

**BLUE ECONOMY**

*Sector Focus*



# Repair & Refit activity within the nautical sector

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# Summary



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# Nautical Repair & Refit: the keys for vessel maintenance and repair

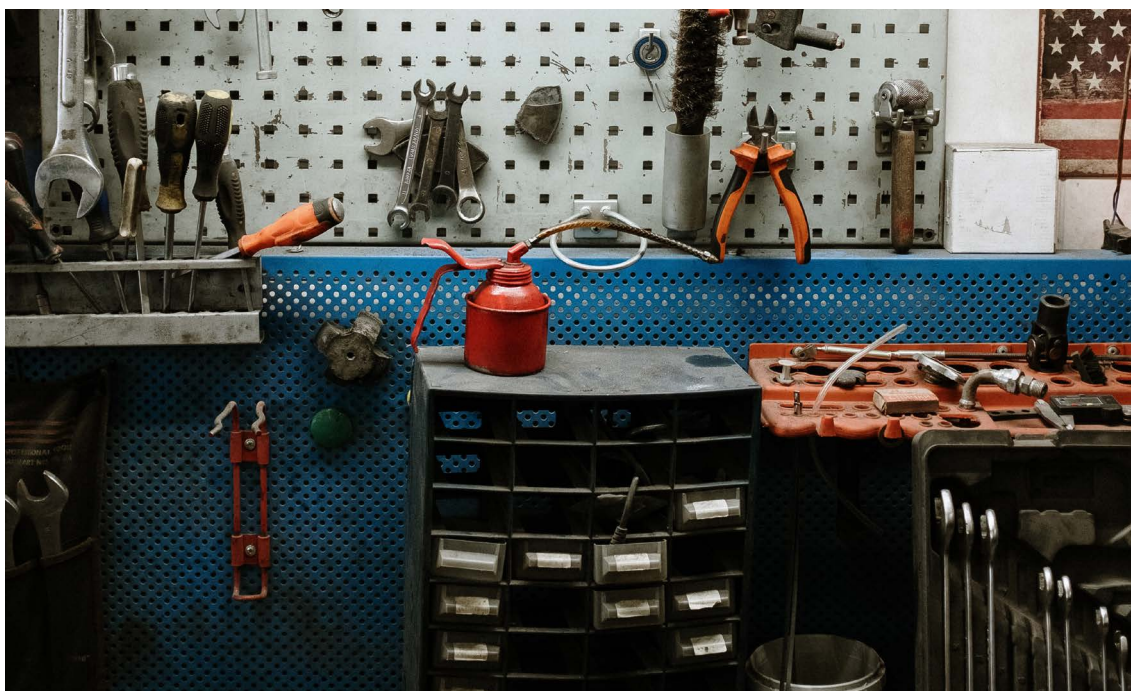
Catalonia has almost **800 kilometres of coastline with 44 marinas and seaports**, amongst which the ports of Barcelona and Tarragona stand out. This is why the **Blue Economy is being promoted** as an economic pole in the city of Barcelona, which vertebrates the Catalan coastline and its economy.

Sports and recreational boating is present throughout the Catalan coast and it is of **strategic importance** in the Port of Barcelona. This type of boating includes activities related to the learning of sports practice, as well as services for all types of boats and their crews when they dock in the marinas, either to perform maintenance operations or to make a stopover.

Within the Blue Economy, the recreational boating area is one of the fastest-growing in recent years. Cities like Barcelona **increasingly look to the sea and boating** becomes a **leisure space** for citizens — who can perform **multiple activities** —, and also becomes a tourist attraction.

Recreational boating involves vessels of various kinds, intended for different uses, that make up a specific type and that consists of small sailing boats — used for the different modalities of windsurfing, kayaking or canoeing, nautical skiing or jet skiing — yachts, boats that make short tourist journeys, megayachts and all types of sailing ships, among others.

Within ports, marinas are the areas where tourism, sports and recreational boating ships are concentrated. They offer **provisioning services** (water and fuel, among others) and **maintenance and repair** services to keep vessels in excellent sailing conditions. In Barcelona the entities that lead the repair and maintenance services for yachts and megayachts are [Marina Port Vell](#) and [MB92](#).





Regarding Repair & Refit services, it must be pointed out that having the capacity to accommodate long yachts implies a very significant **economic return** and a **demand for professional services** that derives from the expenses of these vessels.

The increase in this activity has helped to **consolidate the supply of sports boating** and, indirectly, the demand for maintenance and repair services has grown. Barcelona is becoming a **reference port** in the Repair & Refit area, as it has one of the most prestigious shipyards in the world in this field, with the **necessary infrastructures** to accommodate large-scale vessels, with a unique draft in the Mediterranean and a strategic position for vessels travelling between the Mediterranean and the Caribbean.

Ports traditionally offer this type of service because it is where ships moor and get supplies, and also the access point for recreational boating users. Wear and tear, the necessary replacement of some parts, the incorporation of new technologies or the implementation of technical regulations justify Repair & Refit services in port facilities. This is how a **specific professional demand** is created for the different nautical Repair & Refit services.



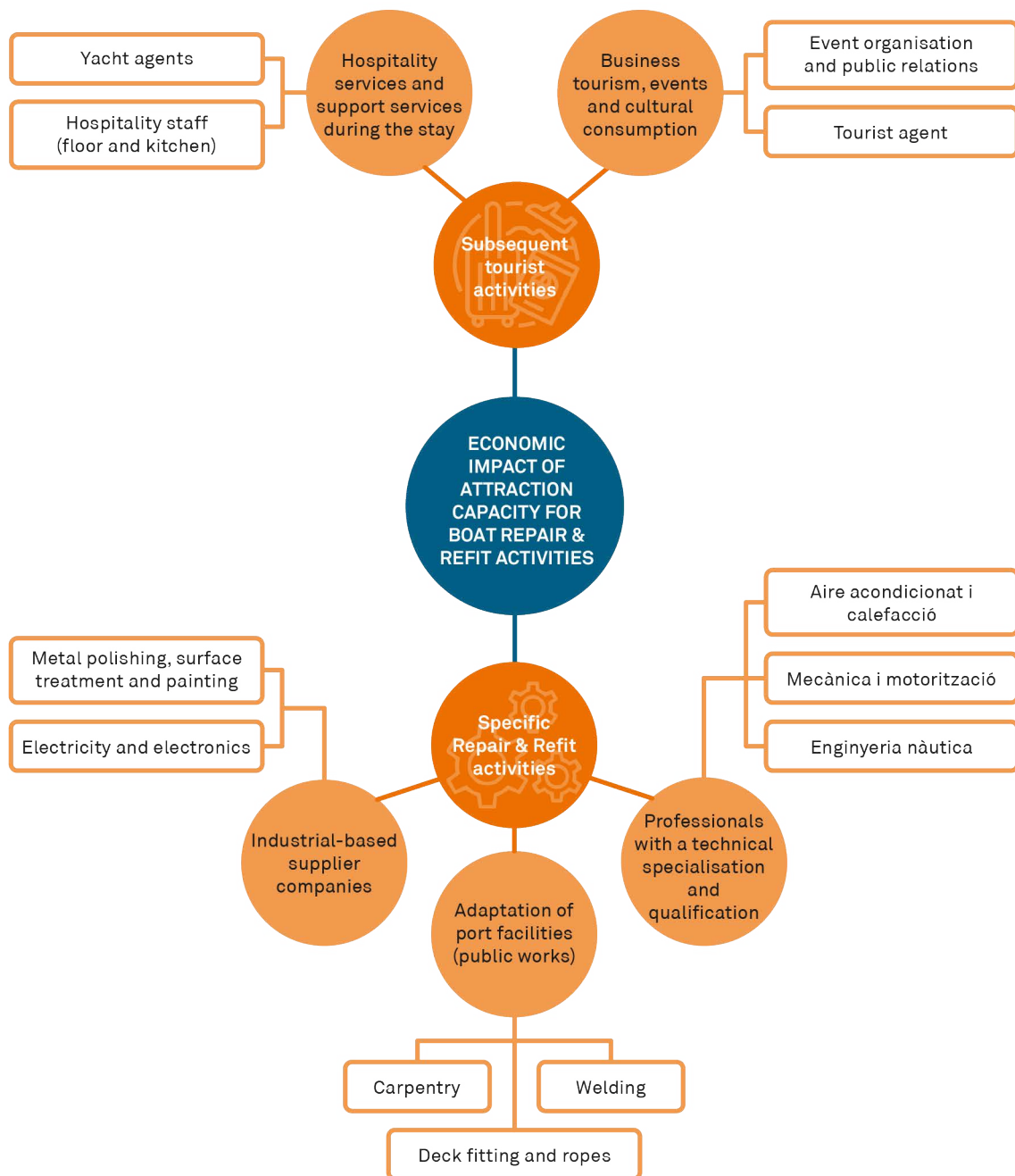
According to data from Barcelona Nautical Cluster, the industrial activity of recreational boating in Barcelona involves **66 companies** with an annual turnover of **181 million euros**, which employ **1,852 people**.

The strategic commitment the city has made to the Blue Economy is reinforced by the excellent figures of the nautical sector as a whole. In **Catalonia, boat registrations in 2021 grew 30% compared to 2019**. This sector also sees a growth in demand for mooring experts in marinas, as well as in long-term stays in ships, which have enabled tourists to better discover the potential of the Catalan coast.

As mentioned above, the construction of a new, specific dock for the repair of large yachts and megayachts allows any type of **maintenance and repair operation** on this type of vessel and has a great dragging capacity in technical jobs and crafts. At the same time, the crews working on these yachts and megayachts also require services of all kinds (legal, accommodation and leisure services, among others) while the repair period lasts, resulting in a **great induced effect**.

Graphically, the impact of the **attractiveness of yachts and megayachts** in the Port of Barcelona and along the Catalan coast is as follows:

**Figure 1.** Impact of the attractiveness of yachts and megayachts in the Port of Barcelona and along the Catalan coast.



Source: Prepared by the authors.

# The impact of nautical Repair & Refit on professional profiles

Beyond the inspections, maintenance, and repairs that ships must undergo regularly, some owners consider reconverting or refurbishing their yacht to give them **new functionalities or nautical abilities**.

Regarding ships, it is important to differentiate between those who carry out their activity with the **same port as a base** and those who have **the technical capacity to sail around the world**, switching from one port to another. Generally speaking, whether a ship can sail on the high seas depends on its technical characteristics, which are usually linked to its size and engine power. Within recreational boating, only yachts and megayachts have this capacity and can therefore sail around the world, which implies that they can access repair and maintenance services in any port. This reality leads to a **globalisation** of the repair market and **international competition** to attract this type of vessels.

The main **technical skills** of the professional profiles linked to Repair & Refit are:



**Auxiliary technical services:** cleaning, divers, auxiliary cranes, setting up scaffolding systems and covering ships under repair, among others.



**Mechanical services:** comprehensive maintenance and repair of engines, repair of transmissions and direction cylinders, installation of auxiliary navigation aid systems, inspection and maintenance of propellers and stabilisers, complementary hydraulic and electrical installations, cleaning of fuel tanks and technical cleaning, among others.



**Rigging** (conditioning or renovation of the ship's central pole): deck fitting, comprehensive rigging services, steering systems, rope services and refits, manufacture of tailor-made parts of stainless steel or titanium, among others.



**Carpentry:** deck construction, tailored interior furniture manufacture and assembly, indoor upholstery, hull caulking, comprehensive varnishes and maintenance, lacquers, among others.



**Composites:** repair and manufacture of composite parts, structural repairs of vessels, repairs in carbon or glass fibre, repairs with polyester resins, installation of synthetic covers, among others.



**Painting:** comprehensive painting systems, hull and deck full treatments, internal and external varnishes, osmosis treatment, anti-slip treatment, among others.



**Hydraulics:** maintenance of hydraulic systems, rolling systems, anchor grinders, comprehensive propulsion systems, stabilisers, cranes, gangways, closure mechanisms, among others.



**Metalwork:** structural and detailed vessel transformations, comprehensive reforms in aluminium, modifications in naval steel, tailored parts design, boiler making, mechanised works, locksmithing, among others.



**Electricity and electronics:** heating systems, design of special refrigerators, reverse osmosis purification systems, electrical installations, navigation electronics, GSM and satellite navigation systems, domotics systems, batteries, among others.



**Commercial skills and technical knowledge to offer specialised care and advice and expert assistance to the vessel owners to define the Repair & Refit project:** definition of operations, project management, coordination of the several industrial teams involved, movement of vessels to manage work below the waterline, post-sales services (technical monitoring and advice, insurance management), among others.

This range of professional skills are highly specialised in the professional field of R&R. Basically, professionals need a **mastery of the trade** and a **high level of autonomy, technification and orientation to quality and finishes**. We must also take into account two conditions have a significant impact on R&R. Firstly, there is the possibility of “**marinising**” **traditional occupations**, for example in the fields of electrical installations, carpentry or painting, who can apply their knowledge in this area. Secondly, a **high level of the English language** is required in all occupations, since the boating sector is highly internationalised and the technical and regulatory requirements of R&R operations are written in English.



## A focus on R&R

Currently, the nautical sector is a source of wealth **generation and job creation**. In the case of Barcelona, strategic investments are being made in order to attract more nautical activity and maintenance and repair activities in the city. In this context, Barcelona has **positioned itself as a global service centre for all types of ships**. This is complemented by the fact that in Catalonia there are currently seven ports with the capacity to host superyachts. Thus, according to the **Catalan Ports Plan**, the trend in recent years is to adapt ports and facilities to meet the demand for mooring experts in large vessels, so that large yachts from northern and eastern European countries can spend the winter in Catalonia.

In addition, the government of the city of Barcelona, in coordination with private agents in the nautical industry, is **strategically promoting the Blue Economy**, since it is expected to be a job-generating sector in the next few years and to contribute to the achievement of the **objectives of the Ecological and Digital Transition**.

In summary, the following key elements of R&R activity stand out:

- The emergence of a powerful nautical-related economic sector — along with the fact that the adequate investments and facilities have been made in the port — has led to Barcelona becoming a **global R&R reference centre** for recreational vessels sailing intercontinentally.
- The nautical industry has a large dragging capacity because it requires parts, components and widgets provided by the industry. It also has a large absorption **capacity of highly qualified and**



**specialised technical professionals** (e.g. in the field of welding, metal polishing or surface coating).

- In terms of economic impact, Barcelona becoming a specialised R&R hub is also related to the fact that it is a **global tourist hub**. Both realities complement and reinforce each other, which is not the case with other ports with which the city competes internationally.

Finally, Barcelona Nautical Cluster points out that the sector has a challenge in adopting sustainable solutions. For example, the development of **zero-emission elements, the electrification of the fleet** (leaving back the use of fossil fuels) and **hybrid supplies**. The aim is to make the reactivation of companies in the sector compatible with their sustainability.



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