



Lisbon School
of Economics
& Management
Universidade de Lisboa

MASTERS IN MANAGEMENT (MIM)

MASTERS FINAL WORK

BUSINESS CASE

Environmental Sustainability in the Boating Industry: The Group Beneteau Case

HENRIQUE MESQUITA DE ABREU BRITES

SUPERVISOR: PROF. LUIS PAULO MAH SILVA

MARCH - 2022



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To my family, for the continued support and investment in my future. Without their availability to motivate me and help, this achievement would not have been possible.

Abstract

In the aftermath of the second world war, fiberglass boats appeared to change the boating industry, allowing for economic growth of the market players and an improved consumer experience. Through crises and recessions, the industry has grown in the last two decades, as recreation boating-related activities are becoming more and more popular and millennial and post-millennial generations are turning to a future outdoors, after a worldwide pandemic that brought lockdowns and loss of freedom.

Pioneering since the 20th century, Group Beneteau has made the right gamble and became one of the industry key players. Following a past of ups and downs, highs and lows, expansion and recession, Group Beneteau is now worth more than a billion dollar, employing more than 7600 employees over six different countries and producing 180 different boat models, making it one of the top three largest companies in the recreational boating industry. In a never-ending developing world, the company has been able to anticipate a future of sustainability mindsets to lead the path for a more environmentally friendly industry which keeps falling short of its objectives, as production processes and materials pollute and produce a level of waste well beyond acceptable.

KEYWORDS: Strategy; Sustainability; Consumers; Market Leaders; Sustainable Development

JEL CODES: D12; D22; D40; E23

Resumo

Foi no pós-segunda Guerra mundial que a fibra de vidro apareceu para revolucionar a indústria naval, permitindo o desenvolvimento dos principais “players” no mercado e possibilitando uma melhor experiência ao consumidor. Por entre crises e recessões, a indústria cresceu nas últimas duas décadas, com as atividades aquáticas recreativas a tornarem-se cada vez mais populares, acompanhadas de uma maior necessidade da geração millennial e pós-millennial em viverem um futuro fora de portas, no pós-pandemia que trouxe confinamentos e perda de liberdade.

Pioneiro desde o século XX, o Grupo Beneteau fez a aposta certa e tornou-se num dos principais líderes do mercado. Segundo um passado de altos e baixos, expansões e recessões, o Grupo vale hoje mais de um bilião de dólares, empregando mais de 7600 funcionários, espalhados por seis continentes diferentes e produzindo 180 modelos de embarcação diferentes, fazendo do Grupo Beneteau um dos três maiores grupos a operar na indústria naval. Num mundo em que o desenvolvimento é constante, a empresa conseguiu antecipar um futuro de sustentabilidade e liderar o caminho para uma indústria mais amiga do ambiente que continua a falhar nos seus objetivos, enquanto materiais e processos de produção poluem e produzem um nível de desperdício acima do aceitável.

KEYWORDS: Estratégia; Sustentabilidade; Consumidores; Líderes de Mercado; Desenvolvimento Sustentável

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**1. ENVIRONMENTAL SUSTAINABILITY IN THE BOATING INDUSTRY: THE
BENETEAU CASE**

1.1 Learning Outcomes

After reading and analysing this case, students should be able to:

- Identify the main sources of progression in the boating industry
- Identify the main paths for integration of sustainability within the recreational boating industry
- Understand the internal structure and building processes of a key market player within the industry
- Understand the positive and negative outcomes for the industry players of investments towards sustainability
- Analyse the macro and micro business environment in the boating industry

1.2 Boating Industry – The Evolution

Nearly 400 years have passed since the appearance of what was to be called the “boating industry”, currently contributing its products to over 140 million boaters and water sports practitioners. In the mid 1600s, boats started to show up in the River Thames for royal regattas. This connection to the royal family led to boating becoming an activity exclusively for elite members of society for approximately 300 years until the invention of the outboard motors, which would make boating less expensive and thus more accessible to the public.

The following years would allow for the establishment of two important institutions: “The National Outboard Association” and “The Marine Trade Association” which opened the path to a more organized “industry”. It was still hard to look at boating as an industry since the recession had generated less economic power and had not yet allowed for the mass production of boats. The construction of few boats meant that this activity was still only possible within the upper class. The 1940s brought the war and, as a result, companies were solely focused on building boats and ships for military purposes. However, it brought one of the most important advances within the industry – the fiberglass – “a form of fibre-reinforced plastic where glass fibre is the reinforced plastic.” When the first properly constructed fiberglass boats appeared they brought interest but, above all, they were long-lasting and affordable. This reduced the costs of boat building and, alongside the economic recovery, led to an important mass production of boats that would finally make it a proper industry. The post-war period was surprisingly important for the industry numbers. In 1950 the number of registered boats was approximately 450,000 – by 1960, the industry was producing a similar number of boats per year.

If, on one hand, the industry progressed with the introduction of the fiberglass production method, it should also be mentioned that the evolution of boating was always correlated with the evolution of the engines that would power the boats. During these years, both Volvo with its engine “Aquamatic” and Mercury with its engine “Mercuriser” were extremely significant for the progression of the industry to the general population. Furthermore, it brought more competition to the market as more and more companies would notice its evolution.

The 80s and the recession brought some difficulties. Not only this but the rising concern regarding the sale of gasoline led the government in the US to prohibit weekend boating. These decisions affected the industry and resulted in some key players such as Chrysler selling their boat manufacturing division. Fortunately, Volvo came up with a subsidiary “Volvo Penta” that was to develop new products connected with these new issues. Yamaha also joined the market for outboard engines, and Mercury invented a new technology electric fuel injection – Injecting fuel directly into an

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engines' cylinder using electronic controls. Once again, the rise in boating market was to be generated by engineers and new products. In 1980, the number of recreational boating vessels registered in the US was around 8,58 Million compared to 11,84 million in 2020. This value reached a peak of 12,94 Million in 2005.

The Recreational Boating Market has been developed in different areas throughout the years and have gone through highs and lows to reach its peak in the last few years. In 2009 the value of the industry was USD 18,2 Billion which, compared to 2020 values, shows an expansion of over 42% in 11 years. The main driver for this increase in industry sales volume is the rise in water sports interest mostly led by tourism and as a cultural aspect of the millennial and post-millennial generation. North America continues to lead the way in terms of Fastest Growing Market, consolidating its position as the biggest market within the industry, accounting for over 70% of the market share including the United States and Canada. In the United States alone, the outdoor recreation market account for 2,1% of the total GDP of the country, with boating and fishing earning the highest share of output totalling USD 23,6 Billion. Europe is the second largest market for boating, with around 25% market share translating to over 36 million customers. Growing at a compound annual growth rate of 6%, the industry was valued at USD 26 Billion and is expected to reach USD 35 Billion in 2026. The COVID-19 pandemic had a big impact on the demand for boats, as it affected household incomes and decreased the demand for luxury goods.

1.3 Boating Industry Segmentation and Major Trends

This industry is divided by boat type, application, power source and geography. Within the boat type there are four characteristics: inboard, outboard, personal watercraft, and other boat types. The application is either for fishing or water sports such as sailing. The power source distinguishes between IC engine vs electric power. Lastly it is segmented by geographical markets such as North America, Europe, Asia-Pacific and the rest of the world. Another important feature is that the boats can also be split into motorboats, sailboats, or other types of boats (such as canoes, inflatable boats, etc.). According to a study conducted in 2021 regarding the environmental impacts of increasing leisure activities in the Mediterranean coast, motorboats account for 87% of the fleet while sailboats total 11% and others 2%, meaning that most of the recreational boating market in the Mediterranean is powered by polluting sources rather than naturally driven ones, which should be a concern for the key market leaders. By 2020, for the overall market, approximately 11 million recreational boats were mechanically propelled while only 850,000 were propelled by sources other than mechanical. 16 to 26 feet is the most popular size range among the mechanically propelled category of boats.

The major players in the market are the ones with the highest production capacity, spreading through different continents and with the fastest reaction to customer demand. In 2021 the key market leaders were:

1. **Brunswick Corporation**
2. **Group Beneteau**
3. **Azimute Benetti Group**
4. **Bennington Marine LLC**
5. **Catalina Yachts**

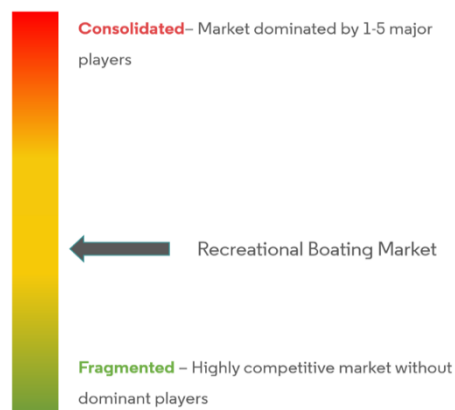


Figure 1 – Market Concentration in the Recreational Boating Industry Source: Mordor Intelligence

In 2020, with the start of the COVID-19 pandemic, the recreational boating industry suffered a decrease in its overall revenues as expected, since most of the products commercialized within the industry are considered luxury goods. The pandemic brought not only a decrease in revenues but a

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period of postponement of investments which had a short-term impact in the operation of the companies that would only get their activities back to normal after 2 years.

In 2021, the two largest companies on the market are following a path of acquisitions to establish growth in the industry. In October the Beneteau Group acquired Starfisher, strengthening its production capacity for powerboats in the 25-35 feet range. This acquisition resulted in a new production site in Portugal. On the same level, Burnswick Corporation acquired Navico, a global leading company on the field of electronic and sensors for marine products. By integrating different know-how and skill sets, these market key players are now in a stronger position to face new demand and rivalry within the industry.

Although, the pandemic negatively impacted the overall revenue of the industry during the period, it also created an opportunity for development. Younger generations are being forced to notice the importance of outdoor activities for mental health, which values the boating industry as one of the options within the leisure outdoor industries. Looking to the future of boating is similar to looking at the future of technology and evolution of mechanical processes. Despite this expected progression in technology, most of the trends within the industry are not pointing at an increase in the overall sustainability performance:

- **The usage of ethanol fuel:** ethanol-based fuel was, until now, limited for selling purposes during the summer months. This was limiting the purchase for the boating market which, due to change in the legislation, will now be able to buy this type of fuel. This type of fuel is still very polluting, mostly due to its high level of air pollution and reduced fuel efficiency.
- **Diesel engines:** these engines are becoming increasingly popular in the boating market and its usage is projected to maintain a steady increase in the near future. Diesel engines fall short on saving the environment.
- **Safety devices:** devices such as kill switches that turn off the engines in case of an emergency are becoming increasingly relevant within the market as they encourage safer boating, an important feature for recreational boating. These devices are also being combined with man-overboard alarms, which function by shutting off the engine if someone falls overboard through the attachment of a cord to the user.

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- **Boat rental:** boat renting is becoming progressively popular especially for family holidays. This approach is so profitable that there is a market for boat rental only, led by companies such as GetMyBoat or Nautal, the latter operating across the Mediterranean Sea. Other options would be to follow strategies such as Airbnb where boat owners would rent their boats to other users, instead of a business-to-consumer approach.
- **Diversity of users:** the evolution of the industry, accounting for fewer costs, lower prices and mass production is leading to a change in the customer profile. As recalled earlier, some decades ago, only the elites could afford to go boating however nowadays, more people from different continents, ethnicities and social levels are getting access to this lifestyle. This is a key trend that will lead to growth of the industry over the next years.

1.4 Sustainability within the Boat Building industry

Sustainability is nowadays a big issue and part of our everyday life. The concept of sustainability is very broad and can affect 3 core areas: economic, environmental, and social. The concept is often correlated with the long-term, something that will be generated from change in the short and medium term. That is why, to bring up the issue of sustainability, we will always need to look at it from the perspective of sustainable development: *“the many processes and pathways to achieve sustainability”*. To achieve sustainability, it is important that the economic, environmental, and social pillars are all standing. The reason why boating has failed to be sustainable is likely due to the positive effects of improving environmental sustainability within the industry being undermined by the negative effects in economic sustainability i.e., being sustainable will likely lead to losing money.

Boat building can be environmentally unsustainable in 2 views:

- The **process** of boat building
- The **destiny** of the boat built

When we look at the *process*, we are directly looking at fibres, resins and other materials that are extremely pollutant. Carbon fibre, for example, is used not only in boating but also in the car industry. Here, the process used in the production leads it to become wasteful, as it is often laid up by hand and not machines, which increases the waste levels. An article written in “The Guardian” about the usage of this material in the car industry said *“by the time they’ve been trimmed to size, almost a third of these carbon fibre sheets end up on factory floors, according to recycling company ELG Carbon*

Fibre". If we imagine this in a boat building scenario for a 30ft boat, it will generate a large amount of waste. If we think about the recycling of this material, the result is also negative. The strength carbon fibres acquire after being moulded onto a car or even a boat is not easily changed to adapt to other uses, thus making it hard to increase the lifespan of one square meter of used carbon fibre. Fiberglass boats are usually discarded after going past their useful lives even though their EOL (end-of-life) is still to come, which creates a major issue in terms of sustainability of the boat industry.

This leads us to the second issue of boating sustainability: *the destiny*. Most boats that reach their final lifespan end up in a landfill, littering the landscape. The stiffness of the materials usually makes it hard for them to be re-used and with a lack of marina berths available due to cost, most boats end up being thrown away somewhere on land. This is nowhere near sustainable and building boats with such durable materials often creates problems for boat manufacturers who end up limiting new-boat sales.

Improving on these issues will never be easy. Changing the process to reduce waste levels and polluting materials, will mean a higher investment in machinery and materials used, while the increase in cost resulting of this change will most likely end up not being paid by the demand side, but by the supplier side, with reduced margins and lowered profits hence the difficulty in reaching environmental sustainability development within the industry.

1.5 The Process of Boat Building

By definition, boat building is "*the design and construction of boats and their systems. This includes at a minimum a hull, with propulsion, mechanical, navigation, safety and other systems as a craft requires.*" The art of boat building goes back to hundreds of years ago. However, it was only in recent decades that the process of boat building evolved more rapidly.

Wood has been the most widely used material in boat manufacturing for hundreds of years. It was more likely used in small boats up to 20 feet (6-metre) and became popular due to its availability, easiness to work with and buoyancy. One of the identified issues with choosing this material is its abrasion resistance which varies according to the hardness and density of the wood. Teak, totara, and some cedars are wood types that naturally offer some resistance and therefore last longer due to some chemicals that prevent it from rotting. The variation in durability of the wood is often related to the way it is treated and the different finishes.

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Some boats are also built with metal. This is less likely to be used for smaller boats and therefore for the recreational boating industry. However, bigger ships are usually produced using this material, which can in itself be divided into 3 different categories:

- **Iron and steel:** this type of metal is very strong but is also very heavy which, for smaller boats, can have a big impact on performance.
- **Aluminium:** the importance of aluminium in the boating industry is related to boat fittings and rigging. In particular, for sailboats, which need masts, booms and poles to hold the sails up, aluminium is a key component for manufacturing it, as it is light and easy to cut. Building boats using aluminium is popular in France however it is expensive, difficult to weld, and usually requires heat treatments to work. It is usually found in boats that are not permanently kept in the water.
- **Cupronickel:** this material has very little use in boat building due to its high cost. Cupronickel is only found in the hulls of premium tugboats, fishing boats and other working boats.

The biggest advance in boat building material usage is fiberglass. Fiberglass, also known as glass-reinforced plastic (GRP), is very commonly used for the production of boats because of its capacity to re-use a female mould, which is the foundation for the shape of the boat. If there is a material that can be re-used for a very long time, then there is an allowance for mass production. When fiberglass usage became popularised, the massification of boating production became a reality.

Following the appearance of fiberglass in the boat building industry, we have seen more recently the use of carbon fibre. Carbon fibre allows for less weight on the end product, which drives increasing performance in boats.

1.6 The Beneteau Case

1.6.1 Beneteau Group History

Group Beneteau is one of the most recognized brands in the boating industry. Its revenues exceed the 1 Billion euros value nowadays, a reflection of a past of good choices and strong strategic plans.

It all started in 1884 when Benjmin Beneteau decided to launch his own boatyard, after finding that passion looking at his best friend’s father who was also a boat builder. The company first focussed on fishing boats. In the 19th century, fishing boats were powered by sails and performance was important as faster boats would be the ones to get fish to the customers first. In the early 20th century, the appearance of engines led to the building of engine-powered fishing boats, shifting from designs adapted from sailing to a completely new set up that would require big investment, innovation and architectural skills. Beneteau never ceased his ambition and complied with the evolution of the industry in his local town Croix-de-Vie, where he created his first engine-powered boat. By the time the boat was finished he had no customers, and allegations that the motor sound would frighten the fish away led Beneteau to be the owner of his first engine-powered boat (named “Conqueror of the Jealous”).

The history timeline of the Beneteau family continued to draw itself after a worldwide Great War that left the brand stuck with no chances of growing or developing. Andr, representing the second-generation of the family, re-started Beneteau in 1928 when he was only 21, using his drawing skills to get the first design of the “new” Beneteau post-war brand. With the support of one fisherman from his hometown he built his first fishing boat and, with great feedback from his home crowd, he put the Beneteau name back on the map. The Second World War created more difficulties and stagnated business. After this war, production levels got back up and the company had a great period until 1962, when the fishing boats trade decreased and a new re-invention was, again, mandatory. Andr’s passion led him to continue and with the fishing boat market falling short of Beneteau’s goals, the company faced a different challenge and shifted to the sailing boat industry. The appearance of polyester, a new material for the boat industry, eased the production process and created an opportunity that Andr took right away. He sold his first small sailing fishing dinghy to sardine fishermen. This caught the attention of new dealers interested in commercializing the product and not long after the different boat models appeared, and a new market segment would be presented.

Dealers would be an important feature in the company business model. At the time, Jeanneau, another boat building company with great success, was using a dealer-based sales model that would

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attract customers via brand representatives that would receive a commission for each boat sold. This business model has proven to be a success among other key brands on the market, one of the cases being J Boats – whose owner Bob Johnstone once said: “I realized then that you must have a professional dealer network to succeed.” (9-197-015 Case by Harvard Business School). After putting the model in action, the sales volume went up and the company managed to balance its accounts while innovating to new boat models based on customer requests. It was at this point that boats started growing in size and comfort and this was when Beneteau was ready to deliver by investing in workforce and facilities to a scale that would make the business grow.

By 1976, the production of a more performance-based sailing boat named “First”, generated immense enthusiasm that permitted Beneteau to grow overseas with the construction of new production facilities and development plants in new countries. The 80s were very important for growing to foreign markets such as the USA. The implementation of this new market would provide stability and prosperity. However, difficult times were ahead with the economic crisis in the 90s that highly affected the boating industry, which was highly reliable on the western world. The economic crisis affected not only Beneteau but also other big boating companies and market competitors that would have to learn to live with a crisis. The company found its path through the crisis, according to the owner Annete Roux, because its structure managed to stay together through the difficult times and come back stronger. By the end of the crisis, the scale of the business would have been developed and the company would be healthy enough to go from “Beneteau Boatyard” to “Beneteau Group”, an expansion that reinforced the market value of Beneteau.

1.6.2 Beneteau Today

As a key market player in boating, Beneteau employs 7600 people over 6 different countries: France, US, Poland, Italy, Portugal, and China. Its investment in Europe goes beyond boating to leisure homes, a unique and recent concept to substitute tents and mobile homes with small houses. In the Beneteau Group there are 12 boat division brands that offer a portfolio of 180 different recreational boat models – which vary from motorboats to sailing monohulls and catamarans – all of which are produced with Beneteau’s know-how and skillset, which are considered to be among the most valuable on the market.

The quest for digital initiatives that contribute to an improved customer approach can be identified through 3 different platforms created by the Group:

- **Leasyboat** – an innovative financing service that helps customers acquiring their motorboats through a monthly payment plan that includes not only the purchase of the boat, but also the engine maintenance costs and insurance. This offer is at the moment only applying to single engine outboard motorboats and is so far limited to 100,000€. The idea comes from the automotive industry in which these payment plans and contracts with the consumer were already available.
- **Band of boats** – similarly to the model used in the car industry, Beneteau has designed a platform where all customers can search for a boat that will meet their target. The boats on the platform are located across different locations which can be positive for demand, while most of these are used boats sold by their owners through the platform.
- **Boat clubs** – Beneteau Boat Club and Jeanneau’s Freedom Boat Club offer a concept where boaters, by choosing a membership plan, join a club that provides access to a fleet of recent boats – all less than 3 years old – without having to worry about the logistics of owning a boat.

All these initiatives are developed through **SGB Finance**, a financial partner for the Beneteau group which manages the credits and leasing options for the group’s clients. SGB aligns its financing with the customer needs while providing solutions for recreational boats, passenger ships and leisure homes.

1.6.3 Production Sites and processes

Most of Beneteau's production sites are in Europe – 9 in France, 1 in Italy, 2 in Portugal and 2 in Poland – however, there is still 1 production site in the US which primarily supplies the North American market and accounts for 30% of the company revenues.

The process of boat building, as seen in this case, has gone through tremendous changes in the last century and as one of the biggest companies in the industry, Beneteau has been able to keep up with the evolution and deliver maximum quality. Today, they offer four different processes:

- **Hand lay-up** – this process involves layering pieces of fiberglass on top of each other and then saturating them with resin. Hand lay-up is the most usual procedure in Beneteau's production. In addition to that there are three different core materials that can be chosen by the buyer: solid fiberglass and resin, PVC, and balsa core, the latter being the one that offers the best balance of strength thickness and weight, thus being the one recommended by the builder.
- **Resin infusion** – this innovative procedure uses fiberglass and balsa core as materials. They are then covered in a vacuum bag, which allows the resin to pull through all of the fiberglass and around the balsa core, offering great control over the levels of resin applied to each square meter of fiber. It also ensured that the finished product has no air on it, making it stronger and more reliable.
- **Injection moulding** – introduced in 2005, injection molding consists of covering molds – with the shape of the boat in this case – with gel coat which is then covered with fiberglass and secured with resin. This offers the following benefits:
 1. **Control of fiber to resin ratio**
 2. **Perfect finishing details**
 3. **Worker-friendly and efficient environment**
 4. **Lower labour costs**
- **Woodworking** – used in the interiors of the boats, wood has always been a material used by Beneteau. All of the woodwork used in the boats comes from a single factory in France that combines handcraftsmanship with technological advances to produce reliable finished products.

1.6.4 Moving towards Sustainability

In its Corporate Social Responsibility report for 2018-2019, Beneteau has included the topic of Environmental Sustainability which has been in development since the appearance of its *Transform to Perform Plan* in 2017. In this plan, the company set the goals for the following years as: reduce the consumption of raw materials, reduce energy consumption, and reduce environmental impacts.

Using a Materiality Matrix, the company has distinguished its approach to each relevant issue, by setting the priority levels according to the following sections:

- **Priority 1** – stakes that are currently being covered or will be subject to an action plan – in this tier we can identify 2 environmental variables: ***deconstruction*** and ***reducing raw materials***
- **Priority 2** – medium priority stakes, some of them being already covered by an action plan – in this section we can find 2 environmental variables: ***energy savings*** and ***energy efficiency***
- **Priority 3** – low priority stakes – in this section we can find 2 environmental variables: ***waste*** and ***water savings***

With this type of mapping, Beneteau has proven to be capable of placing some actions ahead of others, which would be an important start to showcase an action plan. The progress of each of these actions has been assessed in the 2018-2019 report.

When analysing the performance of Beneteau in the environmental sustainability field it is important to take into consideration that the company has been complying with the ISO certifications:

- **ISO 9001** – establishes a set of norms which create a model of quality management.
- **ISO 14001** – allows companies to show their compromise with environmental sustainability through risk management applied to the environment in the industry the company operates in.
- **ISO 50001** – the most common used norm for managing the use of energy.

ISO Certifications are important for the company in the market context. It is a way of publicly promote the company performance ahead of environmental issues which builds trust on the demand side, important to position the company among the market key players and against its rivals.

“Aware of the environmental impacts of its activities, Groupe Beneteau is committed to identifying, controlling and reducing them.”

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Analysing the company's report within the years of 2016-2019:

- **Water consumption** – by the year 2016, water consumption levels were around 8,939 M³/million hours worked. In 2019, this number had decreased to 6743 M³/ million hours worked, which means a decrease of 32,5%. This metric is commonly used in the boating industry in filling up the boat tanks for testing, sanitation and also for carrying out other test such as water tightness.
- **Raw materials** – the three core materials used in Beneteau's operation are resin, gelcoat and timber. Between 2016 and 2019 the resin and gelcoat usage decreased 17,5% which shows great progress, mostly due to higher efficiency of machines that ensure effective control over the use of these materials during the production process. Timber scrap levels in 2019 were of around 23% of the total timber used in the production process. However, the company ensures in its report that the timber used is from environmentally managed forests.
- **Energy efficiency** – data shows that electricity and gas consumption have decreased in 2019 when compared to 2016 as well as the CO₂ emission linked to energy consumption levels have been reduced. This is happening because the Group is putting theory into practice with some actions such as thermal insulation for buildings, centralized monitoring of energy, and optimizing ventilation among other initiatives that are having a positive impact on company overall performance and sustainable operation.
- **Reducing polluting emissions** – two indicators are crucial for the overall assessment of the company performance in emission reduction: the Volatile Organic Compound Emissions index and the Compliance Rate for Water Discharges. The first has decreased from 94,3 to 79,2 in 3 years. The goal since 2010 was to reduce the VOC emissions by 12-18% and the company has managed to decrease it by 25% being well above its goal. For the Compliance Rate for Water Discharges the compliance level has increased around 7% in the 3 years, going from 86,7% in 2016 to 93,4% in 2019. This was achieved due to the oil interceptors that make it possible to treat water before it is discharged into the natural environment.
- **Waste control** – waste has increased in the period according to Beneteau's data. If we look at the years between 2016 and 2019 regarding the French sites and subsidiaries, we understand that the increase in waste is mostly due to the **recovered non-hazardous waste** increase between 2017 and 2018. The amount of **hazardous waste** has increased in proportion with the increase in total waste. If the total waste of non-French subsidiaries is added, the total waste of the company increases around 25%. When

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looking at the total waste per million of hours worked it shows a slight decrease from 1,806 to 1,726 between 2016 and 2019. Waste in the Group is managed in order to achieve the following goals:

1. Increase recovery rate for valuable materials
2. Reducing materials consumption to ensure effective control over waste
3. Adopting solutions to reduce transportation of waste

1.6.5 “Let’s Go Beyond!” Strategic Plan for 2020-2025

In July 2020, Group Beneteau released a strategic plan for the next 5 years, for both the boating and leisure housing markets. In this plan, Beneteau reinforces the will to “offer everyone the opportunity to share moments of joy and discovery on the water”, which has been a key brand image of the company. The ambition by 2025 is that the Group creates more wealth for its employees and shareholders. All of these goals focus on bringing growth to the table, but the Group is not losing the focus on sustainable growth. The Group has divided its plan into 8 different approaches: brands and products, industrial and R&D strategy, functional organization and steering, housing, environmental commitment, digitalization and innovation, new business lines and financials.

Beneteau’s **environmental commitment**, which was better envisioned in 2016, is to be continued until 2025 and the company has established some major objectives to establish itself has a pioneer and game changer in recreational boating and leisure homes. For this purpose, Beneteau has defined some objectives for continuing to bring down unsustainability levels in the marine and boating industry:

- **Reducing fuel consumption:** this major goal is in line with the industry trend as more hydrogen powered boats are being developed as well as the use of the so-called e-fuels (power to liquid fuels) and bio fuels.
- **Co-designing alternative propulsion solutions** – alternative propulsion is also an industry trend and again hydrogen is in the list of alternatives. Moreover, other energy sources are in study such as wind, solar and nuclear all three being carbon-free.
- **Developing wastewater solutions** – along the lines of the *Reducing Water Consumption* goal, the company is planning on actively improving its systems to monitor the water waste.
- **Continue to reduce the consumption of water and raw materials**
- **Continue to improve energy efficiency**
- **Continue to reduce polluting emissions**
- **Limiting the impacts of transportation**

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Another goal set on the 2020-2025 Strategic Plan is to sign up to the United Nations Global Compact, which would bring sustainable development to the company.

Beneteau has proven to be a pioneer in the industry for many years. Its power, credibility and reliability have been key to creating a billion-dollar brand over the years and as enabled the Group to survive major crises and to come out of these stronger than its rivals. Its investments in different brands and markets have made it possible for the company to acquire a higher share of the market and to attract stakeholders' attention, enough to develop the production sites in strategic areas of the world and to grow the production capacity to levels that could fulfill demand. Attempting to achieve sustainable growth in an industry that has only more recently been developing environmentally sustainable techniques and alternatives makes Group Beneteau a leader in the quest for sustainability in the boating industry.

“As for the future, your task is not to foresee it, but to enable it”

1.7 The industry struggle to keep up with its Market Leaders run for more sustainable alternatives

As mentioned, the boating industry trends are not pointing to sustainable alternatives to the current processes and resources which contradicts the positive evolution within the scope of the market leaders that are channeling investment to sustainable projects. Hence, the question to be answered would be: **Why is the industry not following the path of its market leaders on the quest for sustainability?**

There can be many reasons as to why the industry is failing to provide for more sustainable alternatives as the ones presented by Beneteau. On a Micro analysis of the problem, it is possible to understand what the economic impact costs and final prices for smaller companies is of making these investments and its correlation with the quality of the end product. On a Macro analysis, the impact of the Market Leaders activity on the industry can be lower than expected given the proportion of market share.

1.7.1 Micro Analysis

When trying to correlate the impact of Beneteau's or other market leaders activities in the industry, the composition of the market and the characteristics of the majority of the players shall be key factors. According to researchers the boating industry is 97% made up of small and medium enterprises while only 3% of the companies employ more than 1000 employees, Beneteau being one of them. Hence, 97% of the market is composed of companies with a more limited capacity to invest in big machinery and processes that will contribute to a more sustainable industry. Within this market there can be two reasons as to why sustainability is failing on a micro basis:

- 1) Improvements in Quality of the end product:** Processes such as injection molding that contribute to a better control of the resin to fiber ratio, end up contributing to a decrease in the overall waste levels during construction. However, this is an expensive process that will require a higher investment for the players than keeping up with the more traditional processes such as Hand Lay-Up. To provide reasoning for updating the processes to this level, smaller companies would have to face a big increase in quality of their final products, which, given that low to medium performance boats are usually over-built, does not apply for most of the companies that end up producing this type of boats. Therefore, there are no grounds for justification of the investment on the profitability side.

- 2) Increasing Costs / Increasing Prices:** On the other hand, if quality is disregarded and a cost approach is taken, smaller companies will have to increase costs in order to keep up with the sustainable investments of the market leaders. However, as their capacity to invest is much lower, they will end up seeing their costs increasing which will allow for either reduced margins or higher prices that will not make them competitive with the larger companies. Given this scenario, most of the small to medium companies end up focusing on the factors that increase the quality of the product rather than the ones that will contribute to a smaller footprint on the environment. Larger companies such as Group Beneteau will be able to fulfill the need of the customer while providing for a smaller impact on the environment and keeping their cost control.

- 3) Customer Profile:** The type of customer that buys a boat can have a great impact on the willingness to invest in sustainability of most of the companies operating on this market. In a study conducted in 2013 it was stated that “Twice as many new-boat buyers are over 65 as are under 40 and that gives forecasters gray hairs”. The same study provides information that the customer average age for the boating industry had gone up from 45 years old to 53 years old between the years of 1997 to 2013. In fact, only 16% of the buyers during these years were below 40. Buyers who are older tend to perceive comfort and price as more important than the materials used or the process of production of the boat. This happens because this customer segment is also part of a generation that is less sensitive to sustainability issues.

Despite the positive effect that COVID has had in bringing the millennial generation closer to the marine industry, it is still expected that the customer profile for the boating industry will remain with a higher proportion of older people, as these are the age groups who have more purchasing power. Hence, given the perspective on customers for the upcoming years in the industry it is predicted that there will be no positive influence on the sustainability impact of boating.

1.7.2 Macro Analysis

On the Macro side of the topic, by looking at the overall market composition , it is also possible to identify some reasoning behind the lack of evolution on sustainability levels.

- 1) **The Impact of Market Leaders in the Overall Market:** As stated, only 3% of the companies that are part of the boating industry, are considered large companies with 1000 or more employees and high capacity to invest. This means that 97% of the companies will tend to supply less sustainable products to be profitable. The effects of this market composition is that the positive impact of the actions taken by the bigger companies ends up diluted in the absence of evolution provided by the smaller companies which will. Therefore, it is safe to say that the trends within the industry are also being dictated by the majority of the market, composed by small and medium enterprises.

- 2) **Economic trends:** One of the major topics for the next years in the world economy is how to deal with inflation. The boating industry is being widely affected by raw materials shortage and increasing prices of suppliers which is having a negative impact on the final production costs of boats. Inflation in the overall economic sphere is decreasing buyers purchasing power and moving the general consumer away from luxury or superfluous products. This elasticity on the demand side will certainly motivate suppliers to lower their costs which is not in phase with producing advances in sustainability which tend to be cost ineffective.

1.7.3 The political effect on the industry contribution to the sustainable development goals

One of the key players within the boating industry are governments. Governments are having a great impact in motivating markets to move towards sustainable development. Companies in the boating industry are being pushed to set the example for other industries, regarding innovations in the process and the materials used during production. There are several mechanisms used by governments to promote sustainable development in the Marine Industry:

- **Funding:** The boating industry development towards sustainability is highly dependent on its supplier's investment in more sustainable practices. Given that the majority of the companies on the market have low capacity to invest in sustainable projects, it will be important that governments are able to channel funds to the industry while creating policies that allow for control of the application of these funds.
- **Certifications:** Provided by governments and other institutions within the political sphere, certifications enhance the importance of compliance to certain levels of commitment to causes defined as priorities for society. The importance of Sustainable Development Goals for aligning the objectives of the world with the capacity to respond of businesses and people is determinant to moderate and sustained development. Certifications related to these goals will allow for higher willingness to achieve it by enterprises within the sector. Group Beneteau is an example of a corporation that guides its sustainability efforts through the Sustainable Development Goals defined by the United Nations
- **Taxation:** One of the aspects governments can exert control over are the tax rates to which the raw materials used are subject to. If governments impose higher taxes on products that are more harmful for the environment, they will be creating incentives for companies to invest in less harmful materials. This can have an influence on the consumer side too, if boats built with certain materials are subject to higher taxes than others, therefore motivating the consumer to choose the more sustainable option as we have seen the demand is price elastic.

1.7 Discuss Questions:

- 1- What are the main drivers for the growth in the boating industry?
- 2- Construct a PESTLE analysis for the Group Beneteau.
- 3- Provide information as to how Group Beneteau tackled the issue of environmental sustainability over the last 5 years.
- 4- Build a SWOT analysis for Group Beneteau in the quest for sustainability.
- 5- Relate the Group Beneteau strategic plan to the United Nations Sustainable Development Goals.
- 6- In which business sectors is Group Beneteau aiming to strategically invest in order to reduce its production footprint in the environment?
- 7- Create the general customer profile for the recreational boating industry with the information provided in the case.

1.8 Further Readings:

- Robert Simons, *J Boats Inc.*, Harvard Business School, 1999
- Ecoris Nederland BV, *Study on the competitiveness of the recreational boating sector*, ECSIP Consortium, 2015
- Groupe Beneteau, *2018-19 Activity Report*, Groupe Beneteau, 2019

1.9 References:

CARREÑO, A. AND LLORET, J.

Environmental impacts of increasing leisure boating activity in Mediterranean coastal waters

In-text: (Carreño & Lloret, 2021)

Your Bibliography: Carreño, A., & Lloret, J. (2021). Environmental impacts of increasing leisure boating activity in Mediterranean coastal waters. *Ocean & Coastal Management*, 209, 105693. doi: 10.1016/j.ocecoaman.2021.105693

ETHICS & COMPLIANCE - GROUPE BENETEAU

In-text: ("Ethics & Compliance - Groupe Beneteau", n.d.)

Your Bibliography: Ethics & Compliance - Groupe Beneteau. Retrieved from: <https://www.beneteau-group.com/en/values/>

LEARN HOW BENETEAU BUILDS BOATS

In-text: ("Learn How BENETEAU Builds Boats", 2022)

Your Bibliography: Learn How BENETEAU Builds Boats. (2022). Retrieved from <https://www.beneteau.com/us/newsroom-news/learn-how-beneteau-builds-boats>

BOAT BUILDING - WIKIPEDIA

In-text: ("Boat building - Wikipedia", 2022)

Your Bibliography: Boat building - Wikipedia. (2022). Retrieved from https://en.wikipedia.org/wiki/Boat_building

LET'S GO BEYOND! STRATEGIC PLAN FOR 2020-2025

In-text: ("Let's Go Beyond! strategic plan for 2020-2025", 2020)

Your Bibliography: Let's Go Beyond! strategic plan for 2020-2025. (2020). Retrieved from <https://press.beneteau-group.com/news/lets-go-beyond-strategic-plan-for-2020-2025-4ac1-49529.html>

MANAGING NONPOINT SOURCE POLLUTION FROM BOATING AND MARINAS |
OUTREACH & COMMUNICATION | US EPA

In-text: ("Managing Nonpoint Source Pollution from Boating and Marinas | Outreach & Communication | US EPA", n.d.)

Your Bibliography: Managing Nonpoint Source Pollution from Boating and Marinas | Outreach & Communication | US EPA. Retrieved from <https://archive.epa.gov/water/archive/web/html/point9.html>

RECREATIONAL BOATING MARKET | 2022 - 27 | INDUSTRY SHARE, SIZE,
GROWTH - MORDOR INTELLIGENCE

In-text: ("Recreational Boating Market | 2022 - 27 | Industry Share, Size, Growth - Mordor Intelligence", 2021)

Your Bibliography: Recreational Boating Market | 2022 - 27 | Industry Share, Size, Growth - Mordor Intelligence. (2021). Retrieved from <https://www.mordorintelligence.com/industry-reports/recreational-boating-market-growth-trends-and-forecast-2021-2026>

TRENDS SHAPING THE BOATING INDUSTRY OUTLOOK IN 2022 BY LINCHPIN SEO

In-text: ("Trends Shaping The Boating Industry Outlook In 2022 By Linchpin SEO", 2022)
Your Bibliography: Trends Shaping The Boating Industry Outlook In 2022 By Linchpin SEO. (2022). Retrieved from <https://linchpinseo.com/trends-boating-industry/>

2022 FORECAST: GROWTH ON THE HORIZON DESPITE CHALLENGES

In-text: ("22 Forecast: Growth on the horizon despite challenges" by Adam Quandt, 2022)
Your Bibliography: 22 Forecast: Growth on the horizon despite challenges by Adam Quandt, (2022). Retrieved from: <https://boatingindustry.com/features/2022/02/16/2022-forecast-growth-on-the-horizon-despite-challenges/>

AN OMINOUS AGE GAP

In-text: ("An Ominous Age Gap by Reagan Haynes, 2017)
Your Bibliography: An Ominous Age Gap by Reagan Haynes (2017). Retrieved from: <https://www.tradeonlytoday.com/dealers/an-ominous-age-gap>

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1.10 Exhibits

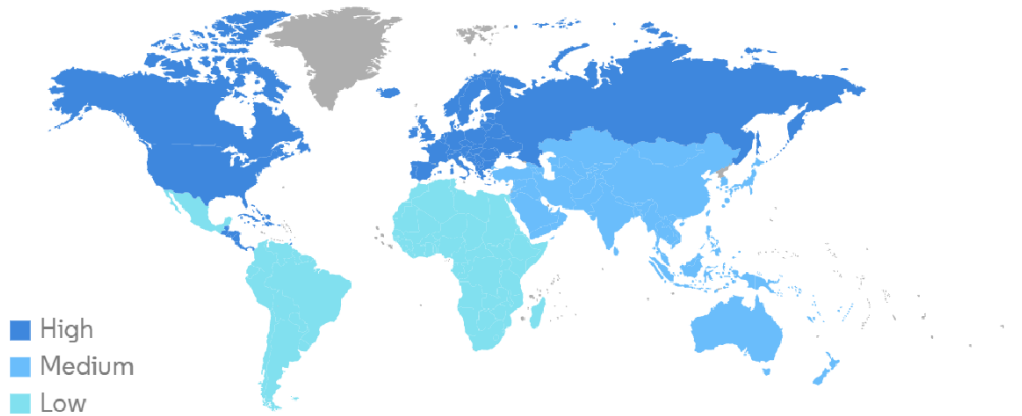
Exhibit 1: Severity of environmental impacts of activities associated with leisure boating. The activities and their potential impacts were ranked as high (H), moderate (M), and low (L);
 Source: A. Carré no and J. Lloret, *Ocean and Coastal Management* 209 (2021) 105693

Table 1
 Severity of environmental impacts of activities associated with leisure boating. The activities and their potential impacts were ranked as high (H), moderate (M), and low (L) following the risk assessment described in the text.

Criteria	Anchoring	Collisions	Sediment resuspension	Noise disturbance	Air pollution	Fuel and oil leaks	Black waters	Grey waters	Marine litter	Antifouling paints	Transport of exotic species	Animal feeding	Artificial lights
Spatial scale	H	M	L	H	M	M	L	L	L	H	H	L	L
Non-reversibility	H	H	L	M	M	M	L	M	H	H	H	L	L
Impact probability	H	L	L	H	H	M	M	L	L	H	M	L	L
Management complexity	M	L	M	H	M	M	L	L	L	M	H	L	L
Ecosystem impact	H	M	M	M	L	L	L	M	M	H	H	L	M
Rating score	H	M	L	H	M	M	L	M	L	H	H	L	L

Exhibit 2: Recreational Boating Market, Growth rate by Region (2021-2026)
 Source: Mordor Intelligence

Recreational Boating Market, Growth Rate by Region (2021 - 2026)



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Exhibit 3: Annual Turnover of the ship and boat building industry in France (2008-2017) (in million euros)
Source: Statista

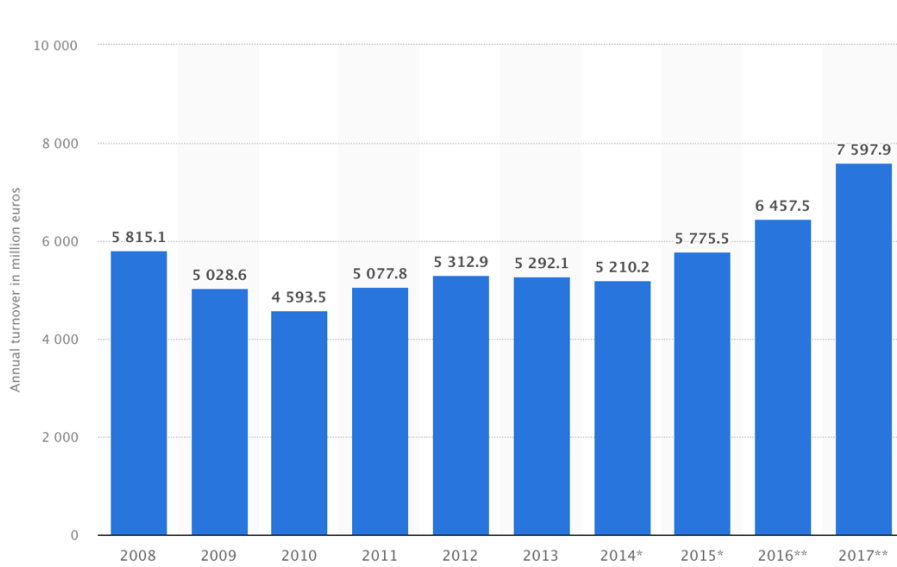


Exhibit 4: Group Beneteau Materiality Matrix
Source: Group Beneteau Activity Report 2018-2019



GRUPE BENETEAU MATERIALITY MATRIX

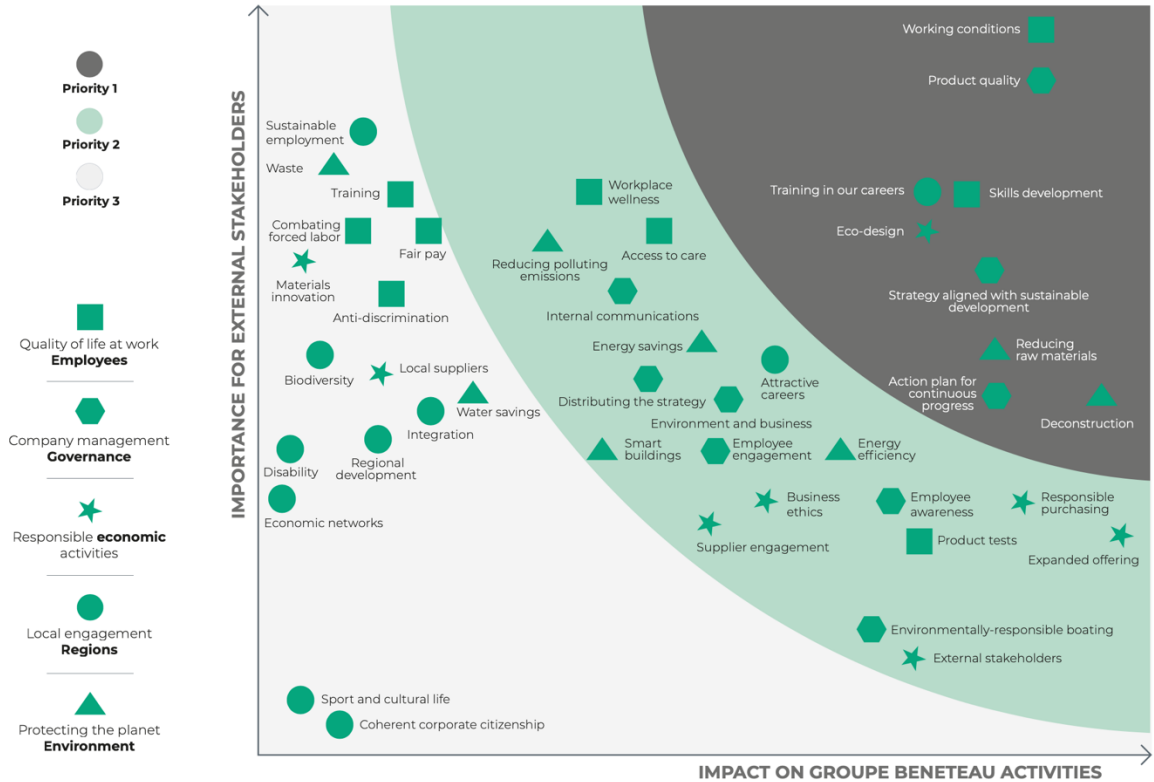


Exhibit 5: Water Consumption levels in Group Beneteau (2016-2019) (m³/million hours worked)

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Source: Group Beneteau Activity Report 2018-2019

Water

CSR scope ¹	2018-19	2017-18	2016-17
Water consumption m ³ / million hours worked	6,743	7,734	8,939

⁽¹⁾ Data based on calendar year for SPBI

Exhibit 6: Resin and Gelcoat consumption in Group Beneteau (2016-2019) (tons/million hours worked)

Source: Group Beneteau Activity Report 2018-2019

CSR scope ¹	2018-19	2017-18	2016-17
Resin / gelcoat consumption Tons / million hours worked	998	1,097	1,173

⁽¹⁾ Data based on calendar year for SPBI and Ostroda. These data relate exclusively to the Boat business, excluding SJ Delphia.

Exhibit 7: Timber consumption and Percentage of Scrap Timber in Group Beneteau (2018-2019)

Source: Group Beneteau Activity Report 2018-2019

French scope ¹	2018-19
Timber consumption Tons / million hours worked	3,620
Quantity of scrap timber / quantity of timber consumed	23%

Exhibit 8: Production Site VOC emissions (2016-2019) (kg/1000 hours worked)

Source: Group Beneteau Activity Report 2018-2019

Reducing volatile organic compound (VOC) emissions

CSR scope ¹	2018-19	2017-18	2016-17
Production site VOC emissions kg / 1,000 hours worked	79.2	85.1	94.3

⁽¹⁾ Data based on calendar year for SPBI and Ostroda Yacht. Excluding SJ Delphia

Exhibit 9: Free Cash Flow Group Beneteau
Source: 2019-2020 First-half Earnings (September 1, 2019 – February 29, 2020)

€ MILLIONS	HI 2019-2020	HI 2018-2019	Change	
			(reported data)	(constant exchange rates)
Revenues	519.4	495.9	+ 4.7%	+ 4.0%
- Boats	422.2	403.8	+ 4.6%	+ 3.6%
- Housing	97.1	92.1	+ 5.5%	+ 5.5%
EBITDA	27.1	32.5	- 16.4%	- 20.9%
Income from ordinary operations	- 8.7	- 3.4	ns	ns
Free Cash Flow	-156.0	-211.7		

2. TEACHING NOTES

2.1 Executive Summary

Boating has been an activity for hundreds, maybe thousands of years. It was in the River Thames that the first recreational boats appeared, competing at royal regattas. Since then, it took around 300 years to make boating available to a wider population and with it, for the start of a thriving industry. This massification of boat building allowed for the creation of 2 organizations that would help managing this growth: “The National Outboard Association” and “The Marine Trade Association”. The aftermath of World War II and the appearance of fiber glass, strengthen this growth and led to the creation of bigger companies with higher volumes of sales and boats with bigger lifespans. The combination and complementarity of the boating industry with the motor industry was also important as boating attracted know-how and investment from motoring and thus, the development of the industry happened with faster and more accurate improvements. However, recessions such as the 80’s one had some negative impacts on the market and helped to distinguish the well-established players. In the last decades, the rise in watersports interest is working as the main driver for the industry growth as newer generations are valuing outdoor activities at a higher price. There are some relatively important features when making a shorter version industry analysis: The Key Players and The Major Trends. Some of the Key Players can be found on the case:

- Brunswick Corporation
- Group Beneteau
- Azimute Benetti Group
- Bennington Marine LLC
- Catalina Yachts

The COVID-19 pandemic had a big impact in the industry delaying investments on the demand side and therefore, delaying investments of businesses on the market. Still, there are some major breakthroughs in the industry that all Key Market Players are looking at as the new market trends: New sources of fuel; Improved Safety Devices; Growing Boat Rental Market and the Diversity of Users.

The process of boat building is not an easy one. Improvements in the process usually arise from creations and appearance of new materials. When the first boats were built, hundreds of years ago, the core material used was wood as it was an easy to work material, with high levels of availability and buoyancy. Metals, such as Iron, Steel, Aluminium and Cupronickel were also used to produce bigger boats as they were heavier and had a negative impact on performance. In the 50’s, the appearance of fiberglass allowed for the massification of production and by the end of the decade, 450000 boats were

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being produced per year. Along these lines, more recently, carbon fiber started to be used in performance boats, allowing for less weight, and increasing performance.

The development of the industry brought with it some issues regarding sustainability. The unsustainable sources within the industry usually arise from the process used and the destiny chosen for the boats. The process is highly pollutant as it uses fibers, resins and other materials often leading to high rates of waste and non-recycling issues. Carbon Fibre is the most recent example, which according to a The Guardian study, one third of the fiber used in the production process ends up as waste. This happens because production is still very dependent in handcraftsmanship and not machinery. Another relevant sustainability problem is the destiny of the boats after their lifespan. Usually, due to high costs of maintenance and marinas, boats end up in the landfill, which leads to an environmental issue for the landscape. Throughout the years, key market players have been trying to improve the operational efficiency and procedures within the industry. One of the companies having a greater impact in these developments is Group Beneteau.

Nevertheless, the industry is finding it hard to keep up with sustainable development related to the environment. The majority of the companies operating in the market are Small to Medium Enterprises with low capacity to invest in sustainable programs that affect profit margins, which has an overall negative impact on the industry adaptability to a more sustainable business environment, despite the efforts of the key market players to value initiatives that promote environmental sustainability.

2.2 Teaching Objectives

After reading and analysing this case, students should be able to:

- Identify the main sources of progression in the boating industry
- Identify the main paths for integration of sustainability within the recreational boating industry
- Understand the internal structure and building processes of a key market player within the industry
- Understand the positive and negative outcomes for the industry players of investments towards sustainability
- Analyse the macro and micro business environment in the boating industry

2.3 Target Audience

This case study is targeted to students from the management area, with a focus in strategy and sustainability. It can also be used by engineering students as a complement to their building processes knowledge, by providing an overall view of the key trends within the industry. Level: Undergraduate and Masters Level

The case can be used to analyse and evaluate the strategic decisions of a specific company as one of the leaders for market development and understanding its influence on the market. Students will be required to think strategically as to how the company should have positioned and what could have been done differently. A Vision as to how the company should adapt to the future in terms of its position in the market is also possible by analysing the evolution of the industry.

2.4 Materials

- Teaching Note
- List of references
- Group Beneteau Activity Reports

2.5 Teaching Strategy

Students should be given the case before the beginning of the class in order to have enough time to create an opinion on the subject and look for further information in the industry and company data. Students should be divided into groups to offer a better chance for brainstorming and sharing of different opinions within the group prior to in-class discussion. When in class the professor should aim to go follow the schedule below:

Table 1: Teaching Strategy Suggested Timings

1. Overall Picture of the Case	10 minutes
2. Industry Analysis	20 minutes
3. Group Beneteau Analysis	20 minutes
4. Answering the discuss questions	40 minutes

1. Overall picture of the case (10 minutes)

- What topic is the case about? What is the main focus of analysis of the case? The professor should present the discuss questions and target the focus of the students to the sustainability trends within the industry and its analyses within the company. Each group should be able to share a short overview of the case and some keywords.

2. Industry analysis (20 minutes)

- Each group should present an industry analysis with a focus on market trends and perspectives for the future within the industry. The idea is that the whole class gets an accurate perspective of how the industry works and what are the key issues in terms of sustainability, before moving on with the key market player analysis.

3. Group Beneteau analysis (20 minutes)

- Each group should present its findings and build an opinion regarding the overall performance and strategy of the company to tackle the issue of sustainability. The groups should be able to provide feedback regarding points to improve and to keep.

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4. Answering the discuss questions (40 minutes)

- Each group should prepare a small presentation to answer the discuss questions using the data on the case. Presentations should be prepared before the class. The professor should give a 5 minute break between the Group Beneteau Analysis topic and the presentations for students to have the opportunity to update it with any additional information or opinion needed.

Total Time: 90 minutes

The analysis and discussion of this case should be prepared in groups with a maximum of five elements per group. Recommended group size is of 4 students.

2.6 Suggested Answers to the discuss questions

1- What are the main drivers for the growth in the boating industry?

The boating industry has always been driven by innovation. While when boats first appeared they were seen as a luxury only at reach to the upper class, nowadays most of the players in the recreational boating industry are trying to increase the products offered to reach more people from different social environments. This, aligned with the everchanging mindsets and mass consumerism, has generated big growth within the industry. To better analyze the different drivers it is important to separate them into two different categories: Product innovations and Social Improvements

- **Product innovations:** The evolution of the products offered by the different competitors on the market has most likely been the most important driver for growth within the boating industry. Boating has started as an upper-class activity, only to be practiced by the royalty. When **outboard motors** appeared, they facilitated the expansion of the activity to other social strata of society and the slow start of boating massification. This improvement in the power source made for a more accessible market but the massification was still dependent on other variables such as the durability and usage of the boats. While no innovation appeared, it is important to note that the creation of institutions that would support further developments in the industry were also a crucial base for the progression of the industry in the following years. “The National Outboard Association” and “The Marine Trade Association” provided for a more organized industry which was, unfortunately, economically devastated during the two wars, building boats only for military purposes and leaving the profitable recreational part on the side. However, the war brought new ideas and with it came the **fiberglass** which would completely change the market for boat building. This innovation would allow for better efficiency on the process as it was easier to work than other materials, but also for improvements on the durability and cost of the final product. Lower costs would lead to higher margins on the supplier side but also to lower prices faced by demand, which alongside the improvements in durability, drove the industry to massification. As mentioned in the case “In 1950 the number of registered boats was approximately 450,000 – by 1960, the industry was producing a similar number of boats per year” which represented an enormous change within the industry and led to the growth of the key market players. During the years after, the industry continued to see major innovations on the engines which continued to allow for growth and reaching of unexplored markets. More recently the usage of **carbon**

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fibers is allowing for some growth in the luxury recreational market, since boats are more expensive but the demand for high performance and sophisticated crafts keeps increasing with it.

Looking to the future it appears that some innovations and changes might play an important role to promote the industry growth. They are: the legalization of **usage of ethanol fuel** during summer days which will positively impact sales; the increase in the market for **diesel engines**; improvements in **safety devices** and changes on the end product that provide for a higher level of safety; the increasing interest for **boat renting** opportunities; and the **diversity of users** as boating is becoming more and more popular in markets that were not an option before.

- **Social Improvements:** If, by one hand, the product innovations were critical for the industry growth, the impact on companies' revenues would not have been the same if some changes had not occurred on the consumer side too. The deconstruction of society since the beginning of boat building to a more socially equal one also led for some pressure on the supplier side to explore new ideas and other variants in boat building as a driver for success. In this way, we can say that the changes in the offer were partially driven by the evolution of society.

More recently it has been noticed that the effects of the pandemic in the younger generations may also lead for changes in the mindsets and purchasing behavior of the consumers in a way that it may positively impact the industry. Millennials and post-millennials generations are showing to be more willing to practice outdoor activities such as boating, and this will have an impact in the industry for the years to come, for sure.

2- Construct a PESTLE analysis for the Group Beneteau.

A PESTLE analysis consists of studying the position of the company in its macro environment. This method describes the Political, Economic, Social, Technological, Legal and Environmental factors that impact the activity of the business.

- **Political:** there are several political factors that can influence the activity of Group Beneteau – The first one is the bureaucracy and interference in recreational goods market by the government. Secondly, it is important that the company knows the trade regulations & tariffs related to boats. Thirdly, and as mentioned in the case, taxation (tax rates and tax incentives) is critical for the company to analyze its profit margins and to anticipate any taxes that might hurt its activity. Then fourth factor could be the industry safety regulations as it will impact the company production process and its flexibility and capacity to innovate. Lastly, giving the company size, Group Beneteau should keep a close eye on intellectual property regulations.
- **Economic:** In this topic it is possible identify the macroenvironment factors and the microenvironment factors.
 - **Macro Environment Factors** – Examples of macro factors that can influence Group Beneteau activity are: The stability and type of economic system in the countries that the Group is currently operating in; Inflation rates (that are currently a concern in the boating market); Labor costs and productivity levels in the countries in which Beneteau is basing its operation;
 - **Micro Environment Factors** – Examples of micro factors that can influence Group Beneteau activity are: Infrastructure quality level of production sites relative to its competitors; Workforce skill level which can provide a competitive advantage over competitors that are based in different countries; Efficiency levels of production sites
- **Social:** The way society behaves and the culture it follows will have an influence on the Group's structure. Examples of social factors that have this impact are: Leisure interests (boating is a leisure activity making Beneteau's success highly dependent on this factor); Skill level and demographics of the population; Education level;

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- **Technological:** The advances in technology are a critical factor to gains of competitive advantage within the industry. If a company as a technological competitive advantage in this industry it will end up being more efficient and producing either a higher quality or lower cost product, or both. Therefore, we can define some of the technological factors as: Recent developments by Benteau's competitors; The impact of technology on the product that is offered to the consumer; The impact of techonolgy in the cost structure and efficiency of the business and its competitors;
- **Environmental:** Operating in the marine industry, the company has to comply with some norms that are crucial for its brand image. The environmental factors that are more related to the company's activity are: Waste management (directly related to the company operation); Climate change; Recycling materials life cycle; Pollution regulatory laws; Different attitude towards green or ecological products;
- **Legal:** The legal background of the industry can have a big impact on the company operation. The key factors to be analyzed should be: The protection of the company image, patents and intellectual property through law, as it diverges from country to country, should be studied by the company before deciding to enter a specific market or establishing its operation in a specific country; Consumer protection law;

The goal of this analysis is to understand what factors should the company managers be looking at when evaluating different strategies.

3- Provide information as to how Group Beneteau tackled the issue of environmental sustainability over the last 5 years?

Being one of the top Group's on the market has made Beneteau obliged to set an example concerning the environmental sustainability component of the business. Other industries are ahead in terms of tackling the issue, and the key market players in the boating industry are aware of this, so they decided it was important to start showing some actions that would promote this progress. During the five years studied, the company has built a plan to tackle the main problems. In this plan a materiality matrix was included that would set the priority level for each action. In the first tier the company included **deconstruction** and **reducing the raw materials level**. In the second tier the main topic was **energy**, savings and efficiency. The third and last tier, that set the lower priority tasks of the plan included the topic of water, as for **water waste** and **water savings**.

If we analyze the Group's performance by the priority levels we can see some improvements during the years of 2016 to 2019 that were shown through the Corporate Social Responsibility report for 2018-2019:

- **Priority 1** – Taking into account the 3 core materials used in the operation of the company: resin, gelcoat and timber; we can see a decrease of 17,5% in the usage of gelcoat. This is a positive aspect and was achieved by higher efficiency machines, therefore showing that the company has invested to produce a less harmful end product. However, waste control, which can also be added to the tier one of actions to be taken, has presented a negative evolution as the total waste of the Group and its subsidiaries increased by 25%. Despite the fact that most of the increase is justified by non-hazardous waste, the negative impact is still high considering that the reduction in waste per million of hours worked has only gone from 1,806 in 2016 to 1,726 in 2019, therefore making it impossible for the company to justify increasing levels of waste with increasing hours of work, while not being proportional. Waste management has the following goals within the company: Increasing recovery rate for valuable materials; Reducing materials consumption to ensure effective control over waste and adopting solution to reduce transportation of waste.

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- **Priority 2** – Concerning the energy efficiency goal the company data released in the report shows a decrease in the electricity and gas consumption. Not only this, but also the CO2 emission of the company are showing a downward slope which is positive. These changes are due to ventilation optimization, centralized monitoring of energy and usage of thermal insulation methods for the production sites.
- **Priority 3** – Water consumption was also subject to evaluation. The best way of studying this was to check the consumption levels per million hours worked which decreased 32,5% during the period.

Considering the actions taken by Group Beneteau, the overall picture of the efficiency of the initiatives taken by the company was still dubious during the period of analysis. The impact of the waste control management during these years is surely negative for the image of the company in terms of its evolution in a more sustainable environment, especially because it has defined Waste Management as a priority 1 issue to tackle. However, it is important to understand that the Group has done some investments to improve on the sustainability issue which also goes according to what it planned to do in 2016.

We can state that Beneteau has had a positive evolution over the last years which were important to prepare the action plan for the period 2020-2025 and to boost internal willingness to improve on the sustainable side.

4- Build a SWOT analysis for Group Beneteau in the quest for sustainability.

Group Beneteau is seeking to be a market leader when it comes to developments in the sustainability areas. It has come up with different solutions and developed a variety of mechanisms to help the company achieve a good level of sustainable environmental development. Its program for achieving and contributing to the Sustainable Development Goals is subject to Strengths, Weaknesses, Opportunities and Threats, hence the necessity to produce a SWOT analysis of the company.

- **Strengths:** 1) First mover advantage given its 2) capacity to invest in new technology and processes; 3) Infrastructure capacity to accommodate different developments that may emerge from competitors; 4) Consumer trust
- **Weaknesses:** 1) Exposing of the company operations and processes; 2) Contradiction of the company trends relative to the industry trends that may lead to a decrease in consumer trust levels. 3) High number of initiatives that may contribute to a lack of focus on a specific topic;
- **Opportunities:** 1) Early entrance in rising markets such as the hydrogen fueled boats market; 2) Acquisition of companies that will positively contribute to the evolution of the sustainability indicators; 3) Creation of more efficient methods that provide for a competitive advantage relative to its competitors;
- **Threats:** 1) Possibility for a high number of substitute products or innovations;

5- Relate the Group Beneteau strategic plan to the United Nations Sustainable Development Goals.

Over the last years, the Beneteau Group has committed to target the following Sustainable Development Goals:

- Good Health and Well-being
- Quality Education
- Gender Equality
- Clean Water and Sanitation
- Affordable and Clean Energy
- Decent Work and Economic Growth
- Industry, Innovation, and Infrastructure
- Reduced Inequalities
- Sustainable Cities and Communities
- Responsible Consumption and Production
- Climate Action
- Life Below Water
- Peace and Justice: Strong institutions
- Partnership for the goals

If we take a deeper look at the most relevant goals given the company activity it would have to be: 1) Industry, Innovation and Infrastructure; 2) Life Below Water; 3) Responsible Consumption and Production; 4) Affordable and Clean Energy;

- 1) **Industry, Innovation and Infrastructure:** As a market leader, Beneteau plays a crucial role as a product innovator and infrastructure developer that highly contributes to the industry development. Its investments within the sector may challenge other competitors to level up in technology, production processes and materials used, that may contribute positively to the industry sustainable growth.

- 2) **Life Below Water:** Setting the example is extremely important for Beneteau. Regarding this goal in specific, Beneteau would be looking to improve its engine propulsion systems, developing products that are less pollutant for the environment and specially for the ocean. This relates with the 2 goals set by the Group of reducing the consumption of fuel and co-designing alternative propulsion solutions.

- 3) Responsible Consumption and Production:** As a key market player Beneteau is responsible for setting some values within the industry. The target for this goal is to do more and better while using less. Through its capacity to invest, Beneteau is capable of creating mechanisms to reduce waste levels and develop processes that require less raw materials while managing them in a more efficient way.

- 4) Affordable and Clean Energy:** As seen in the case, one of Beneteau's target goals for its Strategic Plan is the continued improvement of energy efficiency which is highly correlated with an improved system of energy management that will make it more affordable.

6- **In which sectors is Group Beneteau aiming to strategically invest in order to reduce its production footprint in the environment?**

In 2020, Group Beneteau launched a Strategic Plan “Let’s go Beyond”. The plan takes into account sustainable growth, meaning to grow the business while keeping a lower impact on the environment. Following on the 2016 vision of the company, some goals were defined for the years of 2020 to 2025 aiming at improving sustainability within the business.

- **Reducing fuel consumption** is one of the major goals of the company for the period. However, we have seen that within the industry the consumption of fuels trend is going to continue through the following years, so it will be interesting to see how the Group handles this process and also what will the impacts be on the business and on the market of this disruptive choice.
- While aiming at lower fuel consumption levels, the company also pretends to **co-design the alternatives** to be used. Hydrogen is one of the main substitutes for fuel and the one that is currently being looked at with the most attention, nevertheless some other power generators such as wind, solar and nuclear sources are being studied. By co-designing these alternatives, the company is not only aiming to improve on its global sustainability levels, but also to be a pioneer on the market for these innovations again, positioning the company for the future.
- The goal for **reducing water waste** will be kept as the Group will continue to invest in systems that allow for better water waste management. Along these lines there is also the continued aim to **improve energy efficiency** and **reducing polluting emissions**.
- There is also a new goal for **limiting the impact of transportation** on the environment for the following years.

On the institutional side, the company is aiming to sign up to the United Nations Global Compact, an initiative that promotes the adoption of corporate responsible politics and environmentally friendly measures.

7- Create the general customer profile for the recreational boating industry with the information provided in the case.

There are several approaches for designing a customer profile. In this answer we will use the Psychographic Approach as it is the one that adapts better to the boating industry, analyzing the customer profile through its Lifestyle and Demographics; Activities, Interests and Opinions; Values, Attitudes and Social Class. Other approaches such as the Consumer Tipology Approach focus on whether the consumers are loyal, discount sensitive, impulsive or need-based which would not provide as much info as the Psychographic Approach in this case.

Analyzing the industry customer profile:

Table 2: Customer Profile through the Psychographic Approach

Age	Biggest proportion of buyers within the 40-65 years old gap; Only 16% of the market buyers are below 40 years old;
Location	Proeminent markets are: Europe and North America; Customers tend to be closer to the coastal line or have accessibility to lakes;
Gender	There is a higher proportion of men buying boats than women; The gap between the two genders is decreasing as more women are becoming buyers;
Activities, Interests and Opinions	Interest for outdoor activities;
Values and Attitudes	Rational decision makers towards buying decisions; Value quality products; Usually has a high purchasing power;
Social Class	Medium to Upper Class;

2.7 References

CARREÑO, A. AND LLORET, J.

Environmental impacts of increasing leisure boating activity in Mediterranean coastal waters

In-text: (Carreño & Lloret, 2021)

Your Bibliography: Carreño, A., & Lloret, J. (2021). Environmental impacts of increasing leisure boating activity in Mediterranean coastal waters. *Ocean & Coastal Management*, 209, 105693. doi: 10.1016/j.ocecoaman.2021.105693

ETHICS & COMPLIANCE - GROUPE BENETEAU

In-text: ("Ethics & Compliance - Groupe Beneteau", n.d.)

Your Bibliography: Ethics & Compliance - Groupe Beneteau. Retrieved from: <https://www.beneteau-group.com/en/values/>

LEARN HOW BENETEAU BUILDS BOATS

In-text: ("Learn How BENETEAU Builds Boats", 2022)

Your Bibliography: Learn How BENETEAU Builds Boats. (2022). Retrieved from <https://www.beneteau.com/us/newsroom-news/learn-how-beneteau-builds-boats>

BOAT BUILDING - WIKIPEDIA

In-text: ("Boat building - Wikipedia", 2022)

Your Bibliography: Boat building - Wikipedia. (2022). Retrieved from https://en.wikipedia.org/wiki/Boat_building

LET'S GO BEYOND! STRATEGIC PLAN FOR 2020-2025

In-text: ("Let's Go Beyond! strategic plan for 2020-2025", 2020)

Your Bibliography: Let's Go Beyond! strategic plan for 2020-2025. (2020). Retrieved from <https://press.beneteau-group.com/news/lets-go-beyond-strategic-plan-for-2020-2025-4ac1-49529.html>

MANAGING NONPOINT SOURCE POLLUTION FROM BOATING AND MARINAS |
OUTREACH & COMMUNICATION | US EPA

In-text: ("Managing Nonpoint Source Pollution from Boating and Marinas | Outreach & Communication | US EPA", n.d.)

Your Bibliography: Managing Nonpoint Source Pollution from Boating and Marinas | Outreach & Communication | US EPA. Retrieved from <https://archive.epa.gov/water/archive/web/html/point9.html>

RECREATIONAL BOATING MARKET | 2022 - 27 | INDUSTRY SHARE, SIZE,
GROWTH - MORDOR INTELLIGENCE

In-text: ("Recreational Boating Market | 2022 - 27 | Industry Share, Size, Growth - Mordor Intelligence", 2021)

Your Bibliography: Recreational Boating Market | 2022 - 27 | Industry Share, Size, Growth - Mordor Intelligence. (2021). Retrieved from <https://www.mordorintelligence.com/industry-reports/recreational-boating-market-growth-trends-and-forecast-2021-2026>

TRENDS SHAPING THE BOATING INDUSTRY OUTLOOK IN 2022 BY LINCHPIN SEO

In-text: ("Trends Shaping The Boating Industry Outlook In 2022 By Linchpin SEO", 2022)
Your Bibliography: Trends Shaping The Boating Industry Outlook In 2022 By Linchpin SEO. (2022). Retrieved from <https://linchpinseo.com/trends-boating-industry/>

2022 FORECAST: GROWTH ON THE HORIZON DESPITE CHALLENGES

In-text: ("22 Forecast: Growth on the horizon despite challenges" by Adam Quandt, 2022)
Your Bibliography: 22 Forecast: Growth on the horizon despite challenges by Adam Quandt, (2022). Retrieved from: <https://boatingindustry.com/features/2022/02/16/2022-forecast-growth-on-the-horizon-despite-challenges/>

AN OMINOUS AGE GAP

In-text: ("An Ominous Age Gap by Reagan Haynes, 2017)
Your Bibliography: An Ominous Age Gap by Reagan Haynes (2017). Retrieved from: <https://www.tradeonlytoday.com/dealers/an-ominous-age-gap>