in €mm	2026	2027	2028	2029	2030	2031	2032	Subtotals
PROTOTYPE	WD20LT	WD250LT	WD3	000LT	WD50	000LT		
Construction/ Licensing	-0.40	-1.70	-2.30					-4.40
Certification		-0.20	-0.60		-1.00			-0.80
Contingency (30%)	-0.20	-0.60	-0.90					-1.70
Pre-Sales WOCA				-2.00		-3.00		-5.00
Sales WOCA		0.50	1.00	1.50	1.50	2.00		
Sales' income (1.5/unit)				0.50	3.00	4.50	6.00	14.00
O&M income (0.15M/y-unit)					0.15	0.45	0.90	1.50
Sales' income (2.5/unit)						1.50	5.00	6.50
O&M income (0.25M/y-unit)							0.25	0.25
Grants	0.12	0.18	0.80	1.20				2.30
COMPANY EXPENDITURES	-0.25	-0.50	-0.70	-1.00	-1.20	-1.50	-1.70	6.85
TOTALS PER YEAR (€M)	-0.73	-2.32	-2.70	0.20	2.45	3.95	10.45	
Cumulative cash needs	-0.73	-3.05	-5.75	-5.55	-3.10	0.85	11.30	
ENTERPRISE VALUE (6XEBITDA	A)				14.70	23.70	62.70	

Pre-commercialization stage	2026	2027	2028	2029	Subtotals
Expenses	-0.85	-3.00	-4.50	-3.00	-11.35
Grants	0.12	0.18	0.80	1.20	2.30
Sales (all income)		0.50	1.00	2.00	3.50
Investors (cash disbursement)	-0.73	-2.32	-2.70		-5.75

Investors' disbursements are conditional on:

- Cash-in from grants
- Contingencies spent

Note: contingencies are requested before construction start to ensure non-stop works

Potential clients

Awareness and interest on the project













Partners in the prototyping stage









Investment Round – Financing Considerations

Aiming to have full visibility down to 2029 - 2030



Equity or convertible funds for

First 4 years of operation Up to €5 M (Base case) to €8 M (Worst case) Coverina:

> 20LT model certification → large prove of concept 250LT model certification → industrial scale showcase Company costs



Subsidies / Grants

Considered an upside to reduce cash needs (and less financing) Seeking not to depend on cash disbursement → target is to prepare for models' construction and certification, and not to stop until achieved



Conditions precedent

Budgets and disbursements are scheduled by phases/models Each model (20LT, 250LT and 3000LT) enjoys the same cycle

Prepare detailed budget and construction contracts Approve construction budget and 30% contingency Construct and certify Finish cycle and start next

Only when a full cycle is complete, the next is started Targets are:

> to delay cash deployment as much as possible whilst ensuring that construction is achieved as fast as possible once budget is approved



Management of the company

By company team

Operations focusses on build & certify CEO focusses on operations and sales Corporate focusses on budget & cost control

Financing rounds preferably led by leading funding entity Reporting to the Board Reporting and control requirements defined by shareholders



5 Founding
Team



Founding Team

Blend of extensive experience in the maritime industry sector with a proven track record of company and project management successes, with a seasoned advisory panel → all-in into the project



CEO Sergi Rivera Morcillo M.Sc. In Naval Engineering Shipyard management MBA at IESE 2025



CTO Joan Xavier Gràcia M Sc. In Mechatronic Engineering Expert in programming controllers and simulations of dynamic systems



C00 Jaume Boldú Sardans M.Sc. In Naval Engineering Management of international EPC projects in renewable energy



CBO Rafael Aznar Alonso M.Sc. In Civil Engineering Senior Executive & Board FMBA at IFSF 2016



Investor Juan Vera Former COO of MOEVE Group MBA at IESE





José Rivera Hernández Senior Civil Engineer General Manager at IDOM Barcelona & LATAM EMBA IESE Business School



Mathieu Carenzo **Business Advisor** Investor & IESE Prof. Advisor to the CEO & Board Start- up business mentor



Albert Fernández **Business Advisor** FINAVES Director & IESE Prof. Advisor to the CEO & Board Start-up business mentor



Pablo Serra Legal Advisor Partnership agreements Joint ventures, M&A EMBA IESE Business School



William Pegram Senior Naval Engineer Founder ISONAVAL Architects Technical project & feasibility Maritim structural calculations



Rafael Pou Feliu Senior Civil Engineer Structural manager at SENER Maritim structural feasibility Advisor of maritime works



The Future of Ship-Lifting

WDock

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Naval Engineer COIN no 3390



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03

04

05

Annexes

Investment Round – Yearly figures

Worst Case Scenario – Total investment required

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O&M income (0.25M/y-unit)							0.25	0.25
Grants	0.12	0.18						0.30
COMPANY EXPENDITURES	-0.25	-0.50	-0.70	-1.00	-1.20	-1.50	-1.70	6.85
TOTALS PER YEAR (€M)	-0.73	-2.82	-3.50	-1.00	2.45	3.95	10.45	
Cumulative cash needs	-0.73	-3.55	-7.05	-8.05	-5.60	-1.65	8.80	
ENTERPRISE VALUE (6XEBITDA	A)				14.70	23.70	62.70	

Pre-commercialization stage	2026	2027	2028	2029	Subtotals
Expenses	-0.85	-3.00	-4.50	-3.00	-11.35
Grants	0.12	0.18			0.30
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The Future Of Ship-Lifting