Going through the changes – with gusto

by Liina Kumpula

Through its established and vast network of sea shipping services, plus efficient road & rail hinterland connectivity (along the Finnish coast and all the way up to Russia), the Port of Naantali serves a number of trade lanes, be they for taking care of liquid and dry bulk or general cargo goods. There are heavy-duty industries located just next to the port – such as an oil refinery, a lubricant factory, a power plant, a betaine producer, a ship repair yard, and grain silos – that generate large volumes for it to handle. Easy wintertime ice conditions and one of the deepest fairways and quays in Finland (up to 15.3 m) make it possible to regularly handle Aframax tankers and Panamax bulkers. Additionally, Naantali is located a stone's throw from Sweden, which, coupled with the frequent ferry connections, has made the port the most important hub for cargo traffic going to and fro Finland and Scandinavia.

For those reasons, Naantali is today the fifth busiest universal freight port in Finland. In 2020, over 8.0mt, brought on-board around 1,600 vessels, went through the port's quays, including 142,000 trucks and trailers. Especially in times of a pandemic, the ferry services act as a vital link in the country's emergency supply. This was reflected in last year's increase in cargo turnover of about 7% year-on-year, despite certain off-market odds.

"To make cargo traffic run swiftly"

According to Yrjö Vainiala, the port's COO & Commercial Director, the "rushed and excessive" decision of the National Emergency Supply Agency (NESA), from March 2020, to grant financial subsidies only to the passenger car ferries sailing between Sweden and Finland and cover their losses has affected the proportional market shares between shipping companies as regards cargo transportation. "Discriminatory activities and market-distorting state aid only for passenger shipping companies were unfair and based on the poor situational picture: there were enough lane metres and capacity available between Finland and Sweden, and still the subsidies were justified by the need to ensure emergency supply and critical transportation capacity," he points out.

For instance, a large portion of service transport to the Åland Islands is shipped through Naantali, including all fuel used in the region. The Åland-based shipping company Rederi Ab Lillgaard has been operating a six times/week service between Naantali and Långnäs, with the ro-ro vessel *Fjärdvägen*, since 1996. Finnlines, in turn, plays a central role in getting critical supplies, industrial and societal, to Finland, such as pharmaceuticals, foodstuffs, spare parts and components, machinery and equipment, consumer goods, etc. "The Naantali-Långnäs-Kapellskär route used by Finnlines is by far the most important western route from the point of view of Finland's emergency supply. A significant share of all truck transports between Finland and Sweden are carried on that route on-board Finnlines vessels," Vainiala underlines. With nearly 30 weekly departures and almost 45% market share, Finnlines is the leading cargo carrier between Finland and Sweden. Finnlines' ro-pax *Finnswan* alone carries 200 trucks on each departure, which equals the truck transport capacity of four passenger ferries travelling daily between Turku and Stockholm. In normal conditions and without the market-distorting effect of the subsidies, more than half of the truck traffic using ferries between Southwest Finland and Sweden are carried via Naantali on board Finnlines' ro-paxes. Vainiala continues, "Finnlines' Naantali-Långnäs-Kapellskär route and the vessels serving it have been planned, built and scheduled specifically to make cargo traffic run swiftly, unlike the competition's Helsinki-Stockholm and Turku-Stockholm routes. In that regard, they are superior. Moreover, cargo customers don't have to needlessly drive through congested city centres." He also emphasises, "In my opinion, heavy vehicles do not belong to city-centres – it's a thing of the past and makes urban planning very challenging. Furthermore, the solutions to the problems are increasingly expensive."

As the Finnlines morning ship arrives in Naantali at 7:15, the cargo units will already reach terminals of transport companies in the Turku region before the competitors' vessels even arrive in the Port of Turku. The units can also be delivered to the terminals along with Ring III in the Helsinki metropolitan area before the cargo units arriving in the morning on-board of the passenger car ferries from Stockholm to Helsinki. "The schedule of the Helsinki-Stockholm route is not ideal for cargo, either: departure in Helsinki at around 5:00 pm and



Photo: KNUD E. HANSEN



arrival in Stockholm at around 9:30 am. When you compare that to the Naantali-Kapellskär route, it's possible to start loading goods much later to a ship that departs from Naantali to Kapellskär at around 10:45 pm, but the ship will nevertheless arrive in Kapellskär at around 6:15 am, allowing for the goods to be driven to the Stockholm area before the ships coming from Helsinki even arrive in the capital of Sweden. If the trucks arriving in Kapellskär continue to southern Sweden, they will have driven around Stockholm and advanced over a hundred kilometres south before the trucks arriving with the Helsinki ferries have even made their way out of Stockholm," Vainiala details the logistics chain.

The Naantali-Kapellskär link offers many advantages. The sea voyage is short, and the route avoids time-consuming passage through the archipelago in Sweden and the associated issues like speed limits, shore erosion, damage to small boats and piers caused by ship stern wash, as well as the sea entrance point to Turku, which is difficult especially for large and long vessels to navigate through. "The ferries don't have much extra turnaround time in Turku or Stockholm, mainly due to the speed limits on the Swedish end of the route. Even small additional speed limits in the future, combined with possible rough seas, would lead to delays. In Naantali, Finnlines can set its schedule more freely and flexibly. The road connections to Naantali in terms of cargo are also at least equally good, if not better, compared to Turku, Helsinki and Stockholm. And the connections will be improved further when the Turku ring road, the Raisio crossing area and the E18 road will be completed," Vainiala lists.

The size of the ships sailing on the route in question has increased over the years, but at the same time, energy efficiency has improved, too, and the vessels are more environmentally friendly. Tallink & Silja Line, Viking Line, and Finnlines all have vessels operating between Finland and Sweden with bilingual Finnish-Swedish crews. The current ice class of all vessels is 1A Super or at least 1A. However, Finnlines' ro-paxes differ from the competition, as they are mainly designed to fit cargo transportation, while the passenger offer is more suited to the motorised ones, travelling for business purposes or taking an excursion aboard their own vehicles. "Unlike passenger car ferries, Finnlines' ro-paxes offer considerably more lane metres for cargo; the vessels can be driven through, they include a spacious cargo hold without dividers, the ramps and deck structures are strengthened to endure such special loads that are also allowed on the road. The vessels of Finnlines also have a large weather deck for tank truck transports of dangerous goods that require segregation. Furthermore, their ships can be loaded and unloaded efficiently through the upper and lower decks simultaneously, using the adjustable upper and lower ramps built in the ports of Naantali and Kapellskär. The vessels are also equipped with internal ramps and lifts which can be used by trucks," Vainiala highlights. He furthers, "Passenger car ferries have much fewer lane metres available in general, but especially for cargo. Moreover, not all lane metres can be utilised in the most effective way. On some passenger car ferries, part of the lanes have low ceilings and are intended for passenger cars, while there is not enough room for trucks. The load factor also depends often on how much cargo the trucks and trailers contain because, in some passenger ships, the Plimsoll line is reached easily. It is also decisive how vehicles are entering the ship and how the loading can be planned and optimised."

"We're ready to do our part"

In early 2020, Finnlines said it ordered two new ro-paxes, each worth some $135m, from China Merchants' CSC Jinling (Weihai). Dubbed the Superstar ferries, they are expected to be delivered by 2023. According to the shipowner, the vessels will be placed



Photo: Port of Naantali

on the Kapellskär-Långnäs-Naantali route. They will be larger than the existing Star-class vessels and will be Finnlines' flagships both in terms of size and technology. With a length of about 230 metres, their loading capacity will offer 5,100 lane metres for rolling freight, over 40% more stowage capacity than the current ships on the route. There will be room for around 1,100 passengers as well. The newbuilds will have the highest Finnish/Swedish ice class, and their design will incorporate the latest in environmental technology, something Finnlines has accustomed us to over the years.

To keep us with these offshore developments, the port is also investing in the development of the traffic between Naantali and Kapellskär. Over the past couple of years, the port has, among many, expanded the adjoining areas for trucks and trailers, put in place on its ro-ro berth douple-stack adjustable



middle (below) and over deck (upper) ramps to streamline the flow of ro-ro cargo units, and extended the entire ro-ro pier by 50 metres to a total of 228 metres. In addition, a new outdoor energy-saving LED lighting system has been installed, which also improved the quality of CCTV surveillance. Alongside cargo-wise investments, the port has been preparing for the future increase in passenger traffic. As such, a vessel waste-water (black and grey) reception facility, including two pumping stations and a sewer which are connected to the municipal sewage network, has been built (with the help of EU funds), rendering the use of tank trucks unnecessary; the total length of the drain pipeline is 2,877 metres. "The investments at the port will continue with the new Superstar ro-paxes. Last year, the port already renewed its gate systems, built a supply store for vessels, and check-in cabins and a cargo office for transports and personnel. Next, the ro-ro quay will be fitted with an automooring system that will ensure faster berthing and more efficient port operations. We will see this in reduced cargo handling times, as loading and unloading of the cargo will take less time. The new vessels will also use the eco-friendly onshore power supply (OPS) solution during port calls, which will reduce noise pollution as well as enable zero-emission port operations. This will require updating the port's electricity supply network, including transformer, dispensers, and a connection cable between the OPS system and the vessel, but we're ready to do our part," Vainiala says. The ports of Naantali and Kapellskär have been granted EU funds from the Connecting Europe Facility for the set-up of OPS installations. "Once the project has been implemented, we will fulfil the requirements of the EU Directive on the deployment of alternative fuels infrastructure (2014/94/EU). In addition, the Port of Naantali received support for building the automooring system and modification of ramps for larger and wider vessels. In addition to these ongoing projects, we also have preliminary plans for the upgrading of existing infrastructure for passengers travelling with or without a vehicle. Our common goal with Finnlines is smooth on-boarding via optimised port facilities," Vainiala adds.

Last but not least, the port is building up its presence in the Baltic as well as across Europe within the EU Trans-European Transport Network (TEN-T) as a Core Port (one of four such in Finland), part of the Scandinavia-Mediterranean Core Corridor. Together with the Ports of Stockholm, Naantali is at the moment involved in the Intelligent Sea – Integrated Digital Services for Efficient and Safe Maritime Navigation EU-backed project.

In two ways

Naantali is approaching port development in a twin-track manner – while taking care of its regular traffic – day in, day out – it, at the same time, prepares for what lies just round the corner. "We are always repairing the port's old infrastructure or building something new. Port operations are highly capital-intensive. The investments, however, are always made for the benefit of the port and its customers in order to ensure the competitiveness of both," Vainiala sums up. ■