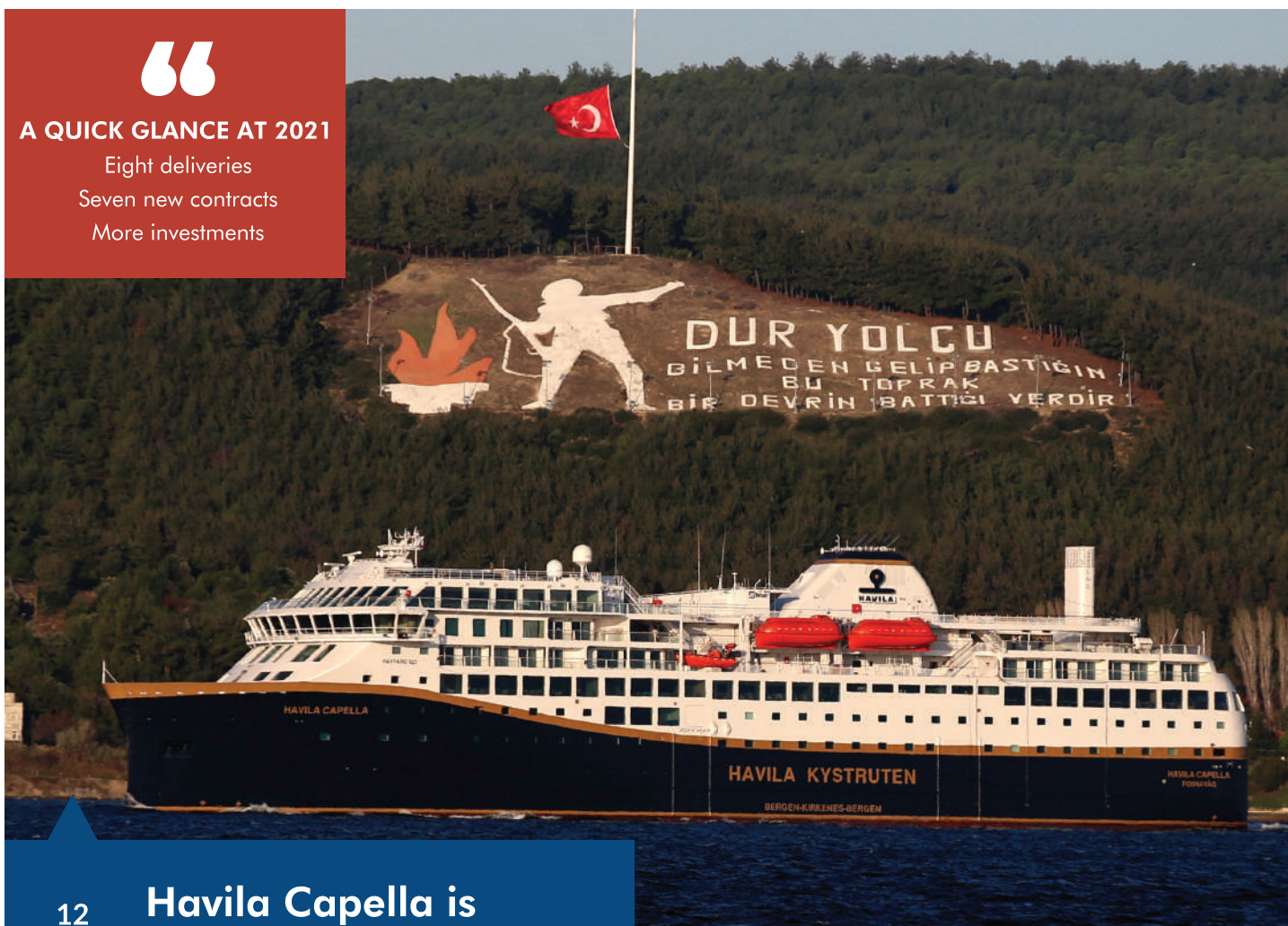




A QUICK GLANCE AT 2021

Eight deliveries
Seven new contracts
More investments



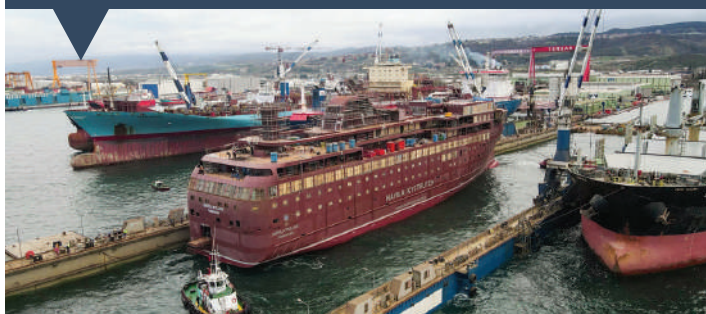
12

Havila Capella is Delivered

Havila Capella started to operate in Norway's Bergen - Kirkenes Historical Coastal Line in December. She is powered by LNG and battery, providing high energy efficiency and complying with the low emission requirements. She has the World's largest battery package; 6500 kWh.

08

Launching of three vessels at one time



06

One more great delivery : Georgiy Meshcheryakov sailed home



Dear Reader;

Welcome to our **eighth** issue.

2021 has been passed with **many news** and **new things**. We wish **health** and **peace** for the whole world.

Tersan's **eighth quarterly newsletter** including news from the **fourth quarter of 2021** is just **one click away** as it always appears online at the same time **our printed issue** is published.

Enjoy Reading!

Business Development and Marketing Department



NB1099 has been launched

We have launched our **99th New Building Vessel, NB1099; Krill Trawler** to be built for Rimfrost, in cooperation with **Westcon Shipyard**. The Kongsberg designed **120 meters Krill trawler** is being built to carry-out krill fishing operations in **Antarctic**. She will be a green vessel satisfying the standards for **IMO's Polar Code, low emission** and achieving the **sustainable energy** usage.



The vessel which will have an optimised diesel-electric propulsion system based on low-sulphur diesel with exhaust gas treatment will ensure minimal emissions and optimum operation.

She will have accommodation for 60 people on board. Tersan is planning to deliver the vessel by the 1st half of 2022.



“ A Quick Glance at 2021

We left 2021 behind us with many challenging ships' deliveries, new contracts and infrastructure developments. Let's take a glance and see what a successful year it was.

A Record With Eight Deliveries

It was a very successful year with the delivery of **eight projects** including milestone ones for both **Tersan** and **Turkish Shipbuilding sector**.

LNG Powered Live Fish Carrier, Bjorg Pauline was the first delivery of the year and her sister **Harald Martin** followed her. Being the seventh delivery to **Fjord1 ASA**; **Rødvenfjord** has already started operating between route **Sølsnes – Åfarnes**. The first trawler of **Okeanrybflot** named after **Georgiy Mescheryakov** was also delivered while the second vessel **Vladimir Biryukov** was launched. **Sayan Prince** built for **Sevnor Offshore** has also left our shipyard to start her operations. **Our 100th project**, longliner factory fishing vessel **Argos Helena** built for **Ervik Havfiske** has been delivered and the naming ceremony was held in Turkey. The most important delivery of the year was **Havila Capella**, built for **Havila Kystruten Norway**. She has already started to go up and down the historical **Bergen- Kirkenes Route** bringing the best comforts to her passengers. The last delivery of the year was longliner factory fishing vessel, **Østerfjord** who has sailed home during the last days of 2021.

7 New Contracts

Beside the successful deliveries, Tersan Shipyard has signed contracts for **seven new projects** within 2021. Consisting of **five fishing vessels and two electric ferries**, new projects' deliveries are scattered among 2023 and 2024.

Having variable lengths between **70 and 120 meters**, the fishing vessels are being designed for different types of fishery operations. Apart from the fishing vessels, **two new eco-friendly ferries** which will be built for **Fjord1 ASA** has been added to our current order book in 2021.

Currently Tersan Shipyard has an active order book with **18 projects** in different stages and that means we will work harder for the next years.

More Investments

With investment planning for every year, we aim to choose the right investments as per our financial and **sustainability goals and objectives**. As we had planned for 2021, nearly **8800 solar energy panels** have been installed to the rooftops of shipyard workshops and started to generate electric. With this investment, we have started to generate **% 30 of our total energy** needs by ourselves.

Beside this green investment, floating dock III has been extended to **310 meters**. She was the **largest floating dock** ever built in Turkey once main section construction completed 2 years ago. With this extension, we will be able to meet the requirement of increasing demands in ship repair.

For all these success, we thank all the **Tersan people for their hardworking in 2021**. We wish you and your loved ones a **happy new year**.



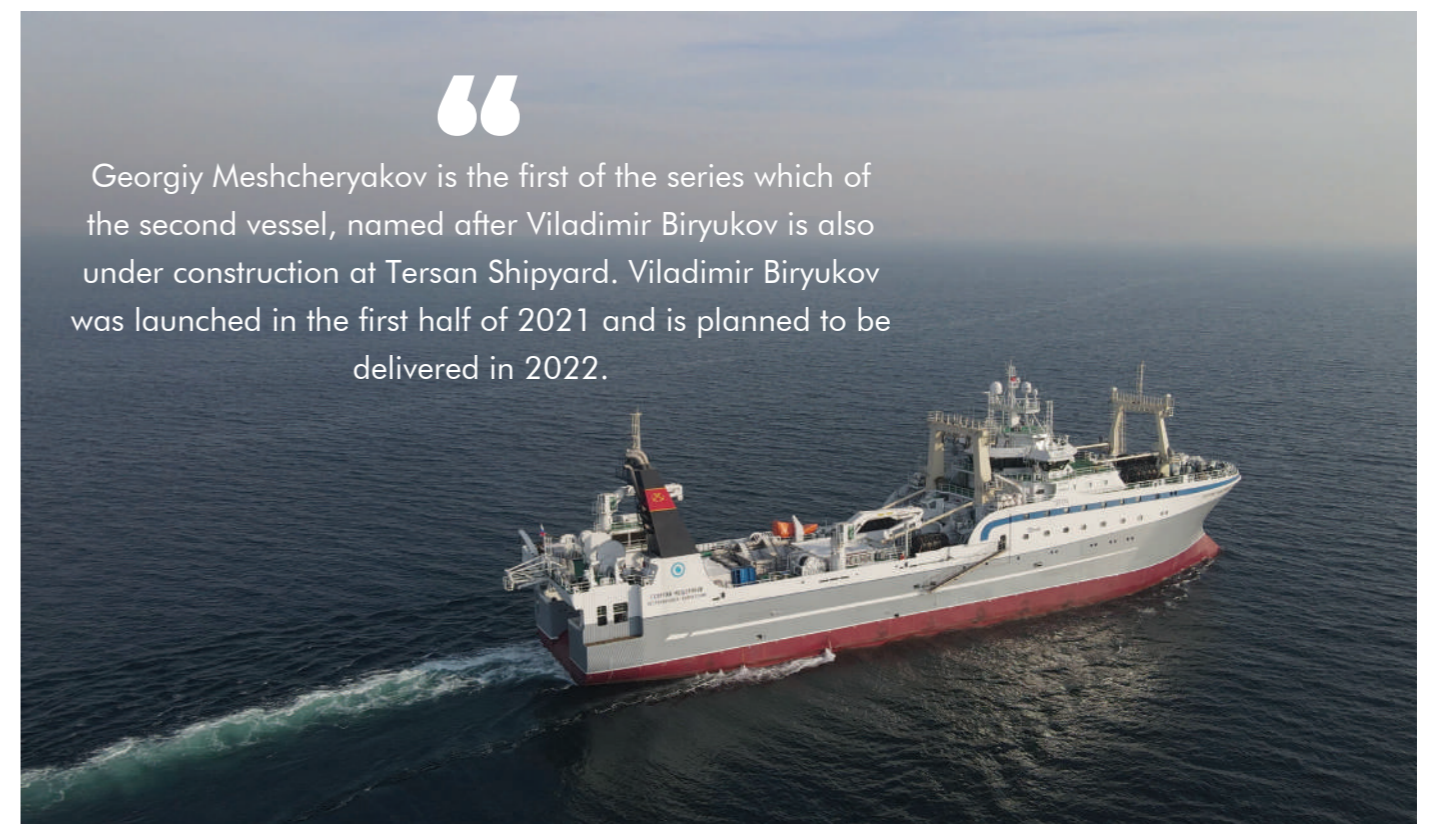
Georgiy Meshcheryakov is delivered!

We have delivered **NB1096, Georgiy Meshcheryakov** to JSC “Okeanrybflot” company of Russia.

Georgiy Meshcheryakov is among the World’s largest purpose-built factory trawlers at its size and beam. She is built for trawling **Alaska Pollock** in the **Sea of Okhotsk**, as well as **Herring, Mackerel** and **Pollock** in the Pacific. She is arranged for pelagic and semi-pelagic trawling, using 2 main trawl winches working in combination with ice trawl gallows and 4 large pelagic sweep line drums. The vessel which is equipped with two main engines each with a capacity of **4.060 kW** and two auxiliary engines each with a capacity of **1.900 kW**, is able to freeze **450 metric tons** of products per day with **4.700 m3** total cargo hold capacity.



Georgiy Meshcheryakov is the first of the series which of the second vessel, named after Viladimir Biryukov is also under construction at Tersan Shipyard. Viladimir Biryukov was launched in the first half of 2021 and is planned to be delivered in 2022.





LAUNCHING OF THREE VESSELS AT ONE TIME

We have simultaneously launched 3rd and 4th passenger vessels **Havila Polaris**, **Havila Pollux** which are the sister vessels of **Havila Capella**, the World's largest battery capacity passenger vessel delivered to the **Havila Kytruten** in November. The third vessel accompanying the launching operation is named **Polar Bay**, Longliner Factory Fishing vessel built for **Polar LTD** from Spain.



Three vessels have been launched with transportation system called self-propelled modular transportation (SPMT) which is previously experienced by Tersan Shipyard. Considering each Havila vessel is **6200 tons** and **124 meters** long and **Polar Bay** is **60 meters** long and about **2000 tons**, a long period of static and engineering calculations have been done prior to the start of the operation.

Approximately 1600 wheels with 200 axles gathered under each vessel and transferred them respectively into Tersan's own floating dock. Once the vessels were secured in their locations in the floating dock, the dock was tugged to her submersing position in the shipyard and submerged to finally let the vessels float on the sea. The completion works like the installation of piping, cabling, ventilation; execution of accommodation systems ; installation and testing of all electronic systems and start up and testing of all machinery and components will be held while the vessels are at the berth until the delivery.



Passenger Vessels: Havila Polaris & Havila Pollux

Designed by **HAV Ship Design** and built under supervision of **DNV**; four Havila Passenger vessels will operate in **Norway's Bergen - Kirkenes** historical coastal route. The passenger vessels will be powered by LNG and battery, providing high energy efficiency and complying with the low emission requirements. Each vessel will have **6500 kWh** battery capacity which means they will have the record of highest battery capacity in a vessel so far. High interior standards will be provided with distinctive and well-designed accommodation areas aiming to bring the best comforts to the passengers on their **Bergen – Kirkenes** historical route. While the first vessel, **Havila Capella** has started its operations successfully, the second vessel, **Havila Castor** is at delivery stage. **Havila Polaris** and **Havila Pollux** will follow in 2022.

Longliner Factory Fishing Vessel: Polar Bay

The vessel, having a **60,5 meters** overall length with a **13,0 meters** beam, is powered by **Yanmar** main engine and she has comfortable accommodation up to **30 people** on board. Beside her longlining capabilities, **Marinteknikk** designed **Polar Bay** is also capable of fishing through her moonpool in the harsh weather conditions and she is outfitted with advanced fish process plant.



Designed by Marinteknikk, Østerfjord is a unique vessel with the newest available solutions and technology in the fields of propulsion, power generation, fishing efficiency and processes, crew safety and comfort. With her propulsion system being a hybrid one with both diesel mechanical, diesel electric and pure electric propulsion options, she provides energy efficiency. Beside its innovative propulsion setup, she will be one of the first purpose-built vessel combining two different fishing methods; longlining and Danish seining which provide the vessel flexibility to catch its quotas. The vessel has also a moon-pool which is providing safe operation in all weather conditions and increased catch rates.

67 meters long and 14,6 meters wide vessel is among the World's largest Longliner and Danish Seiner fishing vessels. She is outfitted with an advanced fish process plant and she is able to fish both by Danish seining and by longlining. Østerfjord is a safe, functional, environmentally friendly and cost-effective fishing vessel with accommodation for 23 people on board.



Last and Eighth Delivery of the year

NB1098, Longliner & Danish Seiner Fishing Vessel built for Østerfjord AS of Norway is delivered. She has been the eighth and last delivery of the year.





HAVILA CAPELLA is DELIVERED

We have delivered the first Coastal Passenger Vessel, Havila Capella to Havila Kystruten from Norway. 124 meters long and 22 meters wide Havila Capella started to operate in Norway's Bergen - Kirkenes Historical Coastal Line in December.

The Biggest Battery Packages in the World

Havila Capella is powered by LNG and battery, providing high energy efficiency and complying with the low emission requirements. She has **6500 kWh** battery capacity which means she has the **World's largest battery** packs so far. Thanks to its **innovative power generation system** and **energy-efficient hull design** Havila Capella can sail for four hours with zero emission. The vessel can be charged with clean hydropower at the quay.

Designed by **HAV Ship Design** and built under supervision of **DNV**; Havila Capella provides **Co2 emissions cut by 25 %** and **NOx emissions reduced by 90%**. She has also heat recovery systems from the sea and cooling water.



High Interior Standards with Distinctive Accommodation Areas

Having the high interior standards and providing well-designed accommodation areas, Havila Capella is a state-of-the-art vessel bringing the best comforts to her passengers on their Bergen – Kirkenes historical route.



THE SECOND, THIRD AND FOURTH SISTER VESSELS,

Havila Castor, Havila Pollux and Havila Polaris are also under construction in Tersan Shipyard.

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HAVILA CAPELLA

Havila Castor will follow Capella very soon and Havila Pollux and Havila Polaris sister vessels will be delivered next year.



Craftsmen of Ships

» Hope to see you in our next issue

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