The general arrangement. Contrary to what many might think, designing a new vessel with multiple technical requirements can be not merely a challenge, but actually a somewhat easier way to sort out new design ideas. The technical constraints dictate the goal that we want to achieve, and it was on this premise that the design of the Xvintage 99m motor yacht was born.

The scope was clear: it centres on requirements that Fincantieri, Pastrovich and Wärtsilä thought very challenging and forward-thinking, needed to be satisfied – design born around function.

"In life, finding a way to increase adrenaline, and to discover a means for solving problems in a greater way, can be difficult. In the end, culture and experience are the necessary ingredients to get a clear vision of what we are doing!"

The philosophy of the interior layout is to create a number of spaces, all with a different purpose, look and view, and to avoid the typical wedding cake deck layout of most large vessels. The aft beach club is a large transformable area where the tender garage also acts as storage space for the day toys and the exterior lounge furnishings. The LNG tank has been placed very close to the tender garage because both need a very high ceiling. On the upper deck, the idea is to dedicate the entire area from the bow to the aft terrace for the use of the owner and guests, giving them the possibility to experience the interiors from different angles, lights and sounds. The aft interior salon is connected to the exterior terrace through a large sliding door, thus giving a feel of continuity of space between interior and exterior. The walls around the cinema are built with large sliding panels, which makes this area transformable into a playroom for kids, or for watching F1 or PlayStation. And just forward of the bar we have placed another lounge with a transformable table that can become a formal dining room. The owner’s apartment and terrace are on the aft bridge deck. This choice of location comes from the designer’s personal spirit of life on board, where privacy and the need to spend time together is very important. The terrace on the sun deck is covered with a large bimini, and the exhaust stacks are discreetly placed so as to leave the view as the main attraction.
The layout is conceived to create a large aft deck area and an interior garage to accommodate various sizes and types of tenders, as well as the toys, sofa and tables. The list isn’t short; it’s also diverse. A 12m power boat, a 6m rubber tender, a 12m trimaran, many jet skis, and a submarine if required. The sides of the hull are closed during navigation to protect the exterior deck from heavy seas. The tender launching system is guaranteed using two J-frame cranes recessed on the exterior deck. The simplicity of this particular system enables for a stable launching operation, which is key to accelerating the process and saving crew time.

Lots of toys...
Concept design: A beach house with a private island is what we have in mind, the dream of “the island” or “Niki beach.” The soul of this project is to reflect the luxury of a simple life at sea. Sand, rock, liver, water, fire, bamboo, exotic fruits – these are some of the elements that we have used as inspiration. Once the tender has been launched at sea, the aft deck becomes a terrace. The side hull slides outside to give shade during lunch, or while watching a movie on the large screen. The advantage of such a large open area is the flexibility the space offers to be adapted to different uses.
Space development: The Xvintage 99m motor yacht has been designed with open spaces and loose furniture. This provides a free and peaceful atmosphere, without designer constraints but with a lot of flexibility to let the owner decide his best view, his best sofa for reading, his best table to have breakfast, his best place to dance. We decided not to offer layout options, such as double table, single table, triple sofa, and so on. Instead, we decided to give him our personal choice and provide 100% freedom to change. “Pure luxury is probably freedom.”

Since we cannot compete with nature in terms of beauty, elegance and emotions, we decided to play with it and use all natural materials where possible to increase the feeling. Candles to light the deck at night, sofas made with bamboo, flowers, coconut shell, natural woods, Japanese paper to soften the artificial lighting and...
Materials, view and emotions. There are several external details which characterize the soul of the Xvintage 99m motor yacht. All of them are designed with the same intention of contributing towards increasing the quality of space. The main philosophy is based on the consciousness that the yacht is a platform for looking at the spectacular view of the world with all its colour, sounds and lights. This is why, in my designs, the materials used for the interior and exterior are always based on a soft and natural finish—giving the feeling of a gentle need for communication with the world around.

Teak floors inside and out maintain a constant temperature and humidity, to feel better barefoot on warm floor in the summertime. The exterior deck extends outside the salon to increase the continuity of the space. Fabric made of linen with soft colour to inspire relaxation. The shape of the superstructure’s windows, horizontally oriented to enhance the exterior view, designed with a teak window frame all around, as a way of merging them with the saloon and terrace areas. The size of the eight bulwark windows has been designed to maximize the exterior view while keeping the privacy of the interiors. Finally the xxl size Chinese umbrella above the dining table makes for a cozy space that increases the value of chatting with friends in the quietest and more private areas of the vessel.

Architecture is a way to listen to nature, not the other way around.
Flexible dual-fuel power

Let’s save energy, but let’s also calibrate our living space to make a lighter vessel that accommodates what we need for living a beautiful life, one cozy enough to settle our needs. Energy can only be saved by finding the right balance between architecture, technology, and mostly human awareness.

Flexible dual-fuel power and propulsion systems. The dual-fuel power and propulsion system of the *Xigarette* 99m motor yacht is based on the Wärtsilä 20DF dual-fuel engine, a compact unit providing all the advantages of fuel flexibility. This allows owners and operators to opt for the most suitable fuel (natural gas, marine diesel oil, heavy fuel oil, or even liquid biofuel) taking into account local environmental restrictions, fuel price variations, and fuel supply capabilities. Additionally, Wärtsilä dual-fuel engines have the ability to automatically switch from one fuel to another without any loss in speed or power output. In gas operation mode, Wärtsilä DF engines are already compliant with the forthcoming IMO Tier III regulations without the need for any secondary exhaust gas purification systems. Wärtsilä's dual-fuel engine sets are fitted with alternators mounted on a common bedframe, and by utilizing double mounting arrangements, even the most stringent standards for low levels of noise and vibration can be met.

Safe and convenient onboard storage of LNG. Wärtsilä's LNGPac is a complete solution for LNG bunkering, and the safe and convenient storage of gas fuel on board. The LNGPac is designed with safety and simplicity in mind. It is a complete system with a seamless interface to all other Wärtsilä equipment and systems in the yacht, thereby ensuring efficient operations. LNGPac is a safe and cost efficient approach!

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Compliance with IMO Tier III rules, imposing a severe reduction in NOx emissions, will enter into force.

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In 2016, less than five years from now, the IMO Tier III rules will enter into force, imposing a severe reduction in NOx emissions. These restrictions will apply to important designated areas, such as the Baltic Sea and the USA coastal waters. According to marine engine manufacturers, if conventional fuel is used the means for complying with the new regulations cannot be found on the engine itself. Instead, post-treatment of the exhaust gases will probably be the most popular solution. However, the dedicated urea tank and system will require significant space for the arrangement, and it may also have a negative effect on the exhaust back pressure, especially if combined with soot particle filters.

An alternative answer is to simply change the fuel from diesel to LNG. More than 100 vessels in merchant, offshore, and ferry applications are successfully operating on gas. The great benefit of this approach is that no exhaust gas treatment is needed to fulfil the NOx level requirements. At the same time, SOx levels are practically zero, no soot is produced, and CO2 emissions are also significantly reduced. Of course there are challenges: from the ship design point of view, the biggest is related to the volume required to store the fuel. LNG requires two to three times the volume of an equivalent quantity of Marine Gas Oil and from an operational point of view, the logistics of LNG refuelling can be problematic. So, what would it mean to design a yacht with LNG, or better still, dual fuel (LNG and MGO) propulsion? How would it look? Where do we stand and what can we expect regarding the availability of LNG fuel?

Fincantieri Yachts decided to explore these points, and to get real know-how and feedback on LNG and dual fuel installations from Wärtsilä. For the subsequent project, Fincantieri Yachts developed the naval architecture while Wärtsilä was fully responsible for the propulsion system. Since it was immediately clear that a totally new yacht had to be developed around the concept, Stefano Pastrovich, who is very active in the research of new solutions for minimizing environmental impact, joined the project to provide his exciting interpretation as exterior and interior designer. Pastrovich Studio developed a new concept for the general arrangement, which is based on an extraordinary integration of LNG technology with the general layout. The result is a smooth harmony that unites the onboard lifestyle, the functional use of the yacht, and finally the décor. Thus we have an innovative 99m concept, the first dual fuel, IMO Tier III compliant yacht.