

Weighing the trajectory of environmental solutions

BY FRANCES GANNON

The 55th MedCruise General Assembly took place in Antibes Juan-Les-Pins on 1–4 October 2019.



Photo: MedCruise Association

The 55th MedCruise General Assembly, held at the beginning of October and hosted by French Riviera – CCI Côte d'Azur (Ports of Cannes, Antibes, Nice, and Villefranche), featured a riveting session that focused on LNG, shore power, and plastic waste. The discussion prompted further debate: Should the industry invest in LNG facilities and shore power?

The Status of LNG

LNG supply has not changed in the past year, with eight equipped MedCruise member ports located mainly in the western Med, the adjoining Atlantic, and North Africa. Another 43 member ports dotted across the Atlantic, western Med, eastern Med, and Black Sea have indicated a willingness to supply LNG. But is this the fuel for the medium to long period?

"In 2015 we already knew that LNG was a transitional fuel," said Miguel Núñez Sánchez, external expert, Universidad Politécnica, Madrid. "But ship owners are investing a lot. The investment in equipment for LNG ships in comparison to other combustible fuels is huge."

But does LNG have to be transitional? Bud Darr, executive vice president of maritime policy and government affairs, MSC Cruises, made reference to Sánchez's

statement, explaining that fossil-fuel-based LNG is a transitional fuel because it's the best option. He continued, "But if we can scale up bio-LNG to make it affordable, or synthetic LNG in a zero or low-carbon manufacturing method, if we can perfect carbon capture technology and translate that into a shipyard environment, then maybe the things we think have to go now may not have to go right now."

The single biggest challenge

It is still uncertain what the ultimate zero-emission fuel will be in the future. Tom Strang, senior vice president of maritime affairs, Carnival Corporation, considers this

the single biggest challenge facing the cruise industry. Up until recently, LNG was considered the best viable option, but the worry now is what the future will look like, with strict regulations on the horizon. Will this "cleaner" fuel fail to pass those regulations due to the large output of greenhouse gases (GHGs)? Will it be replaced by some other option in the short to medium term, thereby leaving a scenario where ports have invested heavily in LNG facilities, with massive debts and obsolete technology?

On the other side of the fence, cruise lines have taken the quantum leap and invested in the best option currently



Photo: MedCruise Association

Tom Strang, senior vice president, maritime affairs, Carnival Corporation.

available. They need their investment to pay off. Strang said, "We've gone for LNG. Forty-four per cent of new cruise ships on order are going to be LNG-fuelled, and these are going to stretch out until 2025 or 2027." With this kind of investment, perhaps the question is not whether LNG is the answer but instead, How can the industry make it work to its advantage?

Darr stated, "If we're willing to spend a billion euro on a cruise ship, we're buying a 40-year asset. With that kind of capital behind it, we've got to make the best choice of what we have available now. How do we improve those choices? I believe those choices will come. Are we going to have that before 2030, I don't think so. Going beyond, we're going to see some breakthrough, but it takes R&D."

R&D

Darr may have been alluding to an announcement made at the end of October, when the industry was given a much-needed boost through a groundbreaking R&D project named Pacboat. This initiative, unveiled by MSC Cruises and Chantiers de l'Atlantique, together with five other key players, aims to integrate new fuel-cell



Photo: MedCruise Association

Nicky Guerrero, director for partnership and events, MedCruise.

technology with LNG power, which they believe will reduce GHGs by 30 per cent, with no SOx, NOx, or PM emissions. Their hope is to deliver this technology by 2022 with their first World-class ship, *MSC Europa*.

Another welcome announcement came in mid-October from Meyer Werft regarding

the next phase of its Pa-X-ell2 project. The shipyard and AIDA Cruises, represented by Carnival Maritime, are two key members of an eight-party consortium whose aim is to develop a hybrid energy system with a new generation of fuel cells for use on ocean-going passenger ships. They expect this technology will be tested for the first time on *AIDAnova* in 2021.

Yet both Strang and Darr said they don't envisage zero-emission ships to be delivered before 2030. The encouraging factor is that cruise lines are taking this matter very seriously and are putting in massive investment to get there sooner. Now the question remains: Will the investment happen shore-side?

Will ports invest in shore power?

"What we are seeing is a large number of ports seriously looking at shore power," Strang said. "When you've got the volume, [when] you've got the number of calls, it makes sense to have a very serious discussion with your local utility and with the national administration." With an emerging cruise fleet that is fitted and ready for shore power, it makes for a win-win situation.

The key point that ports need to take

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into consideration when discussing shore power is that it must be from a renewable source – further reducing carbon footprint. Ports are looking at additional ways of reducing their carbon footprint.

Commitment from local French ports

During the Blue Maritime Summit in mid-October, Marseille Provence Cruise Club, Costa Cruises, MSC Cruises, Royal Caribbean Cruises Ltd and Ponant, the Ministry of the Environment, Provence-Alpes-Côte d’Azur Regional Council, and the Aix-Marseille-Provence Metropolitan Authority signed the “Blue Charter” for a significant reduction of air pollutants, initiated by the Cruise Club and the Port of Marseille Fos.

During the assembly, Port of Cannes director Eric Barrat discussed another commitment for cruise lines in the bay of Cannes to reduce pollutant air emissions and pollution at sea, and to protect biodiversity and promote environmentally friendly initiatives.

According to Barrat, this agreement will soon be made with different cruise lines, which will enjoy a financial bonus per passenger and call.

MedCruise’s stance

CruiseTimes spoke to Valeria Mangiarotti, MedCruise’s director for sustainability and environment, to find out if there have been any recent developments in relation to the Mediterranean Emission Control Area (ECA).

Mangiorotti responded: “The costs of low-sulphur fuel are much higher than those used today in our sea, and here the sources



Lérins Abbey on the island of Saint-Honorat, located a short boat ride from Cannes. This is a private island owned by Cistercian monastery and has been a monastic site since the fifth century.

of supply are much more limited than northern European seas. Consequently, today the risk deriving from the introduction of an ECA in the Mediterranean could be that of causing serious damage to the shipping industry.

“We would consider it necessary to reconcile the legitimate demands of environmental protection with the objective conditions of the reference market, finding a balance point,” she said, adding “that members of MedCruise are oriented to make investments in the context of LNG”.

A bright, clean future

With the efforts being made by cruise lines both in R&D and their talks with local governments, there are more incentives for

ports to think seriously about investing. “The suggestion we give to members is to make the best use of European projects related to LNG [and shore power] where ports can invest with European funds,” Mangiarotti said. “I believe that there is no perfect and unique final solution, as we live in ever-changing times.”

At one time, LNG was considered a monumental wave in the future of cruising. But the large investment in emerging technologies lends itself to a more crucial eye on feasibility and longevity. While many do not think that LNG is a long-term solution, it remains a viable option for cruise lines in a climate where environmental consideration is expected to take immediate precedence.



Photo: MedCruise Association

Aleksander Bieniek, vice president marine operations, Star Clippers.



Photo: MedCruise Association

Bud Darr, executive vice president, maritime policy and government affairs, MSC Cruises.