

Economic Contribution Study

-

The European Superyacht Industry

## Preface

The superyacht industry is a really discreet one, a characteristic that made it challenging to understand and assess this industry from an outsider's perspective. We are grateful for the help of the numerous industry professionals who volunteered to be interviewed, to provide data, to open their professional network or to share the latest publications with us. We would like to express our gratitude to our principals at MYBA Gaye Joyeau-Bourgeois, Coralyn Tracey and John Wyborn. In addition, we would especially like to express our sincere gratitude to Kim Borgmann, Christophe Ceard, Rob Dolling, Tom Foy, Marta Iglesias, Susan L. Kidd, Daniel Küpfer, Alexander Napp, Nils Olschner, Heather Parkman, Alma Prins-Droog, Laurent Roussillon, Raphael Sauleau, Alexander Schoeller, Zeld Swindell and Nataliya Verpeka.

In the end, we would like to take this opportunity to particularly thank our supervisor and mentor at Queen Mary University of London, Garry A. Gabison, for his help and support, his advice and guidance throughout the making of this report.

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## **Abstract**

*The superyacht industry is divided into three sectors: construction (including refit), management (including brokerage) and ancillary services. All of them have business centres across Europe. The superyacht industry contributes to the economy in these centres and has wider economic impact. The data from over 15,000 companies shows that the construction industry is the dominant sector, both in terms of revenue and employees. This sector is characterised by its heterogeneity. The pandemic has had a significant impact on the numbers of sales and purchases in early 2020 but these numbers rebounded in the second half of 2020.*

*The superyacht management and the ancillary services industries are more homogenous. The superyacht industry impacts the local economy through the collaboration with suppliers and wages paid to employees. The superyacht industry indirectly impacts the local economy through – amongst others – local expenses of charterers. The advance provisioning allowance approximates the impact of chartering to the local economy. In 2020, this advance provisioning allowance amounted to more than EUR 300 million, a EUR 18 million drop compared to the previous season. This 6.4% decrease can be attributed to the COVID-19 pandemic.*

## **A. Introduction**

This report investigates the economic contribution of the superyacht industry in selected European countries. It is conducted at the request of MYBA The Worldwide Yachting Association. MYBA wished to determine the current economic contribution of the superyacht industry in Europe.

The superyacht industry is opaque because most companies operating in the industry are privately held. This opacity makes assessing its economic contribution challenging. Our results show that the industry has a significant impact on the local economy; but our estimations may not capture the full impact of the superyacht industry.

This report is divided into three sections. Section B describes the methodology and approach of the report. It also discusses the literature review. Section C describes the industry sectors and the European countries this report focuses on. Then, it describes the data collection process and presents the results. The report divides the industry into three different sectors and focuses on the respective business centres for these sectors. Section D concludes.

During our investigation, we found that the Côte d'Azur including the Principality of Monaco is the main European centre for superyachts with activities in all industry subsectors. In the construction sector, Italy dominates with the most companies (283) and the highest total revenue (EUR 2.6 billion). The superyacht construction industry varies across the investigated regions.

The management and the marina industry sectors are more homogenous. Companies across all geographical areas in these sectors report similar figures. An investigation of the sales and purchase brokerage part of the management industry in particular revealed average EUR 200 million in annual revenues from commissions. The indirect impact of the superyacht chartering industry has contributed at least between EUR 230 and 300 million to local economies in the last twelve months.

Lastly, the report addresses current trends and developments. The report was started in 2020 based on 2019 data. Since then, the COVID-19 pandemic has affected the global economy. The professional literature has been trying to project the impact of the pandemic. Where our data allowed, we checked these prognoses and assessed the impact of the COVID-19 pandemic on the superyacht industry.

## **B. Background**

### **I. Methodology**

To narrow down the scope of research and to better grasp the industry, we followed a four-step process. Firstly, we reviewed the literature on superyachts. We focused on understanding the industry structure, identifying the players involved and finding a definition for “superyacht”.

Secondly, we conducted interviews with various industry stakeholders to get an understanding of the industry. The interview partners come from superyacht management firms, chartering firms, shipyards and ports berthing superyachts. They cover the full spectrum of the superyacht industry.

Thirdly, based on the literature and interviews, we divided the superyacht industry into three sub-sectors and identified the European centres for each sector.

Then, to identify the impact on the local economy, we gathered microeconomic data from multiple sources. Some of these results were contrasted with macroeconomic data from Eurostat and visualised and analysed using Tableau. This report includes excerpts, the complete visualisations will be enclosed.

We underline that the figures in section C are based on data representing the whole industry which could vary from other industry related data, especially from data on company level.

## II. Approach

Economic analysis can be conducted in two ways: (1) measuring economic activities and (2) measuring economic benefits. The present report falls into the first category – a report to measure economic activities. Economic activity reports can be conducted as an economic contribution analysis or economic impact analysis.

- An **economic impact analysis** assesses the net changes in new economic activities that are related to a specific industry in a particular region. It looks at what economic activity would most likely be lost if the respective industry was removed from that region, taking into account how people would substitute those economic activities. (Watson et al., 2007)
- In contrast, an **economic contribution analysis** is a descriptive analysis which looks at how the economic activity of a specific industry moves through the region's economy. It deals with gross changes in the region's economy (Watson et al., 2007).

This report on the superyacht industry is an economic contribution analysis, qualifying the contribution of all superyacht industry sectors by looking at employment numbers and corporate revenues. The report focuses on the direct effect of the superyacht industry on the economy and also provides some insight into the indirect effect.

- **Direct effect** comprises of the contribution generated by companies directly involved in the superyacht industry such as companies building and refitting a superyacht, suppliers associated therewith, superyacht management as well as ports and other ancillary services.

- **Indirect effect** reflects the rising demand for services related to the superyacht industry, such as businesses and restaurants located at a marina or port or companies associated with management and brokerage companies.

We compare the microeconomic data with macroeconomic data from Eurostat to put the results into context, where it was possible.

### III. Literature review

Literature on the superyacht industry can be divided into two streams: research and professional publications. On the one hand, research publications focus on different aspects and characteristics of this industry. On the other hand, articles in professional publications contain elements of academic research such as impact studies, interviews and industry publications but do not serve an academic purpose and are used for advertisement. This has to be kept in mind when reviewing these kinds of publications. When publications were fee-based, we had to rely on secondary sources.

#### *Definition of a superyacht*

Scholarly and professional publications do not agree on the definition of a superyacht. While length distinguishes a superyacht from a “regular” recreational boat, the superyacht definition varies from vessels over 20 metres (Sterringa, 2019; SYI, 2014<sup>1</sup>), over 24 metres (AEC, 2016; Alcover et al., 2011; Asthana et al., 2013; Camper & Nicholson, 2016<sup>2</sup>; Cebr, 2017; Francesetti, 2008; Nastasi, 2005; Nineham, 2016) and over 30 metres (Bruinsma and de Graaff, 2019; The Superyacht Report (various editions); Thomas, 2019). The superyacht classification is independent from propulsion (Camper & Nicholson, 2016; Merendino, 2013; Nineham, 2016).

Depending on the definition, the total number of superyachts in existence varies. As of 2016, over 10,000 superyachts with a length of 24 metres or more were registered (Nineham, 2016). The number of superyachts over 30 metres increased from 4,136 in 2010 to 5,373 at the beginning of 2019 (Thomas, 2019) and further to 5,559 in December 2019 (The Superyacht Report, 2020a). Almost 50% of the global superyacht fleet lies within a range between 24 metres and 30 metres.

For the over-30 metres superyacht market, larger superyachts have gained market shares. Over 70 metres superyachts made up 3% of the total new-build sector between 2000 and 2009 whereas it made up 7.5% between 2010 and 2019, a more than 100% share increase. For 2021, this increased market share of superyachts over 70 metres is confirmed by shipyards’ order books: out of 377 ordered superyachts over 30 metres, 50 superyachts are over 70 metres (The Superyacht Report,

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<sup>1</sup> The article references YACHTFOLIO, the MYBA B2B platform, that lists ships with a length of 20 metres and above.

<sup>2</sup> They regard 24 metres and above as the standard definition although, in the referenced report, they define superyachts as vessels above 30 metres.

2021). The number of superyachts between 40 and 50 metres and between 50 and 70 metres also grew but at a slower pace. Superyachts of 30 to 40 metres lost market share (68.9% vs. 59.3%) (The Superyacht Report, 2020a). So, over the past few years, the average length of the worldwide superyacht fleet has increased.

### *Previous studies on the economic contribution*

Previous studies have evaluated the regional economic contribution of the boating industry (Alcover et al., 2011; Cebr, 2017; Diakomihalis and Lagos, 2011). These studies found that the marine leisure industry, as part of the marine industry, is important to the UK economy (Cebr, 2017). The marine leisure industry also plays a significant role in regions, which depend on yacht chartering like the Balearic Islands. In this region, the daily expenditure of a yacht charterer is increasing faster than that of a traditional tourist (Alcover et al., 2011).

The methodology in these reports and the results can provide valuable guidelines to estimate the impact of superyachting as a sub-industry. But, since they consider the broader boat industries, the generalisation to the superyacht industry is limited.

While the superyacht industry is rarely covered by research publications (Bruinsma and de Graaff, 2019), many professional publications have looked at the topic. The Superyacht Group have published over 200 reports on the industry. These reports cover different superyacht topics: superyacht design (The Superyacht Report, 2018); shipyards (The Superyacht Report, 2019a; The Superyacht Report, 2020b); and sustainability (The Superyacht Report, 2020a). Some of them will be referenced later.

Some academic research has stated that the superyacht industry is anti-cyclical because the consumers tend to be Ultra-High-Net-Worth Individuals (UHNWI), who are not as affected by the economic downturns (Merendino, 2013). During the 2008 financial crisis, the market reacted with a delay to the crisis because orders are taken two years ahead of delivery (Merendino, 2013). In terms of employee figures, the superyacht construction industry seemed more robust to economic downturns and to recover faster and stronger than the nation's average (Asthana et al., 2013).

Following the 2008 financial crisis, order numbers decreased from 2008 to 2009 even though the number of potential clients was expected to increase (Camper & Nicholson, 2016). However, the 2008 financial crisis led to a tighter selection process: (i) a more conservative investment approach; (ii) a stronger Euro in relation to the US Dollar that affected European shipyards; (iii) refinancing problems for the shipyards themselves; and (iv) leasing conditions have become stricter due to the crisis (Merendino, 2013).

Meanwhile, the superyacht refit business gained more than the new-build business after the economic crisis (The Superyacht Report, 2020a). Since 2013, the industry rebounded and grew at an annual compound growth rate of 12.2% (Deloitte, 2019). The number of superyachts is predicted to increase from 5,718 superyachts in 2020 to about 7,189 to 7,701 superyachts by 2030 (The Superyacht Report, 2021).

### ***Superyacht construction***

The superyacht construction market is a heterogeneous oligopoly with a few European countries hosting superyacht manufacturers (Francesetti, 2008; Merendino, 2013). German and Dutch shipyards specialise in large custom-made superyachts. They produce few yachts; but their average length is above the worldwide average. Italy has the largest market share in the superyacht industry (Deloitte, 2019; Nastasi, 2005; The Superyacht Report, 2020b). The market in general ranges from serial production to custom build superyachts.

Overall, academic research shows that the top ten companies are in Italy, the Netherlands, the UK, Germany, Denmark and France (Francesetti, 2008). Together, these top ten companies produce more than one quarter of market's volume in Europe (Francesetti, 2008). Later reports name Italy (31%), the Netherlands (13%), the UK (6%) and Germany (4%) as the largest superyacht-producing European countries (Camper & Nicholson, 2016).

23% of the worldwide superyacht production between 2010 and 2019 came from four Italian shipyards: Azimut Benetti Group, Ferretti Group, Palumbo Group and Sanlorenzo. More recent figures confirm the Italian position as a market leader (The Superyacht Report, 2020b): between 2000 and 2009, Italy produced 39.1% of all new built superyachts and between 2010 and 2019 Italy produced 38% of all new built superyachts. The Netherlands and the UK have respectively increased their share from 8.5% and 3.4% in the years 2000 to 2009 to 11.6% and 8.3% in the second decade, 2010 to 2019. Germany's share remained constant around 3%. This European market share growth came at the expense of the US, whose market share halved in the second decade of the 2000s (The Superyacht Report, 2020a).

The European refit sector is dominated by the Netherlands with 22% of all global superyacht refits done there between 2014 and 2018. France is next with a market share of 12%. The German market share is smaller, but Germany focuses on refitting the largest yachts with an average gross tonnage of 2,486 and an average length of 75 metres per refitted yacht, followed by Spain and France as refit destinations for larger superyachts. In Spain, the average overall length of a yacht which is refitted is 55 metres, in France the average overall length is 53 metres (The Superyacht Report, 2020a).

Although the market is dominated by a small number of shipyards, several companies benefit from the superyachts built in the yards. Superyacht shipyards often work together with small suppliers and manufacturers (Francessetti, 2008). For example, in Italy, those small local manufacturers have settled around the yards and support more efficient yacht construction (Francessetti, 2008).

### ***Superyacht management***

In addition to the construction and refurbishing of superyachts, the superyacht industry involves general yacht management, brokerage services – for chartering as well as for sale and purchase – and ancillary services. In general, yacht management companies provide administrative services and crewing services as well as technical and operational support (The Superyacht Report, 2019b).

In terms of charter brokerage, companies either help owners charter out their superyachts or find suitable superyachts on behalf of a charter client. Chartering makes superyachts more accessible for those who cannot own a superyacht (Francessetti, 2008). However, beside affordability, UHNWI may prefer chartering over owning a yacht for a number of other reasons.

The Asociación Española de Grandes Yates (AEGY) publishes annual reports on the economic impact of superyacht charters in the Balearics. The first of these reports has been published in 2014. To assess the economic impact of chartering, these published reports make two assumptions. First, these reports assume that 30% (25% for sailing yachts) of the charter price represents yacht expenses including fuel, berths and on-board catering (Sterringa, 2019). These expenses depend on the operation of a yacht.

Second, these reports consider an additional off-board spending of approximately 5% (Sterringa, 2019). Any additional expenditure on land benefits the local economy and specifically the companies surrounding ports and marinas. Even though the 2018 results for on- and off-board expenditures decreased by 8% compared to the year 2017, expenditure has been trending for the following year (Sterringa, 2018).

The latest edition reports a decline in total registered and active charter yachts in the Balearic from 2018 to 2019; nonetheless, charter days and all expenses in connection with yacht charter have risen over the same time. For the Balearics, on- and off-board expenditure increased by 7% in 2019 (Sterringa, 2019). Most income from yacht chartering is generated during the summer whereas maintenance and repairs generate income during the winter (Sterringa, 2019).

### ***Sale and purchase of superyachts***

The second transaction relating to superyachts is the sale and purchase process, which involves various advisors such as brokers, lawyers and surveyors. These advisors take care of commercial, legal, tax or technical aspects of the transaction.

In case of the brokers, they are paid a commission based on the purchase price. Under MYBA's Memorandum of Agreement (MoA) for Sales and Purchases, the commission is based on a sliding scale. Brokers receive a 10% commission on the first USD 10 million, 5% on the second USD 10 million and another 2.5% commission on anything above (Sowerbutts, 2017). The MYBA MoA is regarded as the industry standard for sales and purchase document (Sowerbutts, 2017). Any other advisor's fees are added on top.

The superyacht sales market can be divided into two sectors: sales of new build yachts and second-hand sales. According to research, the proportion of superyachts (above 30 metres) under construction up for sale was at a stable level of 31% in 2018 and 2019 (SuperYacht Times, 2019). The record figure of sales of new superyachts (above 30 metres) was reached in 2008 (241 yachts sold), since then sales figures have failed to surpass the 200-yacht mark (SuperYacht Times, 2019).

Regarding second-hand sales, 22% of the superyacht fleet (above 30 metres) was up for sale in 2019, an increase as compared to 2018 (SuperYacht Times, 2019). Within the first eight months of 2019, 179 superyachts (above 30 metres) have been sold, trailing the sales figures from 2018 (SuperYacht Times, 2019).

In the first six months of 2019, superyachts have been sold for a total of EUR 1.3 billion, a 55% year on year increase as compared to the sales volume of EUR 860 million in the first half of 2018 (The Superyacht Report, 2019b). However, the number of superyachts sold declined during the same period: an 8.8% decline from 113 superyachts sold in the first six months of 2018 to 103 superyachts in the same time span of 2019 (The Superyacht Report, 2019b). Demand was higher than supply for superyachts in the range of 60 to 80 metres (The Superyacht Report, 2019b).

### *Ancillary services*

Ancillary services involve ports, marinas as well as port agents. Marinas and surrounding businesses benefit from the daily expenditures of charterers (Sevinc and Güzel, 2017). Similar to the findings of Sterringa (2019), Alcover et al. (2011) established a daily average expenditure for motorboat tourists (including lengths of less than 8 metres and up to more than 24 metres) of EUR 342.60 whereas tourists sailing mono-hull boats of the same length had a daily average expenditure of EUR 112.30. They also considered the complementary (gastronomy, culture, sports activities etc.) and additional expenditures (e.g., additional accommodation on shore) of a charterer for the Balearic Islands in 2008. Since these reports consider smaller boats, their conclusion cannot be extended to superyachts; however, these figures provide an indication of other impacts to consider in our study.

The Mediterranean area is one of the world's superyacht chartering hotspots. 60% of the world's superyacht fleet is berthed in Mediterranean marinas and ports (The Superyacht Report, 2020a). A recent report on the economic contribution of the superyacht industry in Monaco revealed a contribution of EUR 800 million. The yachting industry has created 1,500 full and part time jobs. 252 of Monaco's businesses rely on yachting as its main source of income (The Superyacht Report, 2020a). Moreover, while the superyacht fleet grew by only 9% between 2015 and 2018, the coastline of the Côte d'Azur (including Monaco) registered a surge of visiting superyachts by 25% (The Superyacht Report, 2020a).

The chartering hotspots are seemingly cyclical (Sterringa, 2019). Besides the increase of visitors to France, the report mentions an increase in popularity of Southern Italy (2018) and Greece (2019) (Sterringa, 2019). Some observers also noticed recent trends towards alternative destinations for superyachts in northern Europe (Wielgaard, 2019), and a general trend for newly developed marina projects (Hadjioannou, 2020).

### *Sustainability*

The increasing importance of sustainability and eco-friendliness has had an effect on the superyacht industry. For years, countries on international and European level have encouraged sustainability in the shipping industry in general. International Conventions (e.g., the International Convention for the Prevention of Pollution from Ships (MARPOL), the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM Convention) and the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships (Hong Kong Convention)) were adopted and aim to protect the marine environment. Most of the international conventions apply to ships larger than 500 gross tonnage (GT). Consequently, these conventions only apply to the larger superyachts.

Superyachts below 500 GT are rarely covered by international conventions, but the International Maritime Organization (IMO) has further challenged the industry to address the issue of sustainability. The IMO seeks to promote an emission-free shipping industry in general (The Superyacht Reports, 2020a). As of 2021, also smaller superyachts are required to meet the MARPOL Tier III limitations on NOx emissions (Kleinitz, 2019; Sidwell, 2020).

At the European level, the European Union (EU) Ship Recycling Regulation was established against the backdrop of the Hong Kong Convention (Recital 4, 5 of the Ship Recycling Regulation). This EU regulation applies to all superyachts over 500 GT (exception in Art. 2 (2)) and which are either EU flagged or visiting European Ports since 31 December 2020 (Jackson, 2020b).

The EU Ship Recycling Regulation aims to protect the marine environment throughout the life-cycle of a ship (Art. 1). Thus, it refers to the scrapping of ships and imposes requirements on ship operations and sets out rules on the management of hazardous material (Art. 1; Jackson, 2020b). Ships covered by the scope of these regulations have to carry a certified Inventory of Hazardous Materials on board (Art. 5; Jackson, 2020b).

Industry efforts have accompanied these regulations. The Water Revolution Foundation, founded in 2018, aims to neutralise the ecological footprint of the superyacht industry. They started to implement a measuring tool to explore the environmental impact of the superyacht industry (Water Revolution Foundation, 2020).

Sevinc and Güzel (2017) discuss how sustainability and environmental awareness becomes increasingly important in yacht chartering in general and discuss what steps need to be taken to promote sustainability. While acknowledging that further development is required, different mechanisms to ensure sustainability in the yacht industry are presented. Even though “yacht chartering” is not further specified or defined, this article highlights that certification systems and other projects intend to raise environmental awareness and reduce marine pollution.

This reflects the overall development in the superyacht industry. Industry players, for example designers (Kingdon, 2019; Ratcliffe, 2021) or marinas and ports (McCabe, 2019; McCabe, 2020), are aware of the role they play in promoting sustainability in the industry. Additionally, sustainability and ecological footprint of the industry have frequently been raised not only by industry professionals but also by their clients (The Superyacht Report, 2019b; The Superyacht Report 2020a; The Superyacht Report, 2021).

### ***COVID-19***

In addition to sustainability, other issues have influenced the superyacht industry. For example, COVID-19 has affected the superyacht industry in 2020: some sale and charter prices have decreased; and some superyachts were not made available to charter (Jeffery, 2020). Anecdotally, some British owners have shifted their cruising areas this year and brought their yachts to the English Southern coast (Jeffery, 2020).

The effects of the COVID-19 pandemic have also appeared to hit the sales and brokerage market. In the first four months of 2019, a total of 63 superyachts (above 30 metres) have been sold. In the same period in 2020, the sales numbers have decreased to 54 (-14.3%) (Jackson, 2020a). The months of March and April of 2020 have seen the sharpest decline: during this time sales numbers decreased by 58.8% (Jackson, 2020a). This negative impact did, however, not last long with the market rebounding in the last eight months of 2020. A total of 490 superyachts over 24 metres have been

sold, an 18% increase as compared to 2019 (Jackson, 2021). According to an industry expert, lower prices due to the economic downturn could explain the strong reaction (Ratcliffe, 2020).

Similar to the sales and brokerage market, the new building delivery market was impacted by COVID-19 in 2020. In terms of deliveries, the year 2020 was initially expected to be one of the strongest years since the 2008 financial crisis (The Superyacht Report, 2021). Where deliveries of new building usually stay behind the superyachts ordered by 20% due to delays in production or financial difficulties, the deliveries fell short by 40% in 2020 (The Superyacht Report, 2021). The outstanding orders are expected to be delivered in 2021, but with the ongoing pandemic it remains to be seen whether deliveries will continue to fall behind schedule. Shipyards might have adapted to the situation, so the discrepancy between ordered and delivered superyachts is expected to be smaller than in 2020 (The Superyacht Report, 2021).

## **C. Main part**

### **I. Specific approach**

#### **1. Superyacht definition**

This report focuses on recreational vessels, excluding cruise or excursion ships, with an overall length of at least 24 metres. Traditionally, a distinction between ships under and over 24 metres was made in shipping-related regulations (such as Art. 5 (1) (b) International Convention on Load Lines; Art. 4 (1) (b) International Convention on Tonnage Measurement of Ships, 1969). So, to stay in line with prior research publications conducted on behalf of MYBA (Asthana et al., 2013), we decided to define a superyacht by a minimum overall length of 24 metres and to not set any limitations regarding a superyacht's propulsion.

#### **2. Industry branches**

Many parties are involved in the various stages of a superyacht's life cycle.

A superyacht, first, needs to be designed and built. Secondly, it needs to be operated and maintained. In addition, a superyacht is also chartered to clients to cover some costs. Thirdly, some superyachts are resold, and this resale needs to be managed. Finally, at the end of a life cycle a superyacht needs to be recycled.

Against the background of our industry understanding, we decided to divide the superyacht industry into three main sectors:

- The first sector is **superyacht construction**. In this sector, we focused on the design of superyachts, superyacht construction and refit as well as related suppliers, naval architects and specialised craftsman's workshops.

- The second sector is the **superyacht management** sector, which includes management and brokerage services for charters as well as sales and purchases.

Management companies provide technical and operational management. Operational services include registration and other regulatory matters, crewing and cruising coordination as well as financial matters. Technical management focuses on regular dry docking, emergencies and general technical supervision. Additionally, management companies often offer project management for construction and refit.

In principle, management services and brokerage services are to be viewed independently. Brokerage involves charter brokerage as well as sales and purchase brokerage. Below, we looked at revenue and employment figures of a company to determine the respective contribution of each sector. But we cannot separate management and brokerage services revenue figures because many companies offer both and the data does not distinguish between revenue sources. So, this report looks at this sector of the industry as one. The revenue figures for the second sector should include revenues from brokerage commissions. In section C. III. 6., we investigate sales and purchase brokerage as a source of revenue.

We did not focus on financial aspects or insurance matters in this report.

- The last sector is the **ancillary services** sector. This sector includes port and marinas as well as companies providing port related services such as port agent services. A port agent becomes relevant once the superyacht enters a port. Their services must be separated from management and brokerage services. Port agents provide bunkering services, customs services and other port related services in the respective ports.

The aforementioned three sectors reflect the direct effects of the superyacht industry. In addition to the direct contribution of the industry, the operation of a superyacht indirectly influences the local economy. To determine this indirect effect, we use the advance provisioning allowance, which is paid by charterers to cover the costs of their stay on board. This measure is connected to ancillary services as well as management and chartering brokerage services.

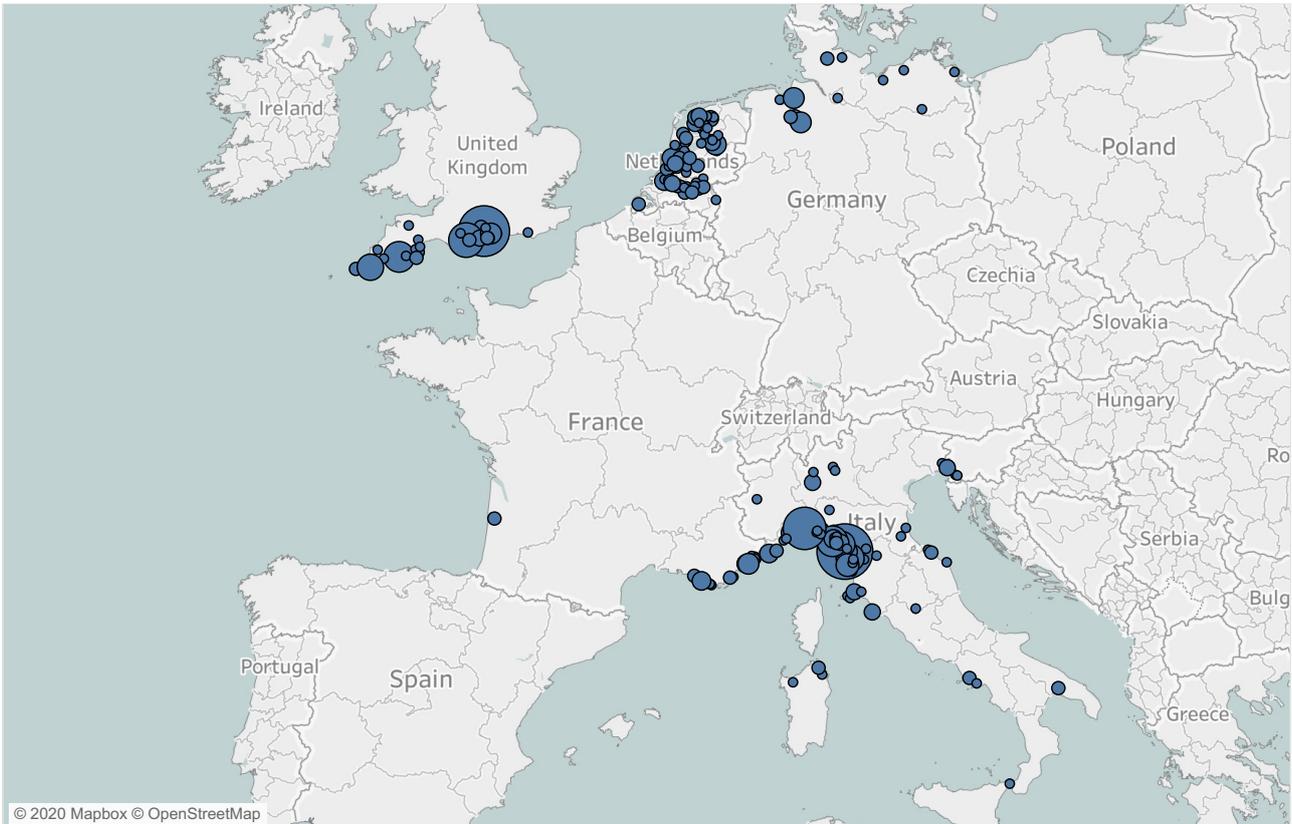
### **3. Geographical scope**

For each industry branch, we identify geographical areas with a high density of companies operating in each branch. For each of these business centres, we retrieved microeconomic data and manually cleaned these datasets to identify the companies that operate in the superyacht industry.

### *Superyacht construction*

From our literature review, we narrowed down the geographic focus for the **superyacht construction** sector to the following areas:

- the North western Italian coastal area, namely provinces Liguria and Tuscany, specifically Imperia, Savona, Genova, La Spezia, Massa, Lucca, Pisa, Livorno, Grosseto, Pistoia, Prato, Firenze, Arezzo, and Siena,
- the French Mediterranean coastline consisting of Provence-Alpes-Côte d’Azur and the Principality of Monaco (collectively referred to as “Côte d’Azur”),
- Southern UK specifically the coastline from Plymouth to Portsmouth,
- Northern and North-Western Germany and
- the Netherlands.



Map based on Longitude (generated) and Latitude (generated). Size shows # Companies. Details are shown for City and Country/Region. The data is filtered on Industry Sector, which keeps Building and Refit.

Please note that our dataset includes companies operating or reporting revenues in the respective area. Our dataset further includes ultimate parent companies outside the initial focus that have

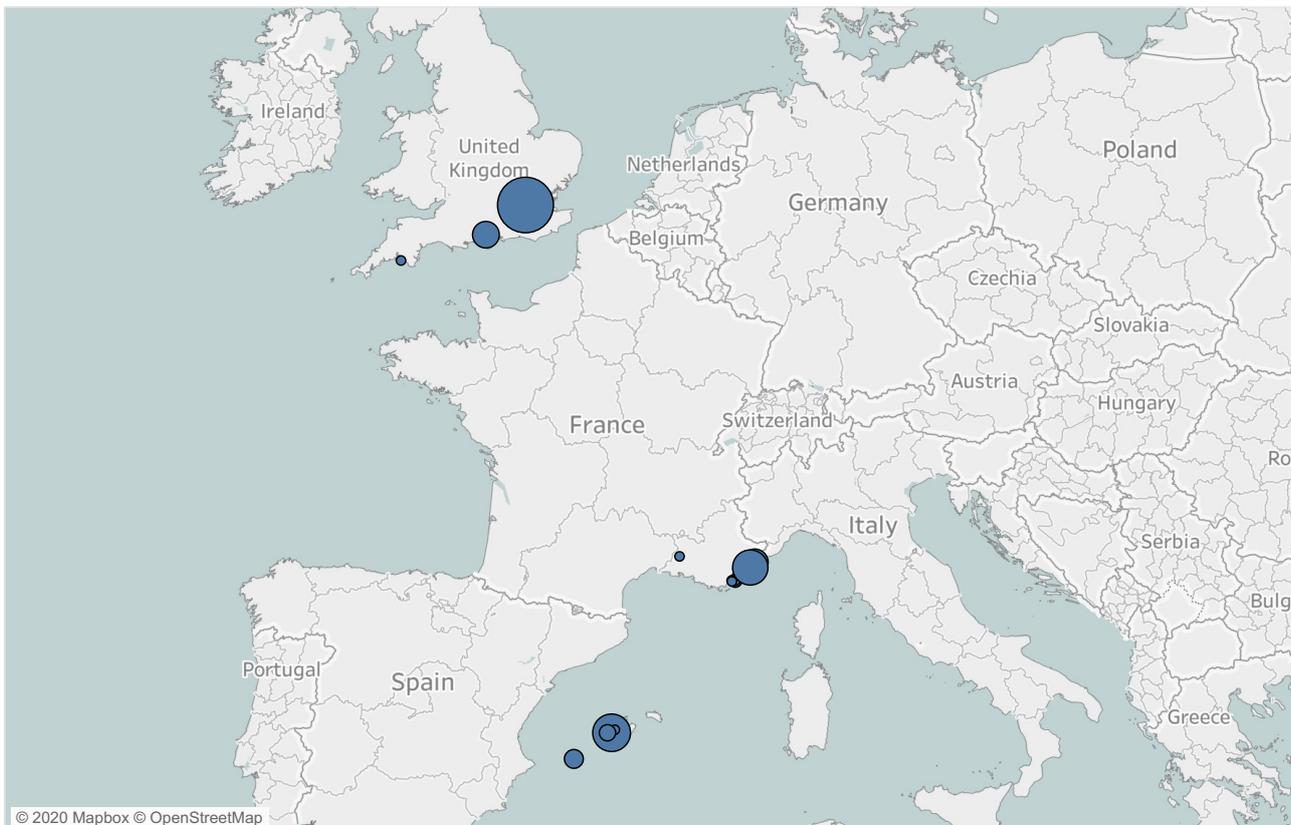
branches in the respective area. It also includes subsidiaries (more than 50% stock interest) outside of the geographical focus that have their ultimate parent company within our geographical focus. This approach ensures that no revenues are missed due to certain corporate structures. Therefore, some companies are located outside the initial focus.

### ***Superyacht management***

The **superyacht management** sector covers many services. From our interviews, we learned that most superyacht management companies in Europe are located:

- alongside the Côte d'Azur,
- in Palma, Spain and
- in the following areas of the UK: London, Southampton, the Channel Islands and the Isle of Man.

The areas were confirmed as the superyacht management geographical clusters by our company data research and from the list of European members of MYBA and of another management and brokerage association (ECPY).



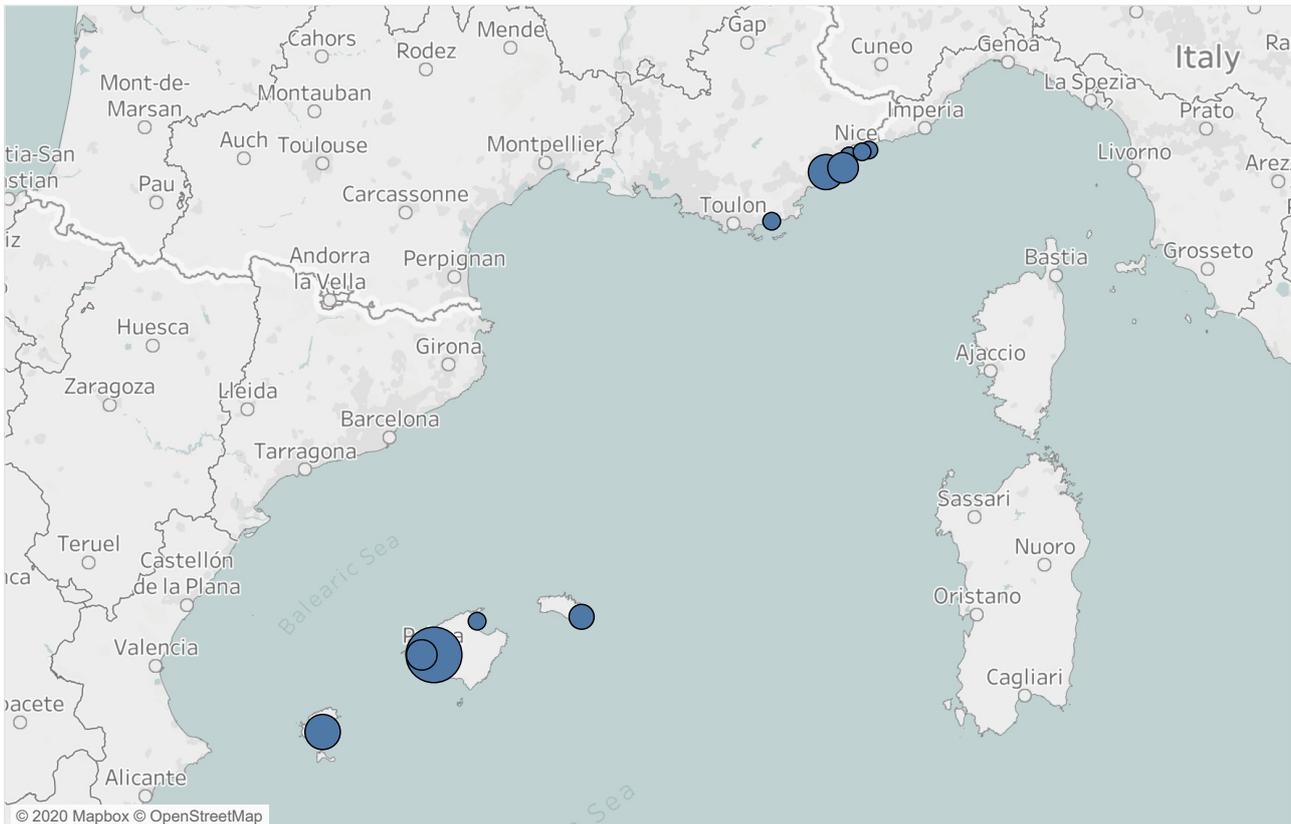
Map based on Longitude (generated) and Latitude (generated). Size shows # Companies. Details are shown for City and Country/Region. The data is filtered on Industry Sector, which keeps Management.

Again, for the aforementioned reasons, some companies are located outside the initial focus.

## *Ancillary services*

For the **ancillary services** sector, we decided to focus on certain areas of the Mediterranean Sea, namely:

- the Côte d'Azur and
- the Balearics, Spain.



The literature indicated that the Côte d'Azur is the world's largest superyacht hub. Besides that, we hoped to obtain more superyacht specific data for the Balearics to contrast it with the findings of Alcover et al. (2011).

## **II. Data collection**

To identify the impact on the local economy, we gathered company level data from D&B Hoovers. We used the European NACE code system (from the French "nomenclature statistique des activités économiques dans la Communauté européenne"). These codes are a common industry standard classification system used in Europe.

Our datasets contained more than 15,000 companies for the respective industry sectors within the aforementioned geographical scope. To identify those companies engaged in the superyacht industry,

we manually cleaned and filtered the dataset. Moreover, we used additional approaches when D&B Hoover or the NACE classification provided insufficient data.

### **1. Superyacht construction**

For the ship construction and refit industry sector, we filtered for companies that have primary or secondary activities under NACE codes 30.11 (“Building of ships and floating structures”), 30.12 (“Building of pleasure and sporting boats”) or 33.15 (“Repair and maintenance of ships and boats”).

For the UK, the NACE classification has its limits because this country uses its own nomenclature. We complemented the UK data using the NAICS classification (North American Industry Classification System) and included the NAICS code 33.66 – “Ship and Boat Building” including “Ship Building and Repairing” and “Boat Building” into our research to have a more comprehensive dataset.

For reasons of consistency, we expanded this procedure to all countries for the construction dataset. After cleaning our dataset, 585 companies remained.

### **2. Superyacht management**

The superyacht management sector is broad, and subcontracting makes this industry segment even more inaccessible. Hence, narrowing the dataset proved difficult. We conducted a reverse search: we started with a set of sample companies from the management sector in the geographical areas of interest and identified the NACE codes under which they operate. Most of the companies self-classify under different codes but two codes repeatedly appeared:

- 50.30 (“Inland passenger water transport”) and
- 52.29 (“Other transportation support”).

Based on these codes, we received a total of 6,857 management companies in Palma de Mallorca, Côte d’Azur and the respective UK areas. After cleaning, 25 companies remained (0.36% of the companies self-identifying as operating in the “inland passenger water transport” or “other transportation support” sector). To improve the dataset, we manually collected data for the members of MYBA and ECPY and ended up with 145 companies. This figure also includes companies that self-identified in our construction dataset but perform management services instead.

### **3. Ancillary services**

Data collection for the ancillary services branch of the superyacht industry also proved difficult. We again carried out a reverse search. However, we did not receive consistent codes we could use to gather comprehensive data.

Consequently, we focused on a manual search for the respective areas and complemented our dataset with companies from the construction and management datasets that were actually operating in the ancillary services sector. From these various sources, we narrowed it down to 44 companies within the geographical areas we selected.

#### **4. Limitations of the datasets**

Our dataset has limitations, but we remain convinced that the results provide a good proxy for the economic contribution of the industry.

First of all, some companies' business activities fall into one or more of the three industry sectors. If any of these companies are active in more than one of the sectors (e.g., a marina also provides for refitting facilities), we assigned the company to the business subsection which it self-identifies as its primary activity. This avoids double counting revenues but may bias one subsector against the others.

Secondly, only a few companies focus on superyachts. For example, most of the marinas are not exclusively reserved for superyachts but also offer berths to smaller boats. Since most of the companies are not publicly traded, they do not disclose financial information and we cannot apportion revenues or employees to superyacht activities. We kept all companies that work with superyachts in our datasets. This may inflate the size of the industry.

However, for the same reasons, some companies that also operate in the superyacht industry may not be included in our dataset. Our NACE search relies on self-identified primary or secondary activities. If the companies did not select the respective NACE codes, they would not be captured either. The effect of both biases is unclear. The overall information still provides a good estimation of the industry.

In the construction sector, suppliers of services or equipment cannot be attributed to either the new build or the refit subsector. As a consequence, we cannot differentiate between these two segments. As far as possible, we assessed whether a specific region rather focuses on refitting or on construction of new superyachts.

The same applies to the management sector. In principle, charter as well as sales and purchase brokerage is a separate line of business. Most management companies also offer brokerage services. So, we cannot identify brokerage from management revenue figures. As a consequence, we counted any revenues from management companies including the charter as well as sales and purchase brokerage sector for the management sector.

For the Principality of Monaco, we had difficulties gathering data for two reasons. First, the D&B Hoovers database does not cover the principality. Hence, the datasets only include companies that operate in Monaco but are incorporated elsewhere. Secondly, our manual research did not uncover

many companies nor could we identify the ultimate parent company. Consequently, Monaco may be underrepresented in our dataset. Note that we combined the Monegasque numbers with the French numbers.

### **III. Dataset description**

The scope of the reported data differs widely between countries. In almost all countries we targeted, companies reported employee figures (for a single site and for all sites), revenue and pre-tax profit (except Spain). Additionally, the UK data contains information on asset and liability figures. Across all datasets, employee and financial data are not available for all companies.

#### **1. Superyacht construction**

The datasets for the superyacht construction industry have been summarised and described by the use of descriptive statistics. The results are displayed in Annex 1. All numbers are for 2019 – unless otherwise specified.

Upon cleaning the dataset, we did not receive any results for NACE code 30.11– “Building of ships and floating structures” for Germany and the Côte d’Azur. For the UK, we did not receive any results under NACE code 33.15 (“Repair and maintenance of ships and boats”). However, we received the following results:

#### *Côte d’Azur*

Out of 229 companies included in the initial dataset, 37 companies remained after filtering for superyacht related companies. Two further companies were added from the ECPY member list. The 37 companies make up 16.2% of companies self-identifying as engaged in “Repair and maintenance of ships and boats”.

The dataset contains revenue figures for 19 of these 37 companies. Their revenues add up to EUR 113,566,000 with an average of EUR 5,977,157. The average company has 26.31 employees per single site.

The dataset confirms the strong focus on refit in the Côte d’Azur area that our literature review highlighted. Out of 39 companies, 34 focus on the refit of superyachts (87.2% of the companies). In terms of revenue and employee figures, these companies report a total of EUR 85,928,000 and 123 (single site) or 280 (all sites) employees. The revenue of refit companies makes up 75.7% of the total construction revenue in the region while employees of the refit companies only account for 36% of single site employees and 56.5% of the employees at all sites.

This refit sector operates at a higher profitability compared to the overall industry. A possible explanation for the strong refit industry in the Côte d’Azur is the role of this area as a superyacht

hotspot. Since many superyachts are berthed in this area, refits are more easily done on site than travelling to other refit facilities elsewhere in Europe.

### *Germany*

For Germany, the dataset contained 229 companies with the NACE codes 30.12 and 33.15. After checking for superyacht activities, 31 companies are engaged in the superyacht industry. This corresponds to 14.9% of companies self-identifying as engaged in “Repair and maintenance of ships and boats”.

The data contains revenue figures for 26 of these 31 companies. Revenue for these companies add up to EUR 950,479,000, resulting in an average revenue of EUR 36,557,576 per company. The average company employs 167.50 people per single site and 189.46 people on all sites.

German companies have the highest average revenue and average employee figures. A possible explanation for this observation is the fact that German companies focus on the largest new-built superyacht projects. Building a large superyacht from scratch requires more employees and is more expensive than a refit for a smaller vessel. This does, however, not explain the revenue per employee figures discussed later herein.

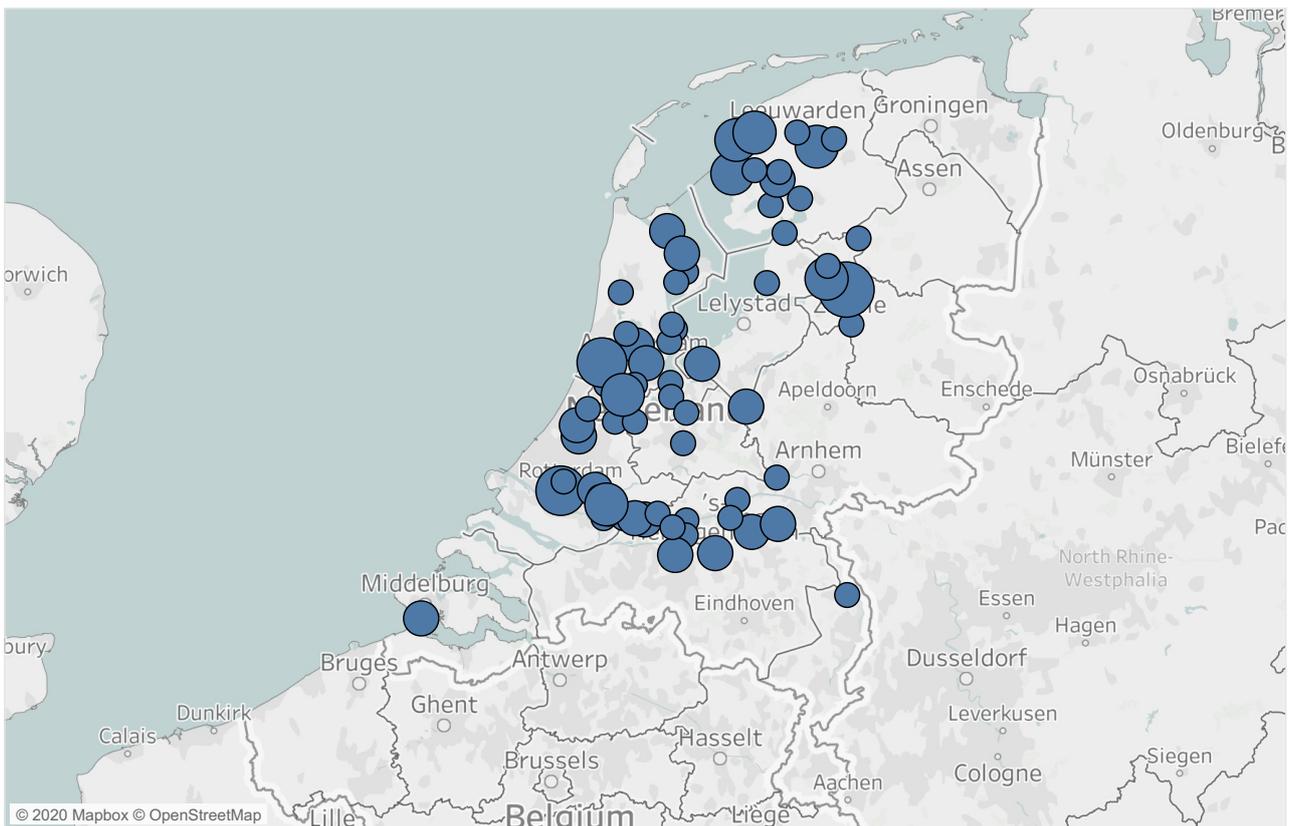
### *Italy*

The selected Italian regions have the highest number of companies operating in the superyacht construction industry amongst the studied regions. From the 1,880 companies in the initial dataset, 283 remained after checking for involvement in the superyacht industry (including five companies from the NAICS code expansion). The 278 companies in the NACE datasets correspond to 14.8% of the original companies self-reporting involvement in the construction of boats.

Out of these 283 companies, 107 focus exclusively on the refit or construction of superyachts. They employ 2,885 people on all sites and account for an aggregate revenue of EUR 2,635,944,100. The high number of companies and the large share of companies exclusively working with superyachts in a relatively small geographical area highlights the importance of this industry to the local ecosystem and Italy’s dominant position in the European superyacht construction industry.

### *Netherlands*

In contrast to the other countries included in our research, the Netherlands is the only country for which we could not identify a specific regional hotspot. Due to the geography with a lot of rivers connecting the inland waters with the sea, shipyards are not limited to locations on the shore.



Map based on Longitude (generated) and Latitude (generated). Size shows # Companies. Details are shown for City and Country/Region. The data is filtered on Industry Sector, which keeps Building and Refit, Management and Marina and Tourism. The view is filtered on Country/Region, which keeps Netherlands.

The NACE dataset included 1,476 companies, 82 (5.6% of the companies) of which are active in the superyacht industry. An additional 35 companies were identified from the NAICS dataset. These 117 companies report a total revenue of EUR 1,174,374,000, which is about EUR 1,5 billion less than the revenue of the Italian companies identified previously.

Since the Netherlands are the only country we investigated as a whole, we compared this data to the state level data from Eurostat. Eurostat reports 3,545 companies for NACE codes 30.11, 30.12 and 33.15 related to building and maintenance of ships as of 2017. Based on our dataset with 117 companies, 3.3% of these companies are operating in the superyacht subindustry. For 2017, Eurostat data shows 26,495 employees working in the overall boat building and maintenance. The companies in our dataset employ 2,584 total employees per single site and 3,274 total employees at all sites. This corresponds to 9.8% total employees per single site and 12.4% total employees at all sites respectively. The average company in the boat building and maintenance industry is smaller than the average superyacht building and refit company (7.48 employees per company compared to 33.13 (single site) and 38.98 (all sites) employees per company). The superyacht building and refit subindustry appears to be a small part of the overall boat building and maintenance in terms of numbers of companies. A closer look reveals, however, that superyachts play a greater role than indicated by the number of companies operating in this subindustry.

## *UK*

Due to the difficulties relating to the different industry classification approach in the UK, we could only gather data for 23 superyacht companies from 99 companies in the NACE dataset. Using the NAICS classification, we added 89 companies, which brings the total dataset to 112 companies. 107 of these companies provide revenue figures which add up to EUR 1,175,503,000 in total, an average revenue of EUR 10,986,009 per company.

In terms of employees, the UK companies have a low average number of 14.25 employees per single site; but, the employee figures for all sites averages at 75.59. Consequently, UK companies operate at multiple smaller sites but are relatively large companies as conglomerate.

### *Cross country comparison*

The total revenue of the Southern coast area of the UK is only slightly above the Netherlands but significantly below the total revenue of Italian companies. German companies report the second lowest total revenue but their average revenue of EUR 36,557,576 per company is the highest for all areas we studied. The Côte d'Azur has the lowest total revenue and also the lowest number of companies reporting revenue figures.

The leading role of Italy can still be observed from the data – even if we focused on different regions and the data may not consistently cover the same portion of the industry in each country. Italian companies report the highest total revenue figures compared to the other hotspot areas and even compared to the whole Dutch superyacht construction industry.

The UK has the second highest average number of employee figures for all sites, following Germany. The UK is the only country that shows a high discrepancy between single site employees and employees per all sites. Germany, the Côte d'Azur, France and the Netherland provide similar employee figures for a single site and for all sites. This indicates that – in contrast to the UK – companies in these countries have fewer branch offices.

To compare across countries, we further looked at the revenue per employee at all sites. First, we calculated the ratio of revenue and employees at all sites for each company in the dataset individually and took the average. In a second step, we excluded outliers to make the data more comparable. The results for all three industry sectors are attached as Annex 1a. Including outliers, Italy has the highest revenue per employee at EUR 378,791 per employee, more than EUR 100,000 ahead of the Côte d'Azur in second place with EUR 276,188 of revenue per employee. Without outliers, they switch places and Côte d'Azur (EUR 223,939 revenue per employee) tops Italy (EUR 208.423 revenue per employee). The figures for both regions have dropped which means that the outliers are at the upper end. A possible reason for the change of positions and the large difference in the Italian numbers

could be the industry structure in Italy, where a handful large shipyards operate with smaller businesses settling around them.

German and Dutch companies have the third and second lowest revenues per employee, although they are building the largest and most expensive yachts. One possible explanation is that building larger custom-made vessels requires more physical labour which generates less revenue. Serial production superyachts are smaller and tend to have more efficient production due to specialisation and smaller overhead costs per vessel. The role of trade unions in Germany could also negatively affect revenue per employee figures.

## **2. Superyacht management**

The descriptive statistics for the superyacht managing industry are presented in Annex 2. Again, all numbers are for 2019 – unless otherwise specified.

### *Côte d’Azur*

For the Côte d’Azur area, the NACE codes 50.30 and 52.29 delivered a total of 1,227 companies, none of which were active in the superyacht industry. We could, however, source 63 management companies from the members of MYBA and ECPY. In addition, the construction dataset contained two management companies.

The Côte d’Azur is the biggest superyacht management hotspot in our analysis. 58 of these companies reported revenue figures, adding up to EUR 76,293,700 with an average of EUR 1,315,408 per company.

The data contains employee per single site figures for 52 companies: companies have three employees per single site on average. The data further contains aggregate employee figure for all sites for 59 companies: they average 5.83 employees for all sites. Côte d’Azur has a small average employee per single site number but a slightly higher average number of employees for all sites. Companies on the Côte d’Azur tend to have several smaller offices to cover the whole area which might explain the difference between the average employee numbers for a single site and for all sites.

### *Palma*

For Palma, we obtained twelve companies from the NACE codes research. This corresponds to 2.7% of all companies included in the original NACE dataset. We complemented our dataset with 17 companies from the MYBA and ECPY member lists. These 29 companies constitute the smallest sample for any region in the management datasets. However, this area was also the smallest in our sample. 21 of the companies reported revenue figures totalling EUR 32,950,000. The average revenue figure of EUR 1,569,047 ranks above the Côte d’Azur.

## *UK*

The UK dataset consists of 8 companies from the NACE datasets, which constitutes 0.15% of all companies in the dataset with this NACE code. We included one company from the NACE construction dataset and 12 companies from the NAICS construction datasets. Additionally, 29 companies were sourced from the MYBA and ECPY member lists. With 50 companies in total, the sampled regions in the UK rank in between Palma and the Côte d'Azur.

40 of those 50 companies reported revenue figures which amount to a total revenue of EUR 108,177,000, an average revenue per company of EUR 2,704,425. Similar to this high average revenue per company, the aggregate employee figures per single site (226) and employees figures for all sites (422) are high as well. The average company has 6.46 employees per single site and 9.56 employees for all sites (35 and 44 companies reported data respectively).

### *Cross country comparison*

The revenue figures per employee are similar for companies on the Côte d'Azur and in Palma (EUR 218,680 and EUR 265,387) and get even closer when outliers are excluded (EUR 196,895 and EUR 216,369). The UK, however, is different. If outliers are included, UK management companies report the highest revenue per employee (EUR 359,263). After exclusion of the outliers, this value drops by 2/3 to EUR 118,885. This reveals that there are large outliers and that the remaining companies are smaller compared to the Côte d'Azur or Palma.

In Palma, the average figures for employees per single site (3.75) and for employees at all sites (5.00) are comparable to the ones from the Côte d'Azur area. These figures indicate a similar company structure with smaller offices at multiple sites in the area. These smaller sites could be due to both Palma and the Côte d'Azur being superyacht hotspots and these companies wanting to have offices close to their clients and their vessels.

In the UK the total revenue, employees per single site and employees for all sites are above those numbers reported for the other regions. The average revenue per company is significantly higher than in Palma and almost twice the average revenue of the companies located on the Côte d'Azur in our datasets. The average revenue of the Côte d'Azur per company is lower than in the UK but the average pre-tax profit is greater than in the UK. The Spanish companies did not report profit figures.

In terms of employee figures, the average single site in the UK has more employees than the average company on the Côte d'Azur or in Palma has in all of its sites combined. This underlines the size of the superyacht management sector in the UK. The Côte d'Azur has the smallest average employee per single site number but in terms of employees for all sites, it ranks slightly above Palma.

Companies on the Côte d’Azur tend to have several smaller offices to cover the whole area whereas superyacht management for the Balearics rather focuses on Palma.

The selected areas in the UK (London, Southampton, Channel Islands and Isle of Man) are known for their role as a business centre, superyacht construction centre or tax haven. Management firms may have their headquarters in these regions to leverage these advantages. For example, London offers connections to insurances, banks and potential customers. Regarding the observations for revenue per employee figures, a possible explanation could be that large management companies have their headquarters with relatively high revenues in the UK.

### **3. Sales and purchase brokerage**

#### ***Dataset description***

To estimate the revenues generated through sales and purchase brokerage, we analysed data from Boat International’s Market Intelligence Platform: BOAT Pro. Our dataset contains data on worldwide transactions between 1<sup>st</sup> January 2016 and 28<sup>th</sup> February 2021. It includes purchase prices based on the last listed price because the purchase prices are not disclosed. For most new build transactions, the dataset does not contain a sales price; so, they are counted with a zero price. The dataset contains transactions that involved a brokerage. Most new build superyachts are built-to-order and purchased directly from the shipyard; so, the dataset would not contain that information.

The dataset also contains information on the price development, it contains the number of price changes and the overall price change from the first listed price to the last listed price. The purchase prices were presented in different currencies, so we converted them all to EUR using the current exchange rates at the date of the respective transaction. The dataset only contained information on the month of the transaction not on the exact date, so we used monthly average exchange rates based on ECB’s historical exchange rates. The data is summarised and analysed in Annex 3.

#### ***Resale transactions and commissions***

Between 2016 and 2021, the dataset contains 2,130 transactions involving superyachts of 24 metres and above. 163 transactions involved new build superyachts: 92.4% of all transactions in the dataset involve a resale, a sale of a preowned superyacht with an aggregate sales price of more than EUR 13.5 billion. Since most of the new build transactions are counted with zero price, the dataset undervalues their proportion of the total sales price to a certain degree. Due to the insufficient data on new build transactions, we decided to focus on the resale transactions. We also excluded 62 resale transactions that did not disclose any sales price. 1,905 resale transactions remained.

As one key driver of the price of a yacht is its length, we calculated the price per metre for every superyacht in the dataset to make the prices more comparable. However, we observed no clear trend.

The highest average price per metre was observed in 2019 (EUR 177,846 per metre). In 2020 and 2021 so far, the average price per metre was below EUR 160,000 (EUR 159,474 and EUR 144,296 respectively). This may hint at a general price decrease. However, other factors, such as the age or the brand of the yachts sold can affect the price per metre. The fact that the standard deviation of the price per metre since 2016 is above the average at EUR 177,524 means that price differences are significant and that there are other price drivers apart from the length.

During 2016-2020, the record transaction number was recorded in 2017 with 396 deals. The deals added up to the highest aggregate transaction with almost EUR 3 billion. The highest average sales price (more than EUR 8 million) was recorded in 2019 – including the highest individual sales price of EUR 175 million. The transaction price varies greatly between transactions. Between 2016 and 2020, the average sales price was about EUR 7.2 million whereas the standard deviation was at about EUR 12.5 million in the same period. The average is about twice the median (EUR 7.2 million average sales price and EUR 3.7 million median sales price): many transactions are smaller, and few transactions are at the upper end.

Most superyacht sales involve one or more brokers: 708 transactions were conducted with the same broker on the sell and the buy side, 12 did not have a seller's broker, 126 did not include a buy side broker, only one transaction was made without any broker and the 1,060 (more than 55%) remaining transactions were made with different brokers on the sellers' and the buyers' side.

The commission is based on the sales price and is divided between the brokers involved on an individual basis, usually adding up to the same percentage of commission. For the purpose of our commission estimation, we assumed that every transaction in our dataset was based on the sliding scale of MYBA's MoA (as described in the literature review above). Since the MYBA sliding scale is based on USD prices, all our calculations were performed on a USD basis and converted into EUR afterwards.

Based on this sliding scale, the highest total commission was earned in 2017 and the highest average commission per deal was achieved in 2019. The average commission is between 7% and 8% of the deal. Although 2019 had the highest average commission payment, only 7.21% of the total transaction was paid out as commission, the lowest value in our dataset. 2020 was the best year with commission payments making up for 7.95% of the total transaction because of the greater percentage of smaller transactions.

### **Impact of COVID-19**

To assess the impact of the pandemic, we assumed that the impact started in March 2020. In Table 3 of Annex 3, we compare the monthly number of transactions, sales prices and commissions

from the twelve months period before the pandemic (March 2019 to February 2020 – pre COVID-19 period) and the twelve months since the pandemic started (March 2020 to February 2021 – COVID-19 period).

The total number of transactions in the COVID-19 period (376 transactions) was 3.01% higher than in the pre-COVID-19 period (365 transactions). The total transaction revenue shrank by 18,97% while commission payments went down by 9.41%. Looking at the monthly data, the transaction numbers decreased at the beginning of the pandemic. During the first five months of the pandemic (March to July 2020), the monthly transaction number was down by between 15% and almost 60% (April 2020) as compared with the same months in 2019. The number of transactions in June 2020 matched the numbers of the previous year. The same is true for the transaction revenue and commissions: in April 2020 the total transaction revenue was down by more than 80% in comparison with April 2019 (commissions were down by more than 75%). Even in June 2020, almost 30% less transaction revenue was reported, resulting in a 17% decrease in commission payments.

In the remaining months of 2020, the market bounced back. Each month until December 2020 (including) was better than the respective month in the pre-COVID-19 period in terms of numbers of transactions. The month-on-month comparison shows an average 53% increase in monthly transactions as compared to 2019: August 2019 vs August 2020 shows an 80% increase. In this month, there was almost twice as much sales revenue and commissions were up by almost 175% compared to August 2019. In December 2020, however, the increase in transactions could not be translated into higher sales revenues and commissions: they were down by almost 13% in sales revenues and almost 1% commission payments compared to December 2019.

Based on the data, the market for superyacht was positively affected by the pandemic. Despite the economic downturn, the number of transactions in the COVID-19 period were higher than in pre-COVID-19 period. Some scholars have argued that COVID created favourable conditions for buyers, especially lower prices. The data shows that prices are reduced more frequently. In the pre-COVID-19 period reductions occurred in 53% of the 365 transactions while during COVID-19, this percentage rose to 62%. If a superyacht was reduced in the pre-COVID-19 period, it was reduced 2.33 times on average. In the COVID-19 period, this number rose to 2.66 price reductions.

However, the average reduction did not change notably: in both periods, it stayed around 21%. In the dataset we could identify fifteen superyachts that were sold twice, once in the pre-COVID-19 period and once during the COVID-19 period. Ten times, the sales price after the beginning of the pandemic was lower than before but five times a price increase could be observed.

#### 4. Ancillary services

The datasets for the ancillary services industry have been described in Annex 4. All numbers are for 2019 – unless otherwise specified.

##### *Balearics*

The dataset for the Balearic Islands contains 27 companies. 15 companies were researched manually, and the others came from other datasets and from the MYBA member list.

Twelve companies in the dataset reported employees per single site figures. Employees in the region add up to 225 employees per single site with an average of 18.75 employees per single site. The average number of employees at all site is 18.24 (total of 310 employees at all sites for 17 companies). The employee reporting in the dataset is limited: some companies only report single site employee figures and vice versa.

In terms of revenue, 18 companies reported a total of EUR 79,124,000 and with an average of EUR 4,395,777. The standard deviation for these numbers is high (EUR 5,351,973). This shows that the companies differ more than in other areas/sectors. The median is EUR 2,450,000. This shows that most companies are small with a few large companies as outliers.

Similarly, the standard deviation for employees per single site and employees at all sites is larger than in other areas/sectors. This further supports that companies in the Balearics ancillary services sector differ from one another.

##### *Côte d'Azur*

The dataset for the Côte d'Azur contains 17 companies. Only two of the companies stem from the NACE dataset (50.30 and 52.29). The remaining 15 companies were sourced from a manual search (8) and from the construction dataset (7).

Even though the total numbers for revenue, employees per single site and employees for all sites are also lower than for the Balearics, the average figures are similar to the Balearics: EUR 4,225,750 average revenue, 17.89 employees per single site and 18.31 employees at all sites per average. The companies on the Côte d'Azur show also some heterogeneity: the standard deviations for revenue and employees per single site remain high.

Companies on the Côte d'Azur work in many areas: they include companies which also do construction or refitting as their primary or secondary activity. Specially, the seven marinas in the dataset also provide construction or refitting services on their premises.

### *Cross country comparison*

The ancillary services industry in the Balearic area is similar to the one on the Côte d'Azur. The main difference is that all companies in the Côte d'Azur dataset operate a marina whereas, in the Balearics, a minority of companies offer ancillary services only. Companies in the Balearics and on the Côte d'Azur have similar revenue per employee when excluding outliers (EUR 215,413 vs EUR 220,987). It is notable that the ancillary services companies on the Côte d'Azur are the only companies that had no outlier amongst them in terms of revenue per employee which means that this regional industry subsector is very homogenous. The Balearics, however, have some large outliers which results in a higher revenue per employee when including outliers (EUR 521,904).

#### **5. Advance provisioning allowance**

Despite its direct effect, the superyacht industry also indirectly impacts local economies. One example is the chartering industry. Revenues from charter brokerage were counted towards the management sector. These revenues are only one economic effect of chartering. Further, superyacht chartering impacts local economies indirectly by on- and off-board spending. To estimate this economic impact, we surveyed market participants on expenditure of superyacht charterers and also interviewed some of them. However, this measurement only covers part of the indirect effect of the overall superyacht industry. The indirect effect of the superyacht industry goes beyond what can be covered by this part of the report and the overall report.

#### *APA in general*

We identified the advance provisioning allowance (APA) as the crucial factor to estimate local spending of superyacht charterers. Hence, the questionnaire we sent out (attached hereto as Annex 5) focuses on the APA. The questionnaire was sent out to various MYBA members that are engaged in the superyacht chartering business, 13 of which responded and provided their insights. A summary and analysis of the survey results can be found in Annex 6. The APA is calculated as a percentage of the charter rate and is paid in advance in addition to the charter expenses. The APA covers various charter guests' expenses, including fuel (for the superyacht and for tenders), catering, berthing, excursions and transportation. The APA is almost entirely spent locally, part of it is also given to the crew members as tips.

Crew members play a significant role in the operation of a yacht. They also affect the local indirect effect of the superyacht industry as their off-board expenditure also feeds into the local economy.

Similarly, superyacht charterers tend to spend on shore beyond the APA amount. Pursuant to our literature review, this additional off-board expenditure is estimated to be 5% of the charter fees. We have not been able to verify this estimation. Private expenses are difficult to measure and vary

between charterers and destinations. This private spending especially benefits local business such as grocery dealers, boutiques, restaurants, clubs and service providers (e.g., yoga instructors, masseurs). In addition, VAT needs to be paid on charter fees. Although taxes have an economic impact, these effects are not covered by this report.

Based on our survey, charterers are charged an APA between 20% and 35% of the charter fee, mainly depending on the consumption of the yacht. Based on the high and low range estimation, we decided to work with three estimations for the APA: the average of the high range (31.5%), the average of the low range (26.5%) and the average between both of them (29%).

### ***Charter market data***

In addition to the above-mentioned survey, we analysed data from MYBA's commercial yacht chartering platform YACHTFOLIO. The central agents representing the owners advertise their yachts on YACHTFOLIO and retail charter brokers can book charters according to their clients' wishes.

YACHTFOLIO includes more than 1,800 yachts. Our two datasets include all charter trips involving yachts of 24 metres and above that started between 1<sup>st</sup> December 2018 and 31<sup>st</sup> November 2019 (2018/2019 season) and between 1<sup>st</sup> December 2019 and 31<sup>st</sup> November 2020 (2019/2020 season). Besides an estimation of local spending through APA, these datasets also allow for an estimation of the impact of the COVID-19 pandemic. In the 2018/2019 season 5,620 charter trips on 903 different superyachts above 24 metres have been booked via YACHTFOLIO. The average charter duration was just below one week (6.91 days) and 46,206 charter days in total were booked. For the 2019/2020 season, the number of charter trips decreased by 18.6% to 4,576 charter trips. At the same time, the trips involved more superyachts: during the 2019/2020 season, 1,104 different superyachts (above 24 metres) were chartered, an increase of 22.3% in superyachts involved. Also, the average length of a stay on board rose to 8.71 days (+26.1%). During the 2019/2020 season, a total of 40,562 charter days were booked, this corresponds to a drop of 5,644 days or 12.2% as compared to the 2018/2019 season.

During the 2018/2019 season, the 903 yachts above 24 metres were chartered out for 51 days on average (about seven and a half weeks). This average occupancy is half a week shy of the information gathered through our survey.

During the 2019/2020 season, on average, each of the 1,104 superyachts booked in the last twelve months was chartered out for about 37 days (a little more than five weeks). This is about 35% below the average occupancy our survey reported (a little more than eight weeks). This drop is probably caused by travel restrictions and the economic downturn due to the pandemic.

This observation contradicts the assumption that owners have not put their yachts up for charter in 2020 (Jeffery, 2020). During the 2018/2019 season, 1,095 different yachts (including those below 24 metres) have been chartered out. This results in 39.2% of the YACHTFOLIO fleet not being chartered out. In contrast, during the 2019/2020 season, 1,345 different yachts (including those below 24 metres) have been booked. One quarter (25.3%) of the yachts in the portfolio have not been chartered out. The pandemic did not lead to owners withdraw their yachts from the charter market; but it led to fewer trips being taken.

### ***Economic contribution of the APA***

YACHTFOLIO shows a high and a low value for the weekly charter fee. The average weekly fee for all stays was: (1) between EUR 116,302 (low fee) and EUR 129,184 (high fee) during the 2018/2019 season; and (2) EUR 113,573 (low fee) and EUR 124,182 (high fee) during the 2019/2020 season. Our survey reported an average weekly fee of EUR 137,399. One reason for this deviation could be that the participants reported their posted prices and that the actual weekly charter fee is negotiated between the central agent and the retail broker and therefore lower than the posted price.

The 5,620 charter trips in the 2018/2019 resulted in charter fees in an amount between EUR 930,655,150 and EUR 1,022,601,330. Based on these numbers, the following table shows estimations for the total APA amount spent in the 2018/2019 season:

<b>Estimations of total APA collected in 2018/2019 season</b>			
<b>APA</b>	<b>low APA estimation (26.54%)</b>	<b>average APA estimation (29.04%)</b>	<b>high APA estimation (31.54%)</b>
<b>charter fee</b>			
low fee based (930,655,150.04 €)	246,981,559.05 €	270,247,937.80 €	293,514,316.55 €
average fee based (976,628,240.17 €)	259,182,109.89 €	283,597,815.90 €	308,013,521.90 €
high fee based (1,022,601,330.31 €)	271,382,660.74 €	296,947,693.99 €	322,512,727.25 €

Based on the high fee and low fee figures, the total charter fee paid for the 4,576 charter trips in the 2019/2020 season is between EUR 872,764,572 and EUR 954,614,556. The following table shows different estimations for the aggregate APA based on these figures:

<b>Estimations of total APA collected in 2019/2020 season</b>			
APA charter fee	low APA estimation (26.54%)	average APA estimation (29.04%)	high APA estimation (31.54%)
low fee based (872,764,572.13 €)	231,618,290.30 €	253,437,404.60 €	275,256,518.90 €
average fee based (913,689,564.51 €)	242,479,153.66 €	265,321,392.77 €	288,163,631.88 €
high fee based (954,614,556.88 €)	253,340,017.02 €	277,205,380.94 €	301,070,744.86 €

Comparing the charter fees paid in the 2018/2019 and the 2019/2020 season, a drop can be observed. Based on the low, average and high fee estimation, the total charter amount decreased by about EUR 58 million to EUR 68 million (-6.4%). A comparison between the different charter fee amounts and APA estimations combinations from the tables above shows that the collected APA sums declined by EUR 18,276,423 on average.

The datasets include worldwide charters. From our interviews, we have learned that about 80% of the global charter fleet spends the high season in the Mediterranean Sea. Correspondingly, the majority of the APA is likely spent in the region.

Our interviewees reported that most superyachts up for charter are registered as commercial yachts. In order to maintain this status, the ultimate owners need to charter their own boats and pay an APA for their stays on board as well. It is likely that these stays do not involve brokerage services and are, consequently, not reported in YACHTFOLIO.

Our interviewees estimated that this owner occupancy is about four to six weeks per year. Consequently, the actual amount of APA collected for charter trips will be higher than our estimations above. Accordingly, the indirect effect of the superyacht chartering industry is even higher but also difficult to assess.

## **6. Cross industry sector comparison**

So far, our report has investigated the industry sectors as separate branches. In this last part, average figures from the different sectors shall be compared based on the data we gathered.

The construction sector employs the most individuals per company (at all sites and per single site), followed by the ancillary services sector and the management sector, in that order. Construction and refit companies have significantly higher average revenue figures than companies in the ancillary services (4x) or management (9x) sector (EUR 16,810,654 vs EUR 4,310,764 vs EUR 1,862,960).

Regarding the revenue per employee figures for the respective industry sectors, the results are different than for average revenue. In the management (with the exception of the UK) and in the ancillary services sectors, companies report similar numbers across all geographic regions. The UK revenue per employee figures for the constructions as well as for the management sector share the same characteristic: excluding outliers leads to a significant drop of revenue per employee (56% in the construction sector and 67% in the management sector). The UK superyacht industry involves more outliers than in other countries we observed.

Revenue per employee figures in the construction sector differ more across countries than in the management and ancillary services sector. This is especially true, when excluding outliers. The highest and lowest revenue per employee can be found in the construction sector (EUR 223,939 revenue per employee for the Côte d'Azur and EUR 92,193 in the UK). This observation of a heterogeneous superyacht construction market is in line with the findings from our literature review (Francesetti, 2008; Merendino, 2013).

#### **D. Conclusion and outlook**

The literature review shows a greater market share for bigger yachts in the global superyacht fleet. In addition, the supply of bigger yachts could not match the demand. This development could also have affected the charter market. Research observed a decrease of chartered yachts in the Balearics while charter expenses increased. One explanation might be that the charter fee must have gone up, probably because larger and more expensive yachts have become more popular. Additionally, the aforementioned development may hint at a shift towards even more luxurious, exclusive chartering.

Greater demand for large superyachts could benefit the dominant German and Dutch shipyards focusing on these types of yachts. We observed a specialisation in niches in the segmented superyacht construction industry. Moreover, we found that this industry branch appears to be the largest of the three branches: the superyacht industry in the regions we investigated employs more than 25,000 people across 774 companies and generating a revenue of at least EUR 6,398,337,800. The superyacht construction industry accounts for the largest portion of employees (94% of employees in our dataset) and generates a major part of all revenues (95% of reported revenues in our dataset).

However, this observation can be linked to data bias. First, the manufacturing can be more easily measured than service sectors. We struggled to identify companies in the management and ancillary services industries because they do not fit in any NACE code. Second, construction and refit companies do not specialise as much as the management and ancillary services companies we identified. Thus, the employee and revenue numbers may capture non-superyacht activities.

We, however, still expect the construction sector to dominate these numbers. This observation mirrors the findings of the previous report conducted on behalf of MYBA (Asthana et al., 2013) that the glamorous superyacht industry also includes a lot of physical work. Thereby, superyacht construction and refitting positively affects local economies.

Despite this dominant position, also the other two industry segments (management and ancillary services) contribute to local economies. Superyacht chartering fuels local businesses by – amongst others – charterers' off-board expenses. With an amount of up to EUR 301,070,744 being spent through the APA in the 2019/2020 season, superyacht chartering supports local economies.

The superyacht fleet composition is changing but so may the destinations. New destinations are trying to establish themselves in the market. For example, the port of Amsterdam is part of a campaign advertising the Northern Route as an alternative chartering destination in Europe (Jackson, 2018; Cullen, 2019). The Netherlands is known for large construction projects and their refit services: the port of Amsterdam provides three superyacht yards and further maintenance facilities (Prins-Droog, 2020). It may attempt to leverage these facilities into the ancillary services industry. There is also growing competition from inside the Mediterranean Area: The Larnaca marina project offers new berthing opportunities in Cyprus (Hadjioannou, 2020).

Apart from these changes, COVID-19 has not left the superyacht industry untouched. Due to long lead periods in the order process of superyachts, the effects of the pandemic on the construction industry cannot yet be observed. The tourism industry, however, is impacted without delay. Our research shows that the charter market shrank in almost any respect. However, the superyacht charter market appears to be more robust in comparison to the general tourism industry. In March 2020, the number of international arrivals was down by 57% and models projected even greater drops for the rest of 2020 (UNWTO, 2020). A similar conclusion can be drawn from the sale and purchase market: the number of transactions in 2020 does not differ from previous years. Throughout a period of an overall economic downturn, the economic activities in the superyacht industry remain relatively constant and provide a source for optimism.

## Annex 1 – Descriptive statistics (construction sector)

Côte d’Azur (France)							
	Number of Observations <sup>3</sup>	Total	Mean	Median	Standard Deviation	Minimum	Maximum
Employees (Single Site)	13	342	26.31	6	57.01	1	210
Employees (All Sites)	19	496	26.11	6	55.53	1	210
Revenue (EUR)	19	113,566,000.00	5,977,157.89	680,000.00	12,139,503.24	50,000.00	49,000,000.00
Pre-Tax Profit (EUR)	13	- 4,546,000.00	- 349,692.31	2,000.00	2,061,125.68	- 6,500,000.00	2,500,000.00
Germany							
	Number of Observations	Total	Mean	Median	Standard Deviation	Minimum	Maximum
Employees (Single Site)	20	3,350	167.50	38	238.12	1	770
Employees (All Sites)	28	5,305	189.46	65	273.41	1	1,000
Revenue (EUR)	26	950,497,000.00	36,557,576.92	11,000,000.00	55,417,694.95	114,000.00	198,000,000.00
Pre-Tax Profit (EUR)	5	200,000.00	40,000.00	2,500,000.00	3,682,797.85	- 4,700,000.00	2,800,000.00
Italy							
	Number of Observations	Total	Mean	Median	Standard Deviation	Minimum	Maximum
Employees (Single Site)	18	607	33.72	18	61.70	3	273
Employees (All Sites)	138	6,392	46.32	14	156.83	1	1,400
Revenue (EUR)	137	2,635,944,100.00	19,240,467.88	2,700,000.00	82,320,121.88	8,000.00	775,000,000.00
Pre-Tax Profit (EUR)	124	81,328,000.00	655,870.97	78,500.00	3,958,502.65	- 13,000,000.00	37,000,000.00
Netherlands							
	Number of Observations	Total	Mean	Median	Standard Deviation	Minimum	Maximum
Employees (Single Site)	78	2,584	33.13	9	71.63	1	342
Employees (All Sites)	84	3,274	38.98	10	81.68	1	347
Revenue (EUR)	104	1,174,374,000.00	11,292,057.69	683,500.00	51,745,485.70	38,000.00	365,000,000.00
Pre-Tax Profit (EUR)	6	25,772,000.00	4,295,333.33	2,000,000.00	6,391,472.03	252,000.00	17,000,000.00
UK							
	Number of Observations	Total	Mean	Median	Standard Deviation	Minimum	Maximum
Employees (Single Site)	97	1,382	14.25	2	52.08	1	460
Employees (All Sites)	108	8,164	75.59	3	372.73	1	3,000
Revenue (EUR)	107	1,175,503,000.00	10,986,009.35	332,000.00	51,813,790.47	38,000.00	391,000,000.00
Pre-Tax Profit (EUR)	13	39,601,100.00	3,046,238.46	387,000.00	8,207,170.45	- 10,000,000.00	24,000,000.00
Assets (EUR)	79	801,783,322.00	10,149,155.97	256,000.00	42,067,036.55	111.00	283,000,000.00
Liabilities (EUR)	74	645,905,356.00	8,728,450.76	235,000.00	39,483,805.86	456.00	293,000,000.00

<sup>3</sup> Note that the numbers of observations differ because the dataset does not contain information for each company/variable combination.

## Annex 1a – Revenue per employee (all sectors)

	Revenue per employee					
	Construction		Management		Ancillary Services	
	incl. outliers	excl. outliers	incl. outliers	excl. outliers	incl. outliers	excl. outliers
<b>Côte d’Azur (France)</b>	276,188.13 €	223,939.32 €	218,680.06 €	196,895.07 €	220,987.97 €	220,987.97 €
<b>Germany</b>	243,060.50 €	145,217.20 €				
<b>Italy</b>	378,791.65 €	208,423.82 €				
<b>Netherlands</b>	197,274.44 €	108,953.43 €				
<b>Balearics/Palma (Spain)</b>			265,397.19 €	216,369.90 €	521,904.92 €	215,413.81 €
<b>UK</b>	208,679.13 €	92,193.05 €	359,263.98 €	118,885.90 €		

## Annex 2 – Descriptive statistics (management sector)

<b>Côte d’Azur (France)</b>							
	Number of Observations	Total	Mean	Median	Standard Deviation	Minimum	Maximum
Employees (Single Site)	52	156	3.00	2	2.55	1	10
Employees (All Sites)	59	344	5.83	3	12.82	1	93
Revenue (EUR)	58	76,293,700.00	1,315,408.62	425,000.00	3,020,909.92	700.00	16,000,000.00
Pre-Tax Profit (EUR)	34	3,443,538.00	101,280.53	44,500.00	158,771.15	- 186,000.00	548,000.00
<b>UK</b>							
	Number of Observations	Total	Mean	Median	Standard Deviation	Minimum	Maximum
Employees (Single Site)	35	226	6.46	2	10.56	1	50
Employees (All Sites)	44	422	9.59	2	17.40	1	86
Revenue (EUR)	40	108,177,000.00	2,704,425.00	456,500.00	6,612,366.51	13,000.00	34,000,000.00
Pre-Tax Profit (EUR)	9	494,000.00	54,888.89	136,000.00	1,079,952.94	- 1,800,000.00	2,100,000.00
Assets (EUR)	25	85,842,311.00	3,433,692.44	708,000.00	9,394,307.34	100.00	46,000,000.00
Liabilities (EUR)	23	51,778,200.00	2,251,226.09	552,000.00	4,725,429.74	2,200.00	21,000,000.00
<b>Palma (Spain)</b>							
	Number of Observations	Total	Mean	Median	Standard Deviation	Minimum	Maximum
Employees (Single Site)	16	60	3.75	3	3.21	1	12
Employees (All Sites)	20	100	5.00	3	5.17	1	21
Revenue (EUR)	21	32,950,000.00	1,569,047.62	698,000.00	3,274,009.89	50,000.00	15,000,000.00

## Annex 3 – Summary and analysis: sales data

Table 1

	Number of transactions	Transaction revenue (EUR)	Commissions (EUR)	Average price per metre (EUR)
<b>Total</b>	<b>1,905</b>	<b>13,657,920,776.45</b>	<b>1,032,395,078.73</b>	<b>163,214.78</b>
<b>2021</b>	<b>64</b>	<b>375,676,915.44</b>	<b>31,468,758.52</b>	<b>144,296.81</b>
Feb 21	34	208,375,752.99	17,096,957.29	148,259.23
Jan 21	30	167,301,162.45	14,371,801.24	140,334.40
<b>2020</b>	<b>373</b>	<b>2,504,988,724.04</b>	<b>199,039,729.05</b>	<b>159,474.43</b>
Dec 20	53	403,880,114.31	29,318,256.77	177,497.75
Nov 20	39	258,031,407.91	21,909,277.71	164,185.52
Oct 20	34	249,149,527.81	20,430,959.08	175,527.65
Sep 20	38	201,483,210.51	17,623,371.02	146,001.10
Aug 20	31	318,092,451.30	20,948,760.00	214,319.89
Jul 20	34	168,075,746.74	15,688,142.23	134,338.75
Jun 20	31	145,198,387.61	13,675,196.10	130,693.11
May 20	22	190,218,931.52	12,976,903.71	185,112.29
Apr 20	12	39,855,382.22	3,956,231.84	102,664.41
Mar 20	18	93,984,459.35	8,628,221.94	158,807.49
Feb 20	33	304,594,277.53	21,469,923.64	203,457.75
Jan 20	28	132,424,827.25	12,414,485.01	121,087.50
<b>2019</b>	<b>352</b>	<b>2,871,084,915.05</b>	<b>206,973,155.26</b>	<b>177,846.66</b>
Dec 19	38	462,691,421.86	29,593,880.43	253,482.51
Nov 19	29	192,734,508.68	16,639,666.49	175,298.51
Oct 19	22	140,869,286.32	11,534,779.21	163,826.00
Sep 19	24	130,477,932.14	11,418,965.78	135,750.85
Aug 19	17	107,204,102.44	7,622,700.21	137,662.07
Jul 19	40	342,695,705.03	24,188,515.95	183,922.15
Jun 19	31	204,022,079.13	16,447,501.72	161,462.71
May 19	51	504,830,442.83	33,165,597.67	211,401.61
Apr 19	29	217,062,033.80	16,456,629.34	179,167.72
Mar 19	23	276,159,954.89	16,117,595.74	226,854.11
Feb 19	24	179,086,057.00	13,299,016.71	173,147.22
Jan 19	24	113,251,390.94	10,488,306.02	132,184.48
<b>2018</b>	<b>385</b>	<b>2,584,631,881.07</b>	<b>192,356,154.43</b>	<b>158,776.10</b>
Dec 18	35	244,377,024.02	17,117,078.97	157,739.13
Nov 18	28	335,103,557.16	20,094,615.17	222,845.28
Oct 18	21	199,600,570.54	11,989,021.98	188,617.64
Sep 18	32	241,674,834.20	17,638,312.25	177,803.50
Aug 18	26	196,178,123.39	14,270,064.90	168,166.27
Jul 18	39	271,820,218.98	19,125,936.32	156,383.40
Jun 18	27	118,886,165.20	10,106,747.09	113,412.81
May 18	49	226,640,850.41	20,728,673.59	128,371.08
Apr 18	27	115,523,586.96	10,536,363.58	122,719.63
Mar 18	34	248,784,617.48	18,034,970.99	173,986.17

	<b>Number of transactions</b>	<b>Transaction revenue (EUR)</b>	<b>Commissions (EUR)</b>	<b>Average price per metre (EUR)</b>
Feb 18	36	204,283,959.77	17,062,685.83	143,979.54
Jan 18	31	181,758,372.96	15,651,683.77	151,288.70
<b>2017</b>	<b>396</b>	<b>2,938,564,892.18</b>	<b>219,184,888.19</b>	<b>169,842.45</b>
Dec 17	40	390,922,681.30	25,853,865.28	204,487.49
Nov 17	38	218,569,187.08	19,363,669.85	156,511.95
Oct 17	23	299,946,674.33	15,625,928.41	204,700.07
Sep 17	17	130,603,108.25	9,827,185.38	177,527.69
Aug 17	21	89,335,161.29	8,597,416.11	113,173.58
Jul 17	50	316,729,334.79	26,368,515.91	158,559.56
Jun 17	31	213,630,467.94	16,417,532.16	170,179.99
May 17	57	411,199,484.91	31,244,523.49	170,013.85
Apr 17	26	145,931,888.43	13,750,303.24	161,349.70
Mar 17	32	337,738,256.90	20,265,978.09	197,403.61
Feb 17	35	199,959,990.94	18,166,850.07	160,349.20
Jan 17	26	183,998,656.02	13,703,120.20	163,852.65
<b>2016</b>	<b>335</b>	<b>2,382,973,448.66</b>	<b>183,372,393.27</b>	<b>169,052.20</b>
Dec 16	35	278,495,750.81	20,125,179.06	182,889.91
Nov 16	23	245,020,584.40	16,721,379.31	230,419.97
Oct 16	16	89,817,691.94	8,643,807.74	157,463.10
Sep 16	20	129,556,245.07	10,671,710.47	144,436.62
Aug 16	29	134,411,662.90	12,883,777.79	134,236.57
Jul 16	23	199,145,300.18	14,637,742.95	196,577.42
Jun 16	37	348,416,785.05	23,821,001.27	202,705.11
May 16	42	247,052,311.32	19,750,420.43	143,282.10
Apr 16	44	310,100,990.40	22,140,890.46	161,135.41
Mar 16	30	178,825,738.24	14,992,420.74	153,388.00
Feb 16	18	84,939,668.45	7,995,513.37	134,084.54
Jan 16	18	137,190,719.92	10,988,549.68	188,007.70

**Table 2**

Year	Number of observations	Transaction revenue (EUR)					
		Sum	Average	Median	Standard Deviation	Minimum	Maximum
2020	373	2,504,988,724.04	6,730,749.26	3,837,500.00	9,846,423.87	418,053.90	92,500,000.00
2019	352	2,871,084,915.05	8,153,799.47	3,950,000.00	15,928,880.28	150,000.00	175,000,000.00
2018	385	2,584,631,881.07	6,703,890.47	3,200,000.00	12,189,176.30	403,525.65	129,000,000.00
2017	396	2,938,564,892.18	7,424,984.43	3,760,592.17	14,271,848.03	99,500.00	165,933,677.42
2016	335	2,382,973,448.66	7,102,018.08	3,750,142.74	10,348,321.25	350,000.00	79,500,000.00
Year	Number of observations	Commissions (EUR)					
		Sum	Average	Median	Standard Deviation	Minimum	Maximum
2020	373	199,039,729.05	534,743.90	383,750.00	461,307.62	41,805.39	3,157,845.42
2019	352	206,973,155.26	587,722.74	395,000.00	602,301.08	15,000.00	5,268,972.03
2018	385	192,356,154.43	498,682.47	320,000.00	510,960.01	40,352.57	4,104,783.46
2017	396	219,184,888.19	553,933.79	376,059.22	560,058.23	9,950.00	4,999,253.92
2016	335	183,372,393.27	546,246.73	375,014.27	496,576.29	35,000.00	2,913,388.78

**Table 3**

	<b>Number of transactions</b>	<b>COVID-19 change</b>	<b>Transaction revenue (EUR)</b>	<b>COVID-19 change</b>	<b>Commissions (EUR)</b>	<b>COVID-19 change</b>
<b>COVID-19</b>	376	3.01%	2,443,646,534.70	-18.97%	196,624,078.92	-9.42%
<b>Feb 21</b>	34	3.03%	208,375,752.99	-31.59%	17,096,957.29	-20.37%
<b>Jan 21</b>	30	7.14%	167,301,162.45	26.34%	14,371,801.24	15.77%
<b>Dec 20</b>	53	39.47%	403,880,114.31	-12.71%	29,318,256.77	-0.93%
<b>Nov 20</b>	39	34.48%	258,031,407.91	33.88%	21,909,277.71	31.67%
<b>Oct 20</b>	34	54.55%	249,149,527.81	76.87%	20,430,959.08	77.12%
<b>Sep 20</b>	38	58.33%	201,483,210.51	54.42%	17,623,371.02	54.33%
<b>Aug 20</b>	31	82.35%	318,092,451.30	196.72%	20,948,760.00	174.82%
<b>Jul 20</b>	34	-15.00%	168,075,746.74	-50.95%	15,688,142.23	-35.14%
<b>Jun 20</b>	31	0.00%	145,198,387.61	-28.83%	13,675,196.10	-16.86%
<b>May 20</b>	22	-56.86%	190,218,931.52	-62.32%	12,976,903.71	-60.87%
<b>Apr 20</b>	12	-58.62%	39,855,382.22	-81.64%	3,956,231.84	-75.96%
<b>Mar 20</b>	18	-21.74%	93,984,459.35	-65.97%	8,628,221.94	-46.47%
<b>Pre COVID-19</b>	365		3,015,766,571.90		217,070,241.18	
<b>Feb 20</b>	33		304,594,277.53		21,469,923.64	
<b>Jan 20</b>	28		132,424,827.25		12,414,485.01	
<b>Dec 19</b>	38		462,691,421.86		29,593,880.43	
<b>Nov 19</b>	29		192,734,508.68		16,639,666.49	
<b>Oct 19</b>	22		140,869,286.32		11,534,779.21	
<b>Sep 19</b>	24		130,477,932.14		11,418,965.78	
<b>Aug 19</b>	17		107,204,102.44		7,622,700.21	
<b>Jul 19</b>	40		342,695,705.03		24,188,515.95	
<b>Jun 19</b>	31		204,022,079.13		16,447,501.72	
<b>May 19</b>	51		504,830,442.83		33,165,597.67	
<b>Apr 19</b>	29		217,062,033.80		16,456,629.34	
<b>Mar 19</b>	23		276,159,954.89		16,117,595.74	

## Annex 4 – Descriptive statistics (ancillary services sector)

<b>Balearics (Spain)</b>							
	Number of Observations	Total	Mean	Median	Standard Deviation	Minimum	Maximum
Employees (Single Site)	12	225	18.75	5	23.86	1	72
Employees (All Sites)	17	310	18.24	12	20.28	1	72
Revenue (EUR)	18	79,124,000.00	4,395,777.78	2,450,000.00	5,351,973.66	40,000.00	18,000,000.00
<b>Côte d’Azur (France)</b>							
	Number of Observations	Total	Mean	Median	Standard Deviation	Minimum	Maximum
Employees (Single Site)	9	161	17.89	10	18.80	1	64
Employees (All Sites)	13	238	18.31	10	16.44	1	64
Revenue (EUR)	12	50,709,000.00	4,225,750.00	2,200,000.00	5,226,716.65	154,000.00	19,000,000.00
Pre-Tax Profit (EUR)	12	- 7,065,400.00	- 588,783.33	- 6,200.00	2,306,928.99	- 7,900,000.00	385,000.00

## Annex 5 – Superyacht Chartering and APA Questionnaire

Dear Sir or Madam,

MYBA has commissioned a report investigating the economic impact of the superyacht industry. We divided the superyacht industry into three main areas: (1) shipbuilding including refit and design; (2) ship management including chartering and crewing; and (3) tourism including marinas.

In the tourism sector, our main goal is to understand, how superyacht tourism affects local businesses. This questionnaire therefore focuses on the advance provisioning allowance (APA) which helps us to measure expenses that contribute to the local economy.

We will treat the information you provide as confidential. Any data that we include in the report will be anonymised.

In case of any questions, feel free to reach out to us at any time.

Thank you in advance.

1. How many superyachts does your portfolio include?
2. What is the average weekly charter fee for these superyachts?
3. What is the average occupancy of your chartered superyacht in a normal year? (weeks per year)
4. What is the average APA as a percentage of charter fees? Does it depend on superyacht length?
5. Is the APA already included in the charter fee?
6. Which expenses does the APA cover?
7. On average, how much do superyacht passengers spend off-board in addition to the APA?
8. On average, does the APA cover the necessary expenses?

## Annex 6 – Results of the Superyacht Chartering and APA Questionnaire

Descriptive statistics						
	Superyachts for charter	Average charter fee per week (EUR)	Occupation (weeks per year, low)	Occupation (weeks per year, high)	APA (low)	APA (high)
<b>Observations</b>	8	11	8	8	13	13
<b>Total</b>	544					
<b>Mean</b>	68	137,399.55	7.56	8.81	26.54%	31.54%
<b>Median</b>	73	150,000.00	7.00	9.00	25.00%	30.00%
<b>Standard Deviation</b>	33.80	51,313.48	2.23	2.24	3.15%	2.40%
<b>Minimum</b>	20	70,000.00	4.50	4.50	20.00%	30.00%
<b>Maximum</b>	110	217,500.00	10.00	12.00	30.00%	35.00%

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