



The temporary bridge for the Redentore Festival in Venice is a stunning example of the floating structures Ingemar helps develop for events.

Ingemar at 45: innovating for the bigger picture

Italian marina design and build specialist Ingemar celebrates 45 years in 2024. *Marina World* talks to founder and CEO *Lorenzo Isalberti* about his passion to continually ensure that infrastructure is improved and relevant, while never losing sight of the fact that marinas are for 'people'.

"From the very beginning, Ingemar's growth has been fuelled by the desire to improve the traditional structures designed for the needs of the past, with new solutions designed for the changing expectations of modern yachting," Isalberti says. He highlights the advantages of floating infrastructure, such as ease of layout, constant freeboard at varying tides and minimal environmental impact, and emphasises the focus Ingemar has always placed on materials. "From a production point of view, Ingemar has always favoured the use of natural and environmentally friendly materials and tropical timbers from FSC-certified forests," he notes.

Over the years, Ingemar research has developed non-invasive anchorage systems,

Ingemar pontoons at Marina del Gargano, a 700-berth marina in the Italian Gulf of Manfredonia. Vessels up to 50m (164ft) in length can moor up in an environment that offers privacy as well as multiple amenities.

and damping systems with special elastomers and Dynema ropes, expanded its operating facilities, established a network of licencees in the UAE, Oman and India, built ever bigger breakwaters and, most recently, launched a Marina4all range of products.

What's ongoing and in the pipeline for Ingemar – and for the industry?

Q: In a bid for decarbonisation, boats – especially large yachts – will be increasingly designed to accommodate different fuel systems. How will this impact on the design of marinas and pontoon systems?

A: At the moment, separate safe areas are being created on floating platforms and pontoons that are equipped with spill guards and special filter sections in the water that absorb hydrocarbon residues.

In the near future, it is foreseeable that we will see a progressive development of hydrogen propulsion, which seems to be able to provide an autonomy that electric power does not currently guarantee. The difficulties to be overcome will no longer concern problems related to pollution but to the storage and safe transfer of potentially flammable and explosive elements.

With this in mind, Marina Sant'Elena in Venice seeks to be a 'pathfinder' for the new technology and is currently collaborating with NatPower srl to install a first 'clean' refuelling point.

Many marinas are also equipping themselves with photovoltaic systems, with projects to cover their buildings and also to cover their jetties with canopies, or even to transform their decks into photovoltaic surfaces.

Q: What is the thinking behind your Marina4all products?

A: Marina4all products aim to make the approach to modern ports



Lorenzo Isalberti (wearing white waistcoat) and the Ingemar team.

'kinder', with high safety standards and easy accessibility for everybody – for those with disabilities, but also for anyone who wishes to use the port, from the elderly or those with mobility difficulties to new mothers with bags and pushchairs and ship owners, sportsmen, craftsmen, service personnel, etc.

In addition to special and often technically complex solutions, such as reduced distance between the water level and the walking surface, the minimal slope of the connecting ramps, and attention to the sufficient width of walkways to ensure comfortable manoeuvring spaces, the new structures are equipped from the start with special provisions for auxiliary protection and support systems (cranes for lifting people and other devices), as well as original patented surfacing sections that absorb the oily residues suspended in the waters of the host basins.

The first Marina4all prototypes were launched in 2023 at the Venice and Genoa Boat Shows and used by disabled sailor Marco Rossato as the starting and arrival bases for his Tour of Italy by Sail "Navigating Beyond Limits". He visited 45 Italian ports in 99 days of navigation and covered over

A destination marina in the Gulf of Naples, Marina di Stabia's Ingemar pontoons deliver 789 berths. The largest of megayachts can be accommodated due to deep waters.



1,700 miles aboard 'Tornavento' to "photograph" the accessibility of Italian boating facilities and to urge operators and the public to pay more attention to it.

At the design level, the next Marina4all facilities will also include new elements designed to overcome other forms of access barriers, invisible to those who can see, but unfortunately penalising those who are visually impaired or blind. They will include dedicated experimentation areas, tactile paths, contrasting colours and Braille signs.

Q: Can further progress be made with

new materials and techniques? If so, what is currently under discussion and what can be foreseen?

A: There are many areas where action can be taken today to improve the performance and quality of modern marinas. The most likely development hypotheses take into consideration the new possibilities offered by research into advanced technologies and innovative materials. These include: the increasingly important use of recycled elements and photovoltaic surfaces for the construction of roofs and the decks themselves; anchoring systems equipped with special attenuators able to generate energy from water movement; and the process of digitising services that will soon include software and sensors to monitor areas and routes and facilitate all manoeuvres in port.

Q: Do you see marinas using more water space for floating structures in order to make better use of land space or overcome the lack of space on land?

A: Available space is and will be increasingly limited and crowded. This means that marinas must be increasingly open to the city, allowing non-boaters to enjoy some of the marina's services, and solutions to optimise logistics and hospitality are multiplying: car parking built inside floating breakwaters; platforms for services and exhibitions; club houses



The Ingemar marina at the annual Genoa Boat Show is one of the company's most famous references.

Today's marinas respond more to the idea of a large hub that centralises and provides different services, i.e. a place to go to for a water-related experience.

This is why, as in other sectors, it would be desirable to spread 'boat-sharing' and all-inclusive short-term rental practices, from small boats to maxi-yachts.

Marinas must become the water gateway to the host city, attracting the population to experience the sea, not just admire it. Therefore, in addition to enjoying the services present, such as shops, bars and restaurants, people should be able to enjoy the sea and water sports, such as sailing, rowing, diving, sport fishing and so on. Marinas should be able to attract and entice people to experience the sea, spreading the culture of the sea, respect for the sea, the beauty of the sea.

As mentioned, it will be interesting to place new land spaces next to 'classic' marinas, where new dry marinas will be built, offering a launching service for smaller boats with automated or on-call systems.

In the traditional marinas, meanwhile, associations and sports clubs will continue to be able to find space, but will have shared facilities to provide new experiences to a wider public, not necessarily made up of boat owners.

Equipped floating structures will also gain more and more space in the future, due to the ease with which port layouts can be reconfigured according to size of boat and market demands.

becoming sports centres; and even the new trend of building floating houses inside marinas to improve their reception and accommodation offerings.

Q: Have you recently built floating structures specifically for marinas?

A: Since most of Ingemar's installations are tailor-made, there are many significant structures in terms of design features and dimensions. Examples include those in the Gulf of La Spezia, an open-air showcase of the most diverse Ingemar creations, and the service platforms for the four marinas built in LaAla Al Kuwait for a new city risen from the desert. In Lignano we built connecting pontoons for houseboats in a floating resort; we built the floating office and service centre for the regional port of Locarno; and the floating headquarters of the Tevere Remo rowing centre in Rome.

Q: What will be the design and construction principles for marinas in the coming decades?

A: The shortage of new water space for pleasure boating leads us to look more and more insistently at solutions that, on the one hand will seek to expand existing marinas with the addition of new protective breakwaters and the construction of automated shore shelters to free the basins from small boats, and on the other will contemplate

major projects for the reconversion of degraded areas or disused industrial settlements to transform them into drivers of tourism and territorial development.

The most recent examples of reclamation and restitution to the community of water areas equipped with Ingemar floating structures can be seen in Italy. For example, in Castellammare di Stabia or Piombino, where new large boat marinas have sprung up on the ashes of the old local steel industry, and at the old port of Genoa as part of Renzo Piano's waterfront regeneration project.

Q: What we should do and what should we *not* do?

A: The model inspiring modern marinas has profoundly changed from the original concept of 'sheltering and parking' for boats.



Marina di Valetta in Malta has been designed to maximise mooring for different kinds of vessels within a sensitive and historically rich environment.