LES HENOKIENS CASE COLLECTION

AUGUSTEA

* This case was prepared by Prof. Salvatore Tomaselli Ph.D. as the basis for class discussion, rather than than to illustrate an effective or uneffective handling of an administrative situation.

Introduction and Motivation: Objectives of the case study and key questions

There are many exciting things to find in the Augustea and Cafiero-Zagari Family story, especially the topics students interested in Family Businesses can learn from: link with the history and culture of the region, strategy, and never-ending innovation, values passed from generation to generation.

The main research questions, which we approach, are listed below:

- *How have the family and the firm evolved, especially during the 10th, 11th, and 10th generation (relating also to industry and market developments)?*
- How *has the structure of the group evolved, and why?*
- *In what do the business and the family show their resilience and anti-fragility*
- *How has the family coped with the many changes and challenges characterizing the industry's evolution?*
- *How have the family, ownership, and governance structures, as well as mechanisms, evolved over the last decades?*
- *How have the succession processes in ownership and management been managed?*
- *What is the vision and strategy for successfully and sustainably managing family-related and business-related goals to survive for so long and across different generations?*
- *How does the international outlook of the firm look like? What are the plans for the future?*

1. Augustea: sailing the waves of the oceans for centuries

Meta di Sorrento is a small, wonderful marine city facing the Gulf and the City of Naples, with the Vesuvio Vulcan Mountain on its right. The Augustea's origins are rooted in this magnificent area and embedded in its maritime tradition and culture. Augustea is a Family Business, controlling companies mainly operating in the segments of dry bulk shipping, deep sea towing services, and transportation with oceanic barges. The group continues the tradition of a family whose navigation activity has developed for centuries in Meta di Sorrento and Barletta, in Southern Italy.

The activism and solidarity of the Cafiero in the Meta area are preponderant, as demonstrated by the "Monte Cafiero" (1629), the "Monte dei Marinai Schiavi" (1719), the "Società dei Padroni di Bastimenti" (1798), the First and the Second "Compagnia Metese di Assicurazioni e di Cambi Marittimi" (founded between 1825 and 1831), the "Mutua Sorrentina" (1863).

Under the control of the Cafiero-Zagari families, over the decades, Augustea Group has grown to become a leading and reputable player in the shipping industry, with offices/operating branches in Naples and Augusta (Italy), London, Singapore, Malta, Buenos Aires, Philippines, and Colombia.

1.1. The origins and historical perspective

The branch of the family that gave birth to the current Augustea Group descends from Pietrantonio Cafiero, shipowner from Meta di Sorrento, who carried out the traffic of goods on behalf of the Royal Court, extending its fleets to Spain and France.

His father, Costantino Cafiero, in 1759, when Charles of Bourbon left Naples to take the crown of Spain, transported the luggage of the royal family to Barcelona and then to Alicante.

In 1629 Pietrantonio Cafiero set up a charity fund to pay ransoms to pirates who kidnapped sailors in the Mediterranean Sea.

CHIESA GENTILIZIA DEI CAFIERO IN META DI SORRENTO
LAPIDE DI FONDAZIONE

A century and a half ahead of Lloyd's, the most famous insurers in the world - who will inaugurate something similar only at the end of the eighteenth century - Pietrantonio Cafiero decided that a shipowner, an activity that his father and grandfather already practiced for decades, can combine business and philanthropy. He thought of hubs, helmspersons, boatswains, sutlers, all the people who struggle on board their sailing giants and often pay for the ferocity of the sea or pirates. It gives life to the "Monte della S.S. Annunziata", later known as Monte dei Cafiero. To those unnecessarily waiting for a husband or a sailor father, the fund guaranteed some resources to live off. To save the lives of those who are hostages of the marauders, the fund paid a ransom.

Pietrantonio's entrepreneurial and solidarity spirit found continuity in his son Salvatore Cafiero (1778). Married to Teresa Cafiero (1793), daughter of Antonio Cafiero, he was the first Director and the main shareholder of the First Insurance Company and Maritime Exchanges of the Sorrento Plan, founded in 1825 to protect the members from the risks of navigation and finance the maritime activity through maritime exchange loans, guaranteed by the ship's body and tools. Among the members were sailors, shipowners, and captains but also people not related to maritime activities, such as priests and doctors.

Also, at the beginning of the nineteenth century, Salvatore Cafiero founded the local "Società Mutua Marinai" aiming to share the risks faced by sailors during long navigation and, subsequently, became Director of the Shipping Company of the Steamers of the Sorrento Peninsula.

Salvatore's son, Salvatore Michele Cafiero (1833-1905), known as o' luongo 'e Masano, is the best known figure of this family. From his marriage to Maria Laura Lauro (1841), a member of another large shipowning family originally from Piano di Sorrento, he had eight children: Pietrantonio Cafiero (1873-1930), Leopoldo Cafiero (1875), Raffaele Cafiero (1876-1957), Oreste Cafiero (1877), Lauretta Cafiero (1879), Teresa Cafiero (1880), Rosa Cafiero (1881) and Adele Cafiero (1883).
At his death, his sons continued to carry out the family ship-owning activity, arming the inherited ships.

It was a period of great changes in the maritime and ship-owning sectors. With the sunset of sailing and wooden shipbuilding, the Cafiero, like many other shipping companies, had to reinvent their business and try their hand at steam navigation.
The successes achieved by the family had such notoriety that, in 1850, the maritime interests of the Cafiero were registered in Lloyd's Register of Shipping, established to improve the safety of life, property, and the environment, promote the quality of construction and activity of ships and ports.

Pietrantonio Cafiero (1873-1930), married to Maria Laura Lauro (1880-1918), had five children: Maria Cafiero (1908-2004), Salvatore Cafiero (1909-1982), Rosa Cafiero (1910-2004), Raffaele Cafiero (1912-1978) and Leopoldo Cafiero (1915-2006). Two of the representatives of this generation, Leopoldo (1915-2006) and Salvatore (1909-1982), employed their skills in the service of the Lauro family: Leopoldo as commander of an ocean liner of the Lauro Fleet and Salvatore as manager and collaborator of Achille Lauro.

Salvatore Cafiero (1909-1982), from his marriage to Giuseppina Esposito (1910-1994), had four daughters: Maria Laura (1941-2008), Paola, Sandra and Bruna. Leaving the Lauro group, in the fifties of the XXI century Salvatore became the owner of his own fleet and acquired the fleet of Angelo Scinnicariello, operating already in 1880 with cargo ships and tankers.

In the post-war boom, the Augustea fleet of sturdy tug boats operated amongst the fast-growing petrochemical ports of Augusta and Syracuse on the east coast of Sicily, the largest refining hub in

the Mediterranean. In 1964, Salvatore Cafiero diversified into the deep-sea shipping and continued to develop both businesses until the end of his long and productive life, in 1982.
Salvatore led the growth of the Group until his death, with great resourcefulness, developing the activity of offshore towing, deep seas towing, and salvage ships, initially carried out in the port of Augusta.

The purchase of new ships and the stipulation of alliances for the concession of towing services in ports of high strategic importance such as Milazzo, Syracuse, Catania, La Spezia, and Civitavecchia have allowed increasing turnover and, above all, to acquire new skills.

When Salvatore died, the control of the group passed into the hands of his daughters Maria Laura, Paola, Sandra, and Bruna. Diversity of views led the four sisters to the group's division, through a series of corporate splits between 1982 and 1997.
In the division, Paola - the second daughter, married to Lucio Zagari - acquired control of the part of the group headed by the "Augustea Imprese Marittime e di Salvaggi" – or, simply, "Augustea".
In 1987, Lucio Zagari became CEO of Augustea Group, and indeed, the Zagari family now own and control the Augustea Group.

The original nucleus of the group headed by Augustea was established in 1955 by Salvatore Cafiero. In the beginning, its main activity was the port trailer. Later, the group's activity was diversified, extending to the transport of dry bulk and transport by ocean barges.

Over the decades, the Group has grown so much to become one of the most important international and world players in the shipping sector, reaching 15 operating branches (Augustea Atlantica S.p.A., ABM Two Ltd, Augustea Grancolombia S.a.s., Augustea Bunge Maritime Ltd, Augustea Tecnoservice S.r.l., Augustea Technoservices Ltd, Augustea Manning Philippines inc, Augustea Shipping Services Ltd, Augustea Holding S.p.a., Augustea Maritime Transportation Ltd, Augustea Med Ltd, Augustea Marifran S.a., Augustea Ship Management S.r.l., Augustea Maritime Transportation Ltd, Augustea Pacific pte Ltd, Augustea Oceanbulk Maritime Malta), with a fleet of about fifty ships of different types.

The growing international competitiveness and the deep and consistent process of concentration in the shipping sector put a strain on the survival, especially of family businesses, often too small and not financially equipped enough to support the comparison with leading competitors from all over the world, then an increasingly dynamic and competitive market environment, which pushes companies to review and renew their entrepreneurial formulas.

In 2010 Augustea Holding was established, whose main activity consists of providing accounting, finance, treasury, management control and internal audit, IT, and human resources services to the Group's operating branches. The company's president was Lucio Zagari.

1.2. The 12th generation: surviving in difficult times, through industry restructuring, repeated economic crises and much more

Raffaele Zagari, 53 years old, a member of the twelfth generation and nephew of Salvatore Cafiero (son of Lucio Zagari and Paola Cafiero), took over the role of CEO of Augustea Holding S.p.A . in 2015.

Raffaele's relationship with the family business goes back to 1993, when he went to Japan as a junior supervisory team member at the shipyards where the group's ships were built. Then he went to London, where he worked in the commercial area in the company operating dry bulk carriers and

oil tankers. Later, he left the group and worked for Zodiac Maritime, a shipping company owned by the Ofer, an Israelian family. Zodiac was probably the most prominent private group in the maritime sector worldwide. Raffaele's position was in the post-fixing, a back office activity.

Between 1996 and 1997, at the time of the final separation between Salvatore's descendants, Raffaele joined again the family business, based in Italy for some time. Under the supervision of a senior manager, he worked in the shipping division. In these years, Raffaele started a new business area in freight trading.

In those years, derivative contracts entered the industry. Derivatives – mainly in the Over the counter (OTC) form - had an enormous development until 2008, when the financial crisis caused tremendous trauma, with many bankruptcies and substantial financial losses. Nowadays, contracts are almost all Cleared.

After a few years in Italy, Raffaele moved again to London, his favorite place and elective homeland. From there, he managed the shipping branch's commercial, operations, and execution areas; he also started a rich sequence of collaborations and joint ventures, often with more prominent and better-organized groups. Participating in these networks fomented a modern, richer, and more accurate risk management culture, allowing the Augustea Group to perform better than many other competitors during the 2008 crisis.

In 2015, amid dramatic changes in the sector, Raffaele took over the role of CEO of Augustea Holding S.p.A. He is the protagonist of a consistent and ambitious reorganization project of the Group, aimed at ensuring its continuity, abandoning the business areas in which the processes of concentration on a global scale make it impossible for small or medium-sized companies to survive. At the same time, it consolidates the Group’s presence in the sectors in which it can best express its presence through strategic alliances with other first-level operators in the markets covered by the group. Finally, it develops the brokerage activity on freight, leveraging the group's broad experience.

2. The Marine Transportation Industry in Campania

2.1. Introduction

The Augustea Group originates in Meta di Sorrento, in Campania.

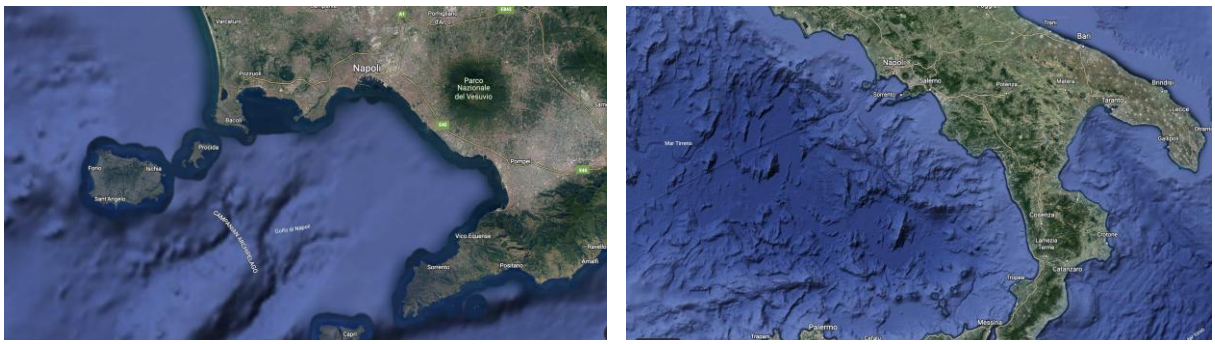


Image from Google earth

Campania is a Southern Italian region with a strong maritime culture, which has been consolidated over thousands of years between historical, economic, political and geopolitical events. Sorrento has been home to one of the oldest communities of sailors in the world, as the area has always been

an important shipping centre from ancient Greek civilization to Roman times to today. (Bennedsen & Henry, 2019).

Large maritime, ship-owning, and shipbuilding business realities have concentrated in the coastal territories of the region, exploiting their infrastructures and thus contributing to the creation of the so-called "maritime clusters", basins of knowledge and technological innovation. Also, highly specialized workers have supported local companies in consolidating international relations, which, in turn, fed the same cluster of further and new knowledge.

2.2. Maritime activities in the economy of Campania

Campania, the first region in the South of Italy for income produced, with a GDP of over 100 billion, is characterized by a robust maritime identity, evidenced by the many entrepreneurial families of ancient and historical maritime tradition in the area.

At the end of the eighteenth century, the communities of the Gulf of Naples were intensely engaged in maritime activities. They played a leading role in resuming trade in the Mediterranean on the routes that connected the Adriatic and the Ionian to the Tyrrhenian Sea to transport agricultural products from Southern Italy and the Levant to the ports of Western Europe. The Campania fleet competed with the major and established European navies.

Even in the nineteenth century, the Neapolitan Gulf stood out for its high competitiveness. In fact, the operators of the Neapolitan navies' option for deep-sea vessels allowed them to enter the prosperous Mediterranean and oceanic routes, unlike the other provinces of the South, mainly dedicated to fishing and cabotage vessels.

The fundamental role that maritime activities still have today in the economy of Campania is documented by the position occupied by the region in the national ranking of the index of intensity of maritime activities. (Camerano et al., 2020, p. 15)

Campania ranks in the first position for the weight of the ship-owning fleet. Of the 471 ship-owning companies registered in Italy, 115 are based in Campania, and they own about 34.2% of the ships in the country for the transportation of both goods and passengers. Campania ranks second, after Liguria, for the weight of maritime activities in the Italian economy, with an index of 73, and is in third place regarding ports and maritime transport. (Censis 2011)

2.3. The Marine Sector in Sorrento

The Sorrento Peninsula is one of the Campania resorts with a rich maritime tradition whose birth and flourishing were fomented by necessity. Since ancient times, local populations have felt the need to overcome physical isolation. The orographic characteristics of the peninsula made it almost impossible to exchange by land until Joachim Murat built the first communication routes during his reign (1806-1815). Murat's interest in better communication in the area descended by the assignment he received to reconquer Caprì, under the control of the English navy. The best observation point from the coast to this aim is on the extreme lip of the peninsula, where Murat built a wonderful manor. The routes allowed to speed up the connections and communication between the villa and Murat's headquarter.

The isolation that lasted for centuries and the absence of the services of a large organized city, such as London, led the Sorrentine populations to create their institutions (banks, insurance companies) firmly rooted in the territory.
During the eighteenth century, the Sorrento navy stood out for the countless successes in commercial navigation achieved by the exponents of the bourgeoisie of the maritime centers of the peninsula.

It was precisely in this period that the Sorrento navy entered the maritime trade in the Mediterranean, specializing in the trade of wheat from Puglia and Sicily. (Maresca & Passaro, 2011)

In the Napoleonic era, close contact with the most modern French construction techniques favored the construction of new types of boats, such as brigantines and schooners, more suitable for Atlantic navigation, on the routes that connected the Mediterranean to Northern Europe and the American continent.

Since the age of the Restoration, the Sorrento merchant navy acquired considerable vitality: between 1818 and 1850 the number of boats tripled and in 1833 the Sorrento shipowners (of Meta and Piano) owned over half of the offshore vessels.

The nineteenth century was the period of the great iron and steel sailing ships, whose supply took place on the European market, preferred for their greater load capacity and lower cost.
The period before the First World War was the last moment of glory for sailing; the Germans sunk many sailing ships during the conflict.

Meanwhile, the wooden shipbuilding of the Sorrento Peninsula began to have marginal uses, increasingly replaced by naval mechanics (feluccas, goiters, motorboats); the development of the tourism sector pushed a growing demand for the internal navy specialized in inland navigation in the Gulf.

The crisis of wooden constructions and the emergence of steam navigation had their most disastrous effects in Meta, where the maritime professions were more concentrated, particularly the officers, which in Meta were more numerous than in other areas. This situation represented the opportunity for creating a mutual aid association, called "Sorrento Association of Mutual Aid between Captains and Machinists", aiming to ensure its members subsidies in case of illness, loss of work, or "kit" in case of shipwreck.

The evolution of boats primarily affected the growing demand for experienced subjects with consolidated technical knowledge. In fact, since the nineteenth century, the methods of design and navigation were no longer the exclusive heritage of the maritime families, handed down from generation to generation, since for the use of the construction plan, for the delineation of the sail plans and the execution and use of stability calculations, technical-scientific knowledge was required that only professional figures of shipbuilding could possess.
However, the transition from sailing to steam caused a profound restructuring of the sector, and only a few of the oldest ship-owning families successfully embraced the transition. Among these, the Lauro, the Cafiero-Scinicariello, the Montella, the Longobardo, the Romano, the Bottiglieri. New actors joined these.

3. The Marine Transportation Industry, evolution and economic trends

The evolution of marine transports and the ship-owning sector has been largely influenced by the progress of the boats as a result of the processes of development and innovation of on-board technologies and instruments that have determined the transition to more efficient and safe boats also depending on the type of navigation.
Activities and specializations within the sector range from passengers to goods of the most various nature, and the vitalism of the different sub-sectors is largely influenced by global economic trends.
Augustea is active the transport of dry bulk and transport by ocean barges and in towing.
The current section of the case covers the evolution of boats, and the economic trends of the sector, with a focus on the sub-sectors in which Augustea concentrates its activities.

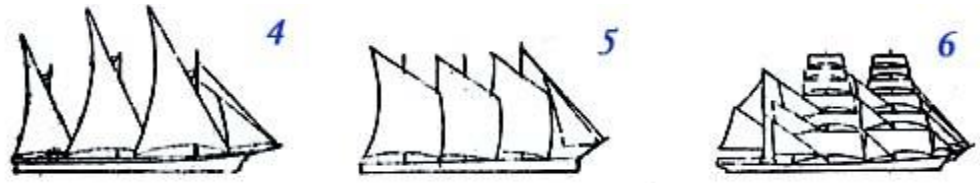
3.1. The evolution of boats

The ship and its history are closely linked to the need to transport goods and persons on the water. In the beginning, human beings straddled a tree trunk to move to the other bank of the river. So they created the ancestor of the raft. Later on, they dug the trunk internally, and the dugout was born. A branch used to push the pirogue inspired the design of the first oar. Finally, the sail was added.
Since then, almost any civilization has used ships with different propulsion systems, shapes, and sizes.
Sailing is one of the oldest propulsion systems in the water of ships and boats. Also, it has been dominant for long-range transport for many centuries.

Over the centuries, different types of sailing ships have been experimented:

1. Pole ship: vessel with four vertical masts; the first three with square sails and the use, that of stern, with auric sails, armed with mainsail, counter-bow and bowsprit;
2. Ship: three-masted vessel with square sails and bowsprit, small mainsail with a half-mast and bow bows;
3. Pole schooner: vessel with three masts slightly inclined at the stern, all with auric sails, and with some square sails at the first two and bowsprit, armed with mainsails, counter-arches and bows at the bow;

4. Xebec: ship with three trees inclined slightly in the bow; the mast of trench and maestra with Latin sails, that of mezzana with mainsail;
5. Lugger: vessel with two masts carrying sails to the third and trabaccolo, and sometimes one of the two a mainsail; it has a bow rod with polish and counter-polish;
6. Pole brigantine: three-masted vessel with square sails to the trench and the master, mainsail and counter-branch to the half-mast, and bows to the bow;

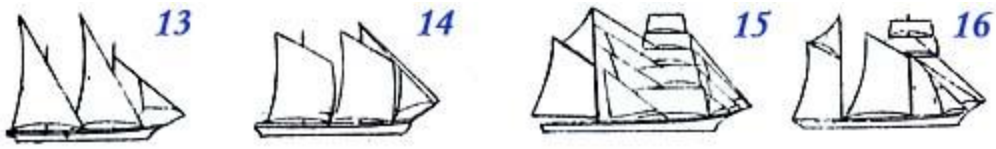


7. Schooner ship: vessel with three masts: that of trinchetto with square sails, the other two, that of maestra and mezzana with auric sails, with bows at the bow;
8. Sailboat: ship with three masts: that of trinchetto with square sails and those of maestra and mezzana with Latin sails, with bows at the bow;

9. Mystical: three-masted ship with square sails to the trench, with Latin sail to the master mast and mainsail to the mezzana mast and with bows;

10. Brigantine: two-masted vessel with square sails and bowsprit;
11. Schooner: vessel with two slightly inclined masts at the stern, with auric sails, except for the trinchetto one which may have some square and bowsprit sails;
12. Pole cutter: vessel with a large mainsail with a trench mast and a small mainsail at the stern and with bows;

13. Felucca: two-masted ship with Latin and Polish sails in the bow and a few bows;
14. Lugger: two-masted vessel with sails on the third or fourth and with bow bows;
15. Schooner brigantine: ship with two masts; the mast of trinchetto with square sails, that of master with auric sails and mainsail and counter-bow and bows;
16. Gabbiola schooner: similar to the schooner, but with the addition of two square cage sails to the trench mast;



17. Bombarda (Vinacciere): similar to the Schooner Brigantine, but with the masts moved towards the stern and a greater number of jibs in the bow;
18. Bovo: ship with Latin sail with trench mast and small mainsail at the extreme stern;
19. Spacecraft (Navicello): vessel with the trench mast inclined towards the bow; it has a Latin sail and a large mainsail to the master mast and a trapezoidal sail between the two masts;
20. Cutter: one-mast ship with mainsail and counter-bow and with bow bows;
21. Tartana: ship with a Latin sail and bow bows;

22. Bovo: Latin sail at the extreme stern and mainsail at the trench mast;
23. Bilancella: ship with a Latin and Polish sail in the bow.

Source: http://www.ammiraglia88.it/sezione_normale/pagine_sito/navistoria.html

The ships in use since ancient times adopted square sails, mounted on flagpoles perpendicular to the longitudinal axis suitable for load-bearing gaits but not suitable for rising the wind. Square in shape, they are characteristic of large sailing ships.

The typical sailing ships of the eighteenth century were the tartane and the three-masted peaks with Latin sail. The tartanas, in particular, were ships with a single mast with a large Latin sail. They had a bow rod with several bows, hoisted in the bow on the bowsprit, or with polish and counter-bow.
The Latin sails are characterized by the triangular shape and are kept taut by an antenna that is diagonally hoisted on the mast.

The most experienced ship-owners also distinguished themselves for the construction of the Polacca, also known as Pollacca or Polacra). This was an evolution of the Xebec, with a more refined hull and without rowing. It had full shapes, with a wide mirror stern, armed with three masts with square sails to the master and Latin sails to the foremast and the mizzen.

Only later did the armament began using square sails, with single-piece masts, cheaper and easier to maneuver, but inadequate for long-term navigation.

The beginning of the nineteenth century saw the seas and major rivers crossed by ships moved by an innovative technology: steam propulsion. Steam imposed a new shipbuilding development, new techniques of boat construction, and a particular attention to the training of crews. The knowledge and training of professionals in this new technology, involved an economic and administrative effort to the various European navies, both merchant and military.

In the first half of the nineteenth century, however, sailing continued to play an important role, and Sorrento shipyards and ship-owners continued to use it extensively. The shipyards from Marina di Cassano in Piano experimented with the brigantine with two coffa armed masts. It was composed of three elements, mast, cage, and sail, with their respective square sails plus the auric mainsail. Such equipment was revealed to be safer and more versatile for offshore navigation.

In the second half of the nineteenth century, following the Unification of Italy, when the shipbuilding in Piano reached its maximum prosperity, the pole brigantine was adopted. It is a vessel with three vertical masts: the trench and master mast with square sails, the mizzen with auric sails, and bowsprit. In essence, the pole was a mizzen mast added to the armament of the brigantine. Whereas the English Clippers were armed with square sails, the pole had a large auric mainsail with counter-round, adding sails of rag and bows. This structure allowed a small crew and great adaptability to wind conditions.

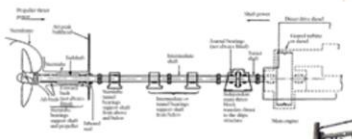
At the end of the nineteenth century, the Sorrento ship-owners began to replace the existing ships with iron and steel hulls. Armed with a powerful sail, they were equipped with a greater load capacity, and their cost was low. They were giants of the sea, up to a hundred meters long, with a capacity between 1,000 and 3,000 tons of gross tonnage. All the space was used for loading since, unlike steamers, they did not have to hold engine apparatus, boilers, and fuel storage.
However, this period coincides with the last moment of glory of sailing. In the last decades of the nineteenth century, steam propulsion (internal combustion engines) replaced wind propulsion.

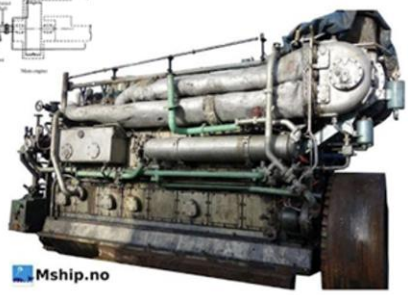
Since the first decades of the twentieth century, wooden shipbuilding has declined, dedicating itself to ships of minor importance. The first naval mechanic workshops were born, and the shipyards shifted to the construction of feluccas, goiters, and motorboats, used for inland navigation in the Gulf.

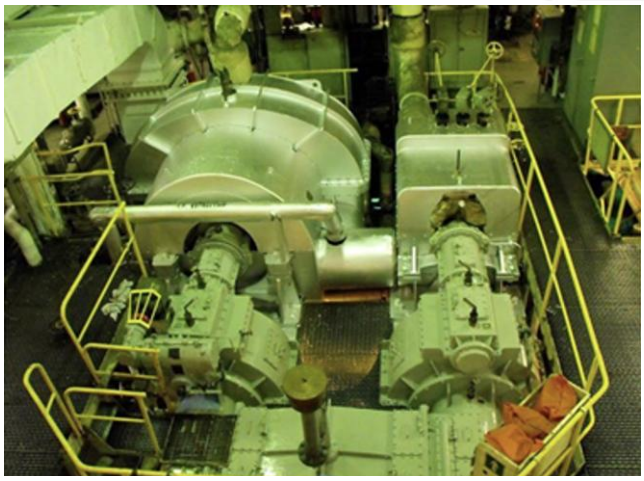
In the first half of the 1900s, maritime transport experienced other radical innovations:

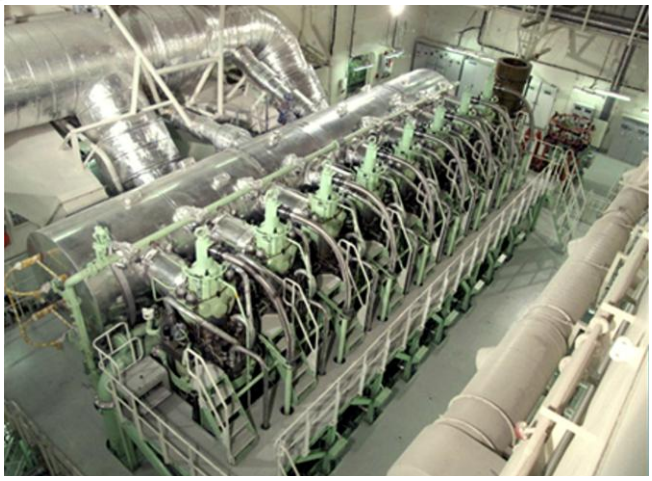
1. naphtha in steam propulsion;
2. the heavy oil marine diesel engines and low rpm;
3. high rpm internal combustion engines and, subsequently, gas turbines.

CONVENTIONAL DIESEL PROPULSION





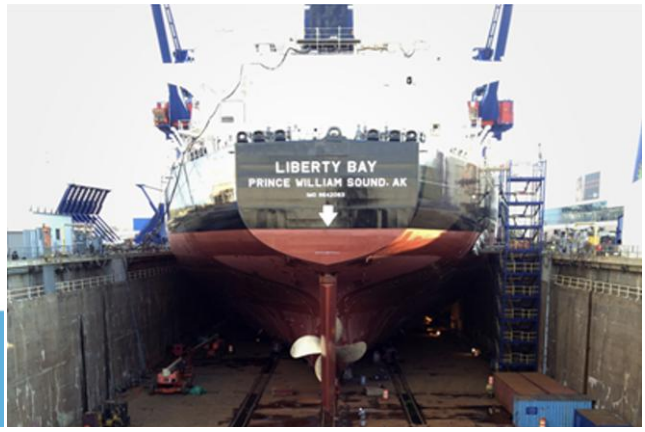




Andrea Doria affondata 1956 - sidney sostituita da achille ed angelina lauro

Non vista

Navi da trasporto passeggeri che in seguito sono state sostituite dalle navi da crociera



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3.2. Recent economic trends in the Dry Bulk and Towing Services

Over the last decade, “the global shipping industry has lost some of its lustre as the global demand for fossil fuels is falling. Ship owners and those companies like Augustea Holding that provide shipping services are watching their market shrink. According to Maritime Strategies, a shipping industry research group, total seaborne trade in oil, coal and liquefied natural gas will tumble from a peak of about 5.5 billion tonnes in the early 2020s to about 3.7 billion tonnes by 2045”. (Bennedsen & Henry, 2019).

3.2.1. Dry Bulk Cargo

Sea transport accounts for 90% of world trade. The main dry load raw materials are iron ore and coal (over 50% cumulatively), followed by grains and other minor ones, such as timber, cement, various minerals, and agricultural products.

Volumes, however, represent only one component of demand; an equal role has the so-called "Ton-mile", ie the distance traveled by a load unit: eg. the transport of coal from Brazil to China weighs on the demand for ships approx. 3 times longer than the Australia-China route, considering that the distance is respectively 11,000 and 3,500 miles.

The sector is highly competitive, an aspect that exposes operators to a series of specific risks.

The dry cargo market is highly fragmented, with more than 1,250 registered ship owners (public, private, and state-owned or controlled legal entities).

Low barriers to entry characterize the sector since anyone with sufficient capital can buy a ship and operate it through the numerous ship management companies on the market. Consequently, in recent years numerous new entities have entered the competitive arena. In many cases, they are supported by private equity funds and financial sponsors, favoring joint ventures with one or more existing owners.

The dry cargo transport sector is characterized by its cyclical nature and the volatility of freight rates, with wide variations for the different types of ships. This volatility results from variations (even seasonal) in demand and supply of tonnage (ie, transport capacity) and commodities to be transported internationally by sea.
The factors that determine demand are many: the market for energy, commodities, semi-finished products, and finished products; changes in the exploration or production of energy sources, raw materials, semi-finished and finished products; the location of supply and outlet markets; the globalization of industrial and manufacturing production; regional and global economic conditions, including armed conflicts and terrorist activities; the development of international trade; the development of environmental and regulatory standards; changes in exchange rates; climatic conditions.

Equally numerous are the variables that affect the supply of tonnage: the number of new orders to be delivered, the dismantling of old ships, accidents and the number of ships "out of service", failure to adapt the logistical structures, and consequent phenomena of congestion in ports.

The demand for ships will depend in the future on economic growth, seasonal and geographical variations in demand itself, the interrelationship between the different economies, changes in fleet capacity, and the availability of a dry cargo to be transported by sea.
Variations are not predeterminable in nature, timing, direction, and grade. Consequently, businesses' strategies must consider this.

For example, the demand for coal transport is typically more sustained in autumn and winter, especially in the northern hemisphere. However, in such periods, the weather and sea conditions could also be particularly adverse, affecting the execution of transport. Operating results and cash flows could be particularly volatile if the fleet were used on the spot market. Certainly, to a greater extent than would be the case using the means with time charter contracts.

Similarly, the possibility of (re)chartering ships because of the expiry or termination of relevant contracts and the installments payable at each renewal or replacement is conditioned, among other things, by the market contingency. For example, an economic depression at the time of expiry of the contracts could condition their renegotiation due to the reduction of the installments, with consequent repercussions on profits' volatility.

The freight market is characterized by hyper volatility, which depends on the interaction of many factors. Among them, the trend of the economies of Western Countries, China, and Emerging Countries, the prices of raw materials, the evolution of the persistent financial crisis, the effects of the COVID-19 pandemic, and, most recently, the war in Ukraine. The war between Russia and Ukraina has had and will have consequences on economic activity, trust and trade, and caused increased tensions between Western Countries, Russia, and China.

Dry Cargo freight rates started 2022 with optimism on the back of a solid 2021 performance and a positive outlook for global trade. However, expectations changed following the Russian invasion of Ukraine in late February. Since then, all forecasts have been revised downwards, but the spot freight market has remained relatively strong for small loads.

The market value of ships has generally experienced high volatility related to several factors, including the level of freight rates, economic and market conditions, the type and size of ships, demand and supply of tonnage, availability and cost of alternative modes of transport, the cost of new construction, rules and regulations, technological development.

An oversupply of available tonnage could lead to a reduction in installments and profitability. In addition, the sale of a ship at a time when prices are low could take place below the balance sheet value, with a loss and a reduction in profits. An unfavorable change in freight rates could affect the companies' profitability, cash flows, liquidity, and compliance with the covenants included in the loan contracts.

3.2.2. Towing and Special Transport Services

Traditionally, the oil market is the main driver of the demand for offshore towing services, and the oil price influences the demand for specialized vehicles to support the offshore industry and represents one of the activities' main cost items. Different and sometimes "immaterial" variables intervene in the tendency of the oil market, such as the socio-political conditions of the regions in which the exploration and drilling projects are located, situations of conflict, including armed conflicts, strikes, embargoes, and changes in laws and regulations.

Recently, the sharp increase in the number of jobs related to wind power has meant that the price of oil is no longer the only element capable of influencing the demand for means to support the offshore industry.

A reduction in investments in the oil sector could lead to a reduction in the demand for services related to the offshore industry, with a consequent negative impact on the economic dynamics of the shipping companies in the sector.

Therefore, the demand for services related to the offshore industry depends on investment decisions. Such decisions are a function of the oil price on world markets: thus, the price per barrel that must cover the forecast extraction costs is the key variable on which the future projections within each company that intends to start an exploration and production project, whose cycle is between 10 and 20 years on average, are based. On the other hand, oil prices have less influence when projects are already underway and in the production phase; the potential impact remains limited to the exploration phases, which may be delayed or even canceled.

Since 2015, the transport sector has been affected by the crisis in the oil sector. As a result of the oil price collapse, the oil majors have sharply reduced investments in research and drilling of new fields, as well as closed plants that are no longer profitable. The crisis has led to a sharp decline in both freight rates and the degree of utilization of vehicles.

An increase in the supply of tugs due to higher orders placed in the previous boom in demand and delivered in 2015 resulted in an oversized fleet compared to the real needs of operators. The crisis in demand, combined with the decrease in oil price, has led to a sharp decline in tugboat freight rates.

The market crisis has affected equally all the operators who almost entirely had agreed with the lenders to restructure the debt.

As a result of the debt restructuring with the introduction of "grace periods" in the repayment of the capital, the companies could offer lower rental rates than the other operators in international tenders, such as covering only the OPEX and the interest on the debt.
In addition to the reported problems, in recent years, the global spread of the COVID-19 pandemic resulted in a slowdown in port operations and a reduction in contractual times for hiring tugs due to the excess of offers compared to the demand. This involves short rentals with consequent difficulties in using the tugs on the days off between one rental contract and the next.

4. The Augustea Group's strategy over the last decade and the challenges for the future

Augustea's strategy can be synthesized in strengthening its reputation as a world-class innovation leader in the shipping sector. It is HSQE certified (Health, Safety, Quality, Environment), one of the first shipping companies in Italy to have earned this prestigious certification. Moreover, the company continues renewed its fleet on a regular basis so that the average age of its vessels is only six years old (Bennedsen & Henry, 2019).

4.1. From 2010 to 2021

Over the last decade, the Group has been the subject of a deep and articulated restructuring project, aiming at a strategic reorientation of the Group through a sequence of corporate operations (demergers, disposals, acquisitions, transformations, and constitutions of new companies). As a result, while the Group is still engaged in maritime transport, ship charters, and related activities, on the one hand, and in off-shore towing services, on the other hand, its composition and size and its geographical positioning changed significantly.[1]

In Raffaele Zagari's vision the risk associated with the high volatility in the industry exceeded the capacity of the Group. To lower the risk, and secure the future of the business, he decided to abandon the port towing activities a sector characterized by excessive bureaucracy.
In April 2016, Raffaele Zagari sold the company's fleet of 16 harbor tugs, which specialized in serving oil tankers, to Rimorchiatori Riuniti, a larger Italian towage company. Following the acquisition of Augustea, Rimorchiatori Riuniti confirmed its leadership as the most prominent Italian tug operator in the Mediterranean with a fleet of about 82 harbor tug boats, ranging in power from 1.100 to 8.200 BHP. Said Raffaele Zagari, "we believe the Rimorchiatori Riuniti group represents, for Augustea shareholders, the best opportunity for an organic growth in the national towage market." (Bennendesn & Bryan, 2019).

The group's presence and efforts remained concentrated in the Dry Bulk Cargo and off-shore towing services. Both business units underwent major transformations.

These operations allowed the Group to exit - or redesign through alliances - the business areas where it was weak due to the consequences of the deep crisis affecting the industry. At the same time, it strengthened the Group's position in the business areas where the group board and top management saw space for supporting business continuity. Last but not least, it also allowed a

[1] Exhibit #1 shows the structure of the group and its changes for corporate transactions during the period 2012-2021; Exhibit #2 report the workforce in the group, and its evolution.

separation and clearer identification of towing services and barge transport and created a specific subsidiary managing support services.

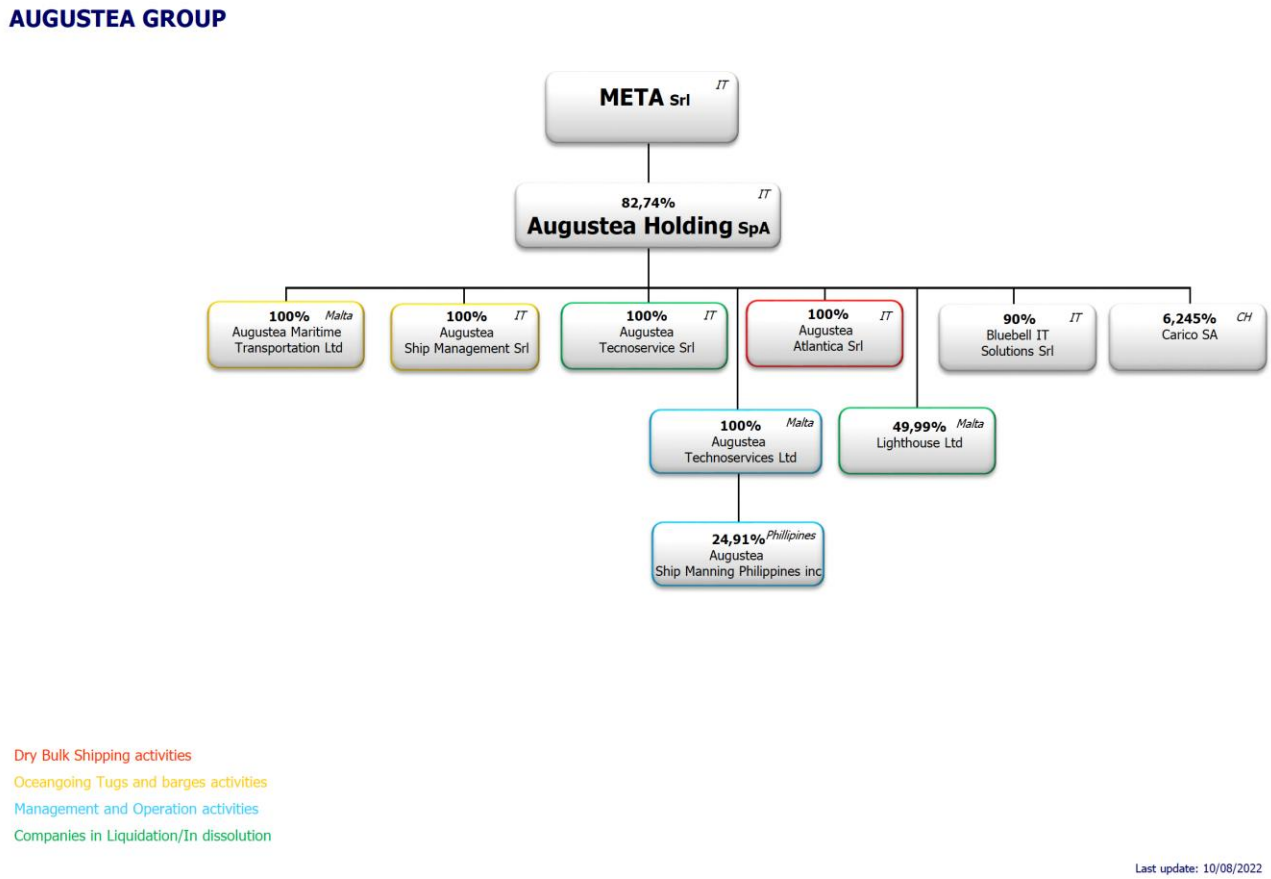
In 2010 the Augustea Holding Group managed its activities through two subsidiaries:

- Augustea Atlantica Spa, based in Naples, managed maritime transport, ship charters, and related activities, either directly or through its subsidiaries;
- Augustea Spa, based in Augusta (Syracuse), managed towing services in the port and off-shore areas.

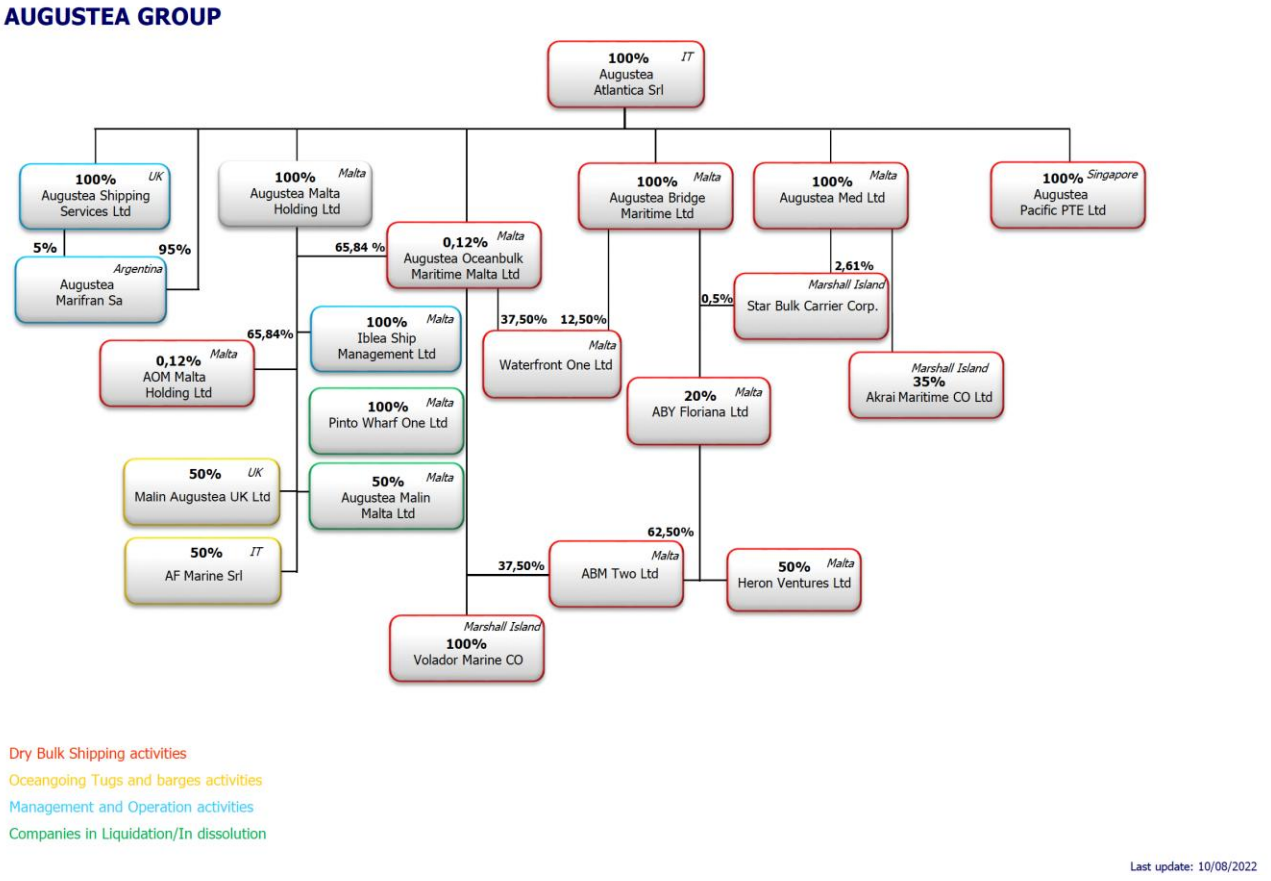
After the restructuring, the composition of the Group resulted as follows:

- Augustea Atlantica Srl, based in Milan, manages dry bulk cargo, both directly (on a residual basis) and (primarily) through its subsidiaries Augustea Marifran SA and Augustea Shipping Services Ltd;
- Augustea Ship Management Srl, based in Milan, manages towing services;
- Augustea Maritime Transportation Ltd, based in Floriana (Malta), manages maritime transport with barges;
- Augustea Technoservices Ltd, based in Floriana (Malta), manages assistance services for technical purchasing, safety, quality systems, and crew management;
- Bluebell IT Solutions Srl, based in Naples, of which Augustea Holding owns 90% of the share capital, manages consulting services, and develops technologies in the IT field.

The following chart synthesizes the structure of the group at the present day.



The following chart reports the articulated structure of the Augustea Atlantic sub-holding.



4.1.1. Dry Bulk Cargo

The commercial management of the subsidiary Augustea Atlantica Srl and its subsidiaries is traditionally based on a prudent balance between supply potential (represented by owned vessels and those chartered by other operators with time charter agreements) and transport demand (given by "out" rental contracts and contracts for the transport of raw materials).

In 2018, to strengthen the Group's position in a sector where a concentration process is ongoing, Raffaele Zagari decided to join a larger company. He conferred the Group's fleet of 16 dry bulk carriers into Star Bulk Carriers Corp., a large marine company listed at the New York Stock Exchange, holding a fleet of 150 ships. In change of the fleet, Augustea Atlantica acquired 11.3% of Star Bulks common shares, Star Bulk assumed debt of approximately $309.0 million, and Raffaele Zagari was named as a director of the Star Bulk board. (Bennedsen and Henry, 2019).
The positive trend in demand for maritime transport services in 2021 had positive effects on the value of the shares of the company Star Bulk held by the group through the companies Augustea Med Ltd and Augustea Bridge Maritime Ltd.

After the restructuring of the Group, Augustea Atlantica Srl continues running the market at a lower risk rate, renting ships from Japanese ship-owning companies at convenient fares. Augustea Atlantica develops its business mainly through the holding of shares in companies described below, operating in the same sector or in sectors complementary to shipping:

Augustea Malta Holding Ltd, a company based in Malta, which in turn holds 100% of the capital of Pinto Wharf One Ltd, 65.84% of Augustea Oceanbulk Maritime Malta Ltd, 50% of AF Marine Srl, 50% of Malin Augustea UK Ltd and 50% of Augustea Malin Malta Ltd.

Augustea Med Ltd, a company based in Malta, holds a share capital of the company Star Bulk Carriers Corp equal, as at December 31 2020, to 3.1%.

The Augustea Marifran SA company, based in Buenos Aires, provides the group with the many years of experience acquired in the operational management of bulk carriers.

Augustea Shipping Services Ltd, based in London and operating in the maritime brokerage market, is entrusted with the brokerage activity, the analysis of risk profiles, and the management of legal issues for the fleets managed by the Group.

Augustea Pacific Pte Ltd, based in Singapore, as of December 31, 2020 no longer owns vessels, either chartered or owned.

Augustea Bunge Maritime Ltd (ABML), based in Malta, is 50.85% owned and the residual share capital is owned by the shareholder Bunge Investment Management Ltd (49.15%). The company provides commercial services and charters vessels for the bulk transport of dry cargo. ABML in turn holds 20% of the sub-holding ABY Floriana Ltd, a company based in Malta that holds stakes in other companies (three at December 31 2020), all incorporated in Malta and controlled by the sub-holding; these companies are currently inoperative. ABML also holds 12.50% of the company Waterfront One Ltd, and a stake in the share capital of the company Star Bulk Carriers Corp equal, as of December 31, 2020, to 1.4%.

Augustea Oceanbulk Maritime Malta Ltd operates a fleet of time charter vessels under long term contracts. The company holds 37.50% of the company Waterfront One Ltd described above and 100% of the company Volador Marine CO, owner of a ship for the transport of dry cargo.

4.1.2. Towing and off-shore transport

In the special transport sector, the Augustea Group operates with a fleet of AHT type tugs in the power range between 8,000 bhp (2 units) and 12,000 bhp (2 units), as well as non-self-propelled, semi-submersible, and non-self-propelled barges, of dimensions in-line with industrial standards and lengths between 300 feet (1 unit) and 400 feet (4 units), hiring barges and tugs to assist and support projects in the Oil & Gas and Renewables sector, but above all operating in the long-haul transport market providing tugs and barges to support infrastructure projects.

In recent years, in support of both the offshore oil market and pure transport, the highest market segment has developed with the presence of special self-propelled vehicles (so-called Deck Carriers, or Semisubmersible Heavy Lift Vessels), driven by demand for platform modules ready for use built mainly in the Far East (South Korea and Singapore), in the presence of high oil prices.

In the barges sector the Augustea Group manages the fleet through its subsidiary Augustea Maritime Transportation Limited (AMTL), of which it controls 100% of the share capital, and through the joint ventures Malin Augustea UK Limited (MAUL) and AF Marine Srl, of which it controls 50% of the share capital.

In 2022, the increase in requests in the renewable energy sector allowed a recovery from the problems of the previous years, despite the persistence of some difficulties related to the Covid-19 pandemic.

4.2. Foreseeble evolution

The evolution of the Group depends directly on the performance of the markets in which the subsidiaries operate.
Concerning the market for the maritime transport of dry bulk cargo and ship chartering, in previous years, the Group implemented a reorganization process that led to the disposal of almost all the ships held against the acquisition of significant shares in one of the largest listed shipping companies and the increase in technical management activities towards third parties not belonging to the Group.
The plans for the future are to better manage the presence in the sector through shareholdings, also evaluating the possibility of enhancement in light of the significant increase in the prices of securities on the markets, and to diversify the provision of technical management services.

The Augustea Group operates in the energy industry through the "Special Transports" Division, which includes Augustea Ship Management Srl, Augustea Maritime Transportation Ltd, and Malin Augustea UK Ltd. The oil industry's performance is no longer the main driver of demand for offshore towing services, although it remains a key component.
The substantial increase in gas, wind, and renewable sources projects has expanded the possibilities of commercial choices and strategic investments in the sector.

The problems of use of the means encountered during the previous years have attenuated during 2021 and 2022: the favorable trend is expected to be confirmed also in the following years.

To face the financial challenges caused by the pandemic, the Group signed with its bank counterparties to restructure the company's financial debt with all bank counterparties without any debt cancellation. As a result, the investee company has cash flows estimated for the near future in line with the disbursements provided for by the sworn plan.

Thanks to the market recovery in 2021 and 2022 Augustea Holding SpA and the whole Group have a high degree of liquidity making them able to meet their commitments.

The leadership team at Augustea has also turned its attention to innovations in the boardroom. Although not publicly listed on the stock exchange, Augustea rendered its own corporate governance system compliant with the principles set out in the Self-Regulatory Code for listed companies prescribed by the Italian Stock Exchange. Based on international best practices, the company's governance structure has put rules and regulations into place. Family shareholders are now assured that their company has a long-term plan in place. In fact, the leadership team have published corporate governance reports since 2012. Raffaele Zagari is convinced that the Augustea model can be used by many family-owned firms seeking to learn from his company's difficult experiences. (Bennedsen and Henry, 2019).

5. Conclusions

5.1. The virtue of antifragility

While businesses may not choose to avoid uncertainty, unpredictability, complexity, ambiguity, and volatility, how they frame and deal with events can affect their ultimate impact.

What makes the difference is the ability to seize opportunities in difficulties and transform obstacles into stimuli. Hence the virtue of antifragility.

Antifragility denotes the characteristic of a system not only to resist the action of an external agent without breaking, absorbing it, flexing, and reacting with a certain degree of flexibility but to adapt to external stressors to change and improve (Ruisi, 2019, p. 18-19).
An "antifragile" enterprise transforms the headwind into a favorable wind, embraces the unexpected and uncertainty, suffers the traumatic event, makes it its own, positively assumes the risk and exploits it to improve. Being an antifragile enterprise requires an extraordinary capacity for ingenuity and the ability to constantly improve. At the base of the concept of anti-fragility, in fact, there is the very conception of improvement.

Antifragility requires a new corporate philosophy, a new way of understanding and seeing things. Antifragility, therefore, induces companies to shift their focus from risk management to readiness to respond to tense factors, developing skills and competences that allow to improve performance in the presence of uncertainty.

5.2. Augustea as en axample of antifragile family business

As part of its operational activity, Augustea has shown resilience and improvement, seeking, in times of most significant difficulty, effective solutions to become more solid.

The Cafieros, as an entrepreneurial family, have been able to impose quality standards, undertaking plans and strategies to improve their services and consolidate their competitive position. These strategies were conceived mainly as a response to changes in the sector and economic crisis, during which the company's ability to continue to operate on the market was put to the test.

Augustea has not only been able to adapt to changes but has reinvented itself, anticipating structural changes and contributing, with a view to collaboration with its competitors and giving an evolution to the market.

The numerous investments in the construction of strategic alliances and the innovation of boats and technologies have had as their primary purpose to improve the quality of its services, putting the needs and requirements of customers first, more attentive to the quality and eco-sustainability of their activities and their collaborators.

Augustea, over time, has shown an excellent aptitude for dynamism and renewal, becoming a spokesman and witness of a path aimed at economic, social, and cultural progress. The promotion of employment and the particular attention paid to workers' rights and their financial and professional needs testifies to the commitment made to issues of social and political importance.

The growth and development experienced by Augustea since 1629 is the result of the resistance opposed to adverse phenomena and the propensity to thrive in a context characterized by uncertainty and randomness, the same uncertainty and randomness that accompanied sailors during navigation but that with dexterity they were able to tame, thanks to the considerable maritime knowledge and the ability to use the appropriate tools, driven by the desire to return to dry land and embrace loved ones again.

Exactly like its ships, Augustea has faced and in the current context, continues to face storms and thunderstorms, showing great ability to ride the wave, embarking on unexplored areas (blue ocean strategies), and landing in new ports, to discover new cultures and new knowledge to be

internalized and elaborated at an organizational level, starting processes of innovation and improvement. Augustea was able to glimpse opportunities for growth in what seemed to be obstacles and difficulties, looking beyond and transforming seemingly useless things into useful things (Ruisi, 2019, p. 73).

6. Aknowledgement

I want to express all my gratefulness to Mr Lucio Zagari, Mr. Raffaele Zagari and to Commander Pierantonio Cafiero, for opening so much of their family and business history, and for the assistance and support they provided during the meetings and interviews we had to prepare the case.
I also want to thank Ms. Ilaria Ballatore, a master student at the course on Entrepreneurship and Management, at the university of Palermo, who helped in collecting and analyzing the information.

Questions for class discussion

The main question that comes to mind when reading a story like this is what made it possible for a small family business, disadvantaged by the isolation and lack of adequate infrastructure in Calabria, to resist wars and destruction, fights for the hoarding of raw materials and competitive pressures, time and fashions, as to passing down the business for fourteen generations?

To look for an answer to this question and prepare for class discussion, please follow the following guiding questions

1. What are the main transformations in the competitive environment faced by Augustea over time and generations?
2. What are the main strategy drivers followed in different periods by the business, in the aim to answer the challenges?
3. Can you find a way to classify the different periods that characterize those changes and strategies?
4. What has been the contribution of each generation to the survival and development of the business?
5. How did the relationship between the Cafiero-Zagari Family and the Business change over time and generations?
6. What role did women play in the history of the business and the family?
7. What role did in-laws play?
8. How do you see the balance between the family and the business, in the present and for the future?
9. What challenges do you see for the mid and long term for this family business?

Exhibits

Exhibit #1 – Evolution in the structure of the Group between 2010 and 2022

Enterprises	Activity	Registered office	Owner	SHARE PERTAINING TO THE GROUP											
				2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
INTRAGROUP SERVICES															
Augustea Technoservices Ltd	Technical services	MALTA	Augustea Holding SpA	---	---	---	---	---	---	---	100	100	100	100	100
SHIPPING															
Augustea Atlantica SpA	**Shipping**	**AUGUSTA (ITALY)**	**Augustea Holding SpA**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	
Augustea Marifran Internacional SA	Bulk Carriers	BUENOS AIRES (ARGENTINA)	Augustea Atlantica SpA Augustea Shipping Services	100	100	100	100	100	100	100	100	100	100	100	
Augustea Malta Holding Ltd	Sub-Holding	MALTA	Augustea Atlantica SpA										100	100	
Lighthouse Ltd	Tanker and Bulk Carriers	MALTA	Augustea Holding SpA								49.99	49.99	49.99	49.99	
AF Marine Srl	Dry Cargo	MILAN (ITALY)	Augustea Malta Holding Ltd (50%)										50	50	
Augustea Navigation Srl	Bulk Carrier	MILAN (ITALY)	Augustea Holding SpA									100	100	100	
Augustea Shipping Services Ltd	Brokerage, risk analysis,	LONDON (UK)	Augustea Atlantica SpA	100	100	100	100	100	100	100	100	100	100	100	

	legal issues														
Augustea Pacific Pte Ltd	Dry Cargo	SINGAPORE	Augustea Atlantica SpA		100	100	100	100	100					100	
Augustea Bunge Maritime Limited (ABML)	Ship ownership and renting	MALTA	Augustea Atlantica SpA	--	50.85	50.85	50.85	50.85	50.85					100	
ABY Group Holding Limited	Holding – Dry Cargo companies	MALTA	Augustea Bunge Maritime Ltd (20%)				10.17	10.17	10.17	10.17	10.17	**Sold**			
ABY Floriana Limited	Holding – Dry Cargo companies	MALTA	Augustea Bunge Maritime Ltd (20%)									10.17	10.17	10.17	
Waterfront One Ltd	Ship ownership and renting	MALTA	Augustea Bunge Maritime Ltd (12.5%)							6.36	31.09	31.09	31.09	31.09	
Augustea Oceanbulk Maritime Malta Ltd Before 2018 Augustea Oceanbulk Maritime Lda	Time charter and other shipping activities	MALTA since 2018 Before MADEIRA (PORTUGAL)	Augustea Atlantica SpA (0.12%) Augustea MED Ltd (65.84)	50	50	50	50	50	50	50	50	65.96	65.96	65.96	
Augustea Bulk Carrier Before 2016 AOM Shipping Malta Ltd	Shipping	MALTA	Augustea MED Ltd Previously Augustea Oceanbulk Maritime			50	50	50	50	100	100	**Sold**			

			Lda												
Volador Marine Co	Dry Cargo	MALTA	Augustea Ocean Maritime Malta Ltd (100)											65.96	
ABM Two Ltd		MALTA	ABY Floriana Ltd (62.5%) Augustea Oceanbulk Maritime Lda (37.5%)				25,11	25.11	25.11	25.11	31.09	31.09	31.09	31.09	
CBC Holding Ltd	Dry Cargo	MALTA	ABY Group Holding. Until 2018 Augustea Atlantica SpA	--	12.93	12.93	12.93	12.93	12.93	12.93	12.93	**sold**			
Augustea Logistics Ltd	Sub-Holding	MALTA	Augustea Holding SpA								100	100	**sold**		
Augustea Transhipment Ltd	Dry Cargo	MALTA	Augustea Logistics Ltd								100	100	**sold**		
Augustea Coal Management Ltd	Dry Cargo	MALTA	Augustea Logistics Ltd								100	100	**sold**		
Red Queen Navigation Transportes Maritimos Lda		MADEIRA (PORTUGAL)	Augustea Atlantica SpA	40	Merged in CBC Holding Ltd	---	---	---	---	---	---	---	---	---	---
Red Gardenia Transportes Maritimos		MADEIRA (PORTUGAL)	Augustea Atlantica SpA	25	Merged in CBC	---	---	---	---	---	---	---	---	---	---

Lda					Holding Ltd										
Bulk Japan Shipping Corporation		PANAMA	Augustea Atlantica SpA	25	Merged in CBC Holding Ltd	---	---	---	---	---	---	---	---	---	---
Red Lotus Shipping Corporation		PANAMA	Augustea Atlantica SpA	15	Merged in CBC Holding Ltd	---	---	---	---	---	---	---	---	---	---
Augustea Atlantica Trading Lda		MADEIRA (PORTUGAL)	Augustea Atlantica SpA	100	100 Sold	---	---	---	---	---	---	---	---	---	---
Bulk Indonesia Ltd		MALTA	Augustea Atlantica SpA	--	50	Sold	---	---	---	---	---	---	---	---	---
Augustea Med Ltd Già Bulk Philippines Ltd		MALTA	Augustea Atlantica SpA	--	50	100	100	100	100	100	100	100	100	100	
Red Iris Shipping Corporation		PANAMA	Augustea Atlantica Spa	30	30	30	30	30	30 Liquidated						
Jasmine Transportes Maritimos Lda		MADEIRA (PORTUGAL)	Augustea Atlantica SpA	25	Merged in CBC Holding Ltd	---	---	---	---	---	---	---	---	---	---
Red Lily Shipping Corporation		PANAMA	Augustea Atlantica SpA	25	Merged in CBC Holding Ltd	---	---	---	---	---	---	---	---	---	---
Bluebell IT Solutions Srl	Intragroup IT and business intelligence services	Naples	Augustea Holding Spa		---	---	---	---	90	90	90	90	90	90	

Offshore transport towing activities															
Augustea Ship Management Srl	**offshore maritime services**	**AUGUSTA (ITALY)**	**Augustea Holding SpA**	**Owned by META**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	
Augustea Maritime Transportation Limited	Barges for special transports	MALTA	Augustea Ship Management Srl (99.99%) Augustea Holding SpA (0.01%)					100	100	100	100	100	100	100	
Augustea Maritime Transportation Ltd	Barges	MALTA	Augustea Holding SpA (100% since 2015; before 0.01) Augustea Ship Management Srl (99.99% until 2015)	--	100	100	100	100	100	100	100	100	100	100	
Port towing activites															
Augustea Imprese Marittime e di Salvataggi Spa (Also known as Augustea Spa)	**Port Towing Activities**	**AUGUSTA (ITALY)**	**Augustea Holding SpA**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**SOLD**				
Augustea Terminal Srl			Augustea Imprese	---	---	---	---	---	100	100	SOLD				

			Marittime e di Salvataggi SpA												
Augustea Grancolombia SA	Offshore trailer	BARRANQUILLA (COLOMBIA)	Augustea Terminal srl (since 2015) Before 2015 Augustea Imprese Marittime e di Salvataggi SpA	92	92	92	97.59	98.51	98,51	98,51	38.582	38.582	38.582	38.582	
Kiana Unipessoal Lda (Previously Sundrive Ltd)	Offshore trailer	MADEIRA (PORTUGAL)	Augustea Terminal srl (since 2015) Before 2015 Augustea Imprese Marittime e di Salvataggi SpA	100	100	100	100	100	100	100	40	40	40	40	
Augustea Tecnoservice Srl	Technical support	AUGUSTA (ITALY)	Augustea Imprese Marittime e di Salvataggi SpA	99.99	99.99	99.99	100	100	100	100	100	100 liquidated			
Augustea Rigenoil Srl	collection, transport, treatment, delivery and / or	AUGUSTA (ITALY)	Augustea Imprese Marittime e di Salvataggi	--	50	50	50	50	50	Sold					

	disposal of waste produced by ships		SpA												
Augustea Anchor Marine Transportation Ltd		FURNHAM (UK)	Augustea Imprese Marittime e di Salvataggi SpA	100	100	100 Terminated	---	---	---	---	---	---	---	---	---
Compagnia di Navigazione Rimorchi e Salvataggi S.r.l.	sea and river transport of goods and passengers	ROME (ITALY)	Augustea Imprese Marittime e di Salvataggi SpA	11.11	11.11	11.11	11.11	11.11	11.11	sold					
Augustea Freight Management G.e.i.e. in liquidazione		MILAN (ITALY)	Augustea Holding SpA	100	100	100	terminated								
Augustea Pacific Srl		NAPLES (ITALY)	Augustea Holding Srl	100	100	liquidated	---	---	---	---	---	---	---	---	---

average number of employees in companies included in consolidation by the integral method, divided by category.

Cathegory	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Executives	9	10	10	10	10	11	9	9	8	7	7	
Employees	106	114	114	110	119	112	88	81	42	63	60	
Workers	7	6	7	6	7	6	6	6	-	-	-	
Seafarers in tugs	150	222	212	210	215	196	47	47	25	40	40	
Seafearers in Ships	46	49	30	29	23	7	6	6	1	36	12	
Total	318	401	373	364	339	367	156	149	76	146	119	

References

Books and Reports

AIdAF – Associazione Italiana delle Aziende Familiari, ISVI- Istituto per i Valori d'Impresa, in collaborazione con Studio Pirola Pennuto Zei & Associati, Università Cattolica - ALTIS (Alta Scuola Impresa e Società), Università Bocconi - Cattedra A. Falck Strategia delle Aziende Familiari "La responsabilità sociale nelle aziende familiari italiane", a cura di STEFANIA BERTOLINI, MARIO MOLTENI E MATTEO PEDRINI, gennaio 2006.

Banca D'italia – Eurosistema, "Economie regionali. L'economia della Campania", Rapporto annuale, Numero 15, Giugno 2021.

Bennedsen Morten, Henry Brian, "Augustea: A Family - Owned Company Confronting Major Challenges in the Global Shipping Industry", INSEAD – The Wendel International Centre for Family Enterprise, CFBR October 2019 Issue.

Camerano S., Carriero A., Dell'aquila C., Giuzio R., Recagno L, Valdes C., " Le 5 Eccellenze da cui ripartire", Fondazione CDP - Focus Territori, Ottobre 2020.

CENSIS – Centro Studi Investimenti Sociali, Federazione del Mare - Federazione del Sistema Marittimo Italiano, IV Rapporto sull'economia del mare, "Cluster marittimo e sviluppo in Italia e nelle regioni", Roma, 2011.

Coppola Antonella, Terzulli AlessaNDRO, "Shipping e Settore Navale: Struttura, Performance, Outlook e Operatività SACE", WORKING PAPER N.13, Luglio 2010.

D'esposito F., Passaro B., "La marina mercantile del porto di Napoli", consultabile sul sito www.provincia.napoli.it.

Maresca Massimo, Passaro Biagio (a cura di), "La Marineria della Penisola Sorrentina e la cantieristica in legno da Marina d'Equa a Marina Grande – Shipowners, Shipping and Wooden Shipbuilding in the Sorrento Penisula", Confine Edizioni, 2011.

Mazzetti Stefano, "Porti e vita marittima nella storia e nell'economia della Campania", estratto da "Porti, trasporti marittimi, città portuali" a cura di STEFANO SORIANI, AGEI- Geotema 40, Pàtron Editore, Anno XIV 2010 gennaio-aprile.

SRM - Studi e Ricerche per il Mezzogiorno, "Osservatorio COVID-19 sui Trasporti Marittimi e la Logistica", Aprile 2020.

Websites

https://www.augustea.com/

http://www.ammiraglia88.it/sezione_normale/pagine_sito/navistoria.html

https://www.argacampania.it/

https://www.facebook.com/groups/121083111286605/permalink/1262309983830573/

https://www.ilsole24ore.com/

https://www.milanofinanza.it/

http://www. provincia.napoli.it/

https://www.repubblica.it/

https://www.rimorchiatori.com/

http://www.scafi.it/

https://www.shippingitaly.it/