TELEGRAPH

Wilhelmsen Ahrenkiel Ship Management

STORIES AND SHORT NOTES ON SHORE AND ON BOARD

Experienced and written by our international WASM team

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DEAR TELEGRAPH READERS,

By launching the second issue of our WASM Telegraph, we express our deepest gratitude and appreciation to all of you on board and ashore. We know that these challenging times, marked by the ongoing war in Ukraine, are having an impact on many of our seafarers, families, and friends. Our thoughts and support go out to all of those affected, and we sincerely hope that this war will soon come to an end!

The relationship with our seafarers is of extraordinary importance to us. In 2023 so far, we had the privilege of engaging in personal exchanges during two crewing seminars. We had the chance to address operational challenges as well as to share personal and professional thoughts and extend a helping hand. Open and honest feedback helps us a lot to continuously improve our performance.

The first crew seminar took place in Tagaytay in the Philippines from 14th to 15th February. A dedicated team of nine colleagues from our Rhoon and Hamburg offices was able to exchange ideas

in fruitful discussions with a total of 88 participants and the focus on topics around safety, performance, and drydocking. Just three months later, we met in Varna (Bulgaria) with a similar line-up of 49 seafarers and an equally lively and interesting exchange. Alexander Dimitrevich from Mental Health Support Solutions gave an enlightening presentation on "Let's talk about mental health. Depression" which impressed us and many of the participants.

Presently, we find ourselves in a situation where the flexibility and support of our seafarers are of particular importance, as we are currently taking over the management of five eco design modern 2016 and 2019 built container feeder vessels purchased by our client MPC Container Ships ASA. Many employees in Hamburg are busy with the planning and organization. We are pleased that after all five takeovers have been completed, the technically managed fleet will increase to 65 ships. We are even more excited to expand our fleet by adding

five newbuildings. The first one will be the MV "ZIM Danube". The launching took place on 31. May in Busan in Korea and the delivery is expected in autumn 2023.

Beyond our daily shipping operations, we are focused on the decarbonization of our industry. The introduction of EU ETS (EU Emissions Trading System) at the beginning of next year, but also the immensely increased requirements of our customers and the charterers of the ships provide us with the opportunity to demonstrate our specialist knowledge and expertise. For a deeper dive into these topics and more, we invite you to read our current issue of the Telegraph. We are proud that the content was created and written exclusively by our staff. Our heartfelt thanks go to them!

Happy reading! Yours sincerely,

Dr. Michael Silies

CEO Wilhelmsen Ahrenkiel Ship Management

WASM AS ONE-STOP-SHOP

"COMING TOGETHER IS
A BEGINNING; KEEPING
TOGETHER IS PROGRESS;
WORKING TOGETHER IS
SUCCESS" (HENRY FORD).
THIS QUOTE FROM THE
FAMOUS INNOVATOR AND
AUTOMOTIVE PIONEER
PERFECTLY DESCRIBES
THE LAST TWO YEARS OF
WILHELMSEN AHRENKIEL
SHIP MANAGEMENT.

WASM Management

In an official announcement made in October 2020, it was revealed that the Wilhelmsen Group had formed a joint venture with MPC Capital and acquired 50% of the shares in Ahrenkiel Steamship. This marked the beginning of an impressive journey towards transforming the daily operations of the company.

The new joint venture under the name Wilhelmsen Ahrenkiel Ship Management combines the unrivalled maritime expertise of two big players in the industry, which also match well in terms of corporate strategy and culture. Both companies are family driven, but at the same time have access to and experience in the capital markets. They also share a similar

asset-light/asset-heavy strategy, i.e., on the one hand the owner side with Wallenius Wilhelmsen and the manager side with Wilhelmsen Ship Management and on the other hand MPCC as owners and customers and Ahrenkiel Steamship (at that time) as managers.

Complementary business fields are another characteristic of the joint venture partners worth to be highlighted. While Wilhelmsen has focused on car carriers, specialized tankers, and bulk carriers, WASM has concentrated on container ships, which brings a valuable exchange of experience between different shipping sectors for both companies. Furthermore, our WASM offices in Hamburg and Rotterdam will



expand the WSM network – the largest maritime network world-wide – to which we will also get access through the joint venture.

Both companies have a very similar view on future trends in ship management. Independently of each other, both have their own strategies in terms of IT-systems, performance systems, digitalisation as a broad topic, but Wilhelmsen is already active in the field of autonomous ships and has more experience with alternative propulsion technologies.

Last but not least, the common approach of the joint venture partners to corporate culture needs to be mentioned and should not be underestimated for cooperation

and integration aspects. By late 2021, the transformation process had gained momentum, and the company had delved deeper into the new operational and organisational structure. Major tasks such as safety & quality, procurement, planned maintenance, dry dock, accounting and financial reporting were included in the new structure. The revised shareholder structure resulted in the adoption of new processes, integration of advanced IT systems, and expansion of operations in an intercultural environment with key contact points situated in Malaysia and India.

As of January 2023, the company has successfully concluded the first full year under the

new setup. Looking back, 2022 was a year filled with new information to digest, lessons to be learned, and processes to be refined. While the environment was quite stressful for our colleagues, they remained highly committed, eager to learn and develop, and persistent throughout the journey.



Both companies have a very similar view on future trends in ship management.

NEW BUILDING OF CONTAINER VESSELS WITH PARTNERS

LIVING JUST OUTSIDE ROTTERDAM NOWADAYS MAKES IT NECESSARY TO CROSS THE BRIENENOORD BRIDGE EVERY MORNING TO GO TO WORK AT THE WILHELMSEN AHRENKIEL OFFICE IN RHOON. FOR MOST DUTCH PEOPLE READING THIS ARTICLE, YOU ARE PROBABLY FAMILIAR WITH THE PHRASE THAT THE SLEEVES OF YOUR SHIRT GET ROLLED UP WHEN CROSSING THE BRIENENOORD.

By Walter Koglin, Director Newbuilding

After having been away from my birthplace for so many years, despite the traffic, I still enjoy crossing the bridge to get to the office we set up in 2018. But this article is not about Rotterdam, so we do not have to detail the city being known for a place of labourers (or the engine of The Netherlands, whereas money gets spent elsewhere), neither about the office in Rhoon, nor the activities involving my shift from being General Manager for the office to construction of new vessels, but of vessel new building activities our company engages in. I am still under the Dutch structure and support where I can and continue with activities for the Dutch entities under MPC Invest B.V. (or MPC Container Ships). With a managed fleet with an average age of 15 years, an increase in regulatory changes in the shipping industry, as well as global awareness to decarbonise the (marine) industry, we are proud to be part of a team of different stakeholders engaging in activities evolving around construction of new and modern container tonnage.

Having said that, but now in a less corporate way: "Ek baar muskara do!" is what it said in Hindi on the license plate of my motor bike while traveling around South and Southeast Asia during the 2nd half of the 90s. To my knowledge, it means as much as "one time you will give me a smile", which was meant differ-

ent there and then and now puts a smile on a lot of faces because orders for new building of vessels are placed again within the group after so many years of crisis in the shipping industry.



MPC Capital AG placed orders for the construction of 4+2 5,500 TEU container vessels with HJ Shipbuilding & Construction towards the end of 2021, in connection with a seven-year time charter with ZIM.



Since then, MPC Capital AG has been diversifying the stakeholders. Wilhelmsen Ahrenkiel has been nominated as the future manager for five of the six vessels and has been and still is playing a supportive role during the technical specification negotiations with the builders HJSC, equipment selection and any matters (often of technical nature), that might arise. Working hand in hand with the project team of joint venture partners, Wilhelmsen Ship Management and their site team continue to supervise the ongoing construction in Busan, Korea. The vessels are being built to modern specs, powered by a MAN 6G80ME-C 10.5-HPSCR, built by Hyundai-EMD. Together with partners at the building yard and others, we have been working on a design to possibly convert the vessels at a later stage for carbonneutral operation on green methanol. A respective class notation, as well as EEDI-phase 3 and NOX Tier III standards will be applied. The first vessel is expected to be delivered in Q4/2023, possibly earlier. Another project we are engaging in is two 1300 TEU feeder container ships ordered with a propulsion drive train able to operate on (green) methanol.

A project consortium between MPC Capital and the Wilhelmsen Group, with both vessels chartered out for 15 years to NCL, cargo provider of Elkem, who is a producer of silicon products. The vessels will be deployed in Northern Europe, servicing ports in Norway, The Netherlands and Germany, with the intention to establish the first "Green Corridor".

Of open top design, able to carry up to 380 FEU, the vessels will have one cargo hold with a hydraulically operated pivoting hatch cover and three cargo holds without hatch covers.

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Equipped with two robust Liebherr hydraulic ram operated cargo cranes of reinforced design compared to earlier models. Powered by a MAN Designed, Hyundai 6S50ME-C9.6-LGIM-Eco EGR engine, Berg CPP system and propeller shaft, one magnetic Shaft Generator installed in shaft line for PTO/PTH application. Maybe interesting to mention that PTH operation means Driving the Alternator as propulsion motor operated in Power mode.

As an auxiliary electrical generating plant, the vessels will have installed three Daihatsu 6DE-23 Generator Sets and one Emergency generator engine. A battery pack will be installed to serve the hotel load.

Being able to serve smaller ports, the vessels will be, apart from having a CPP system, equipped with a rudder of full spade flap type and fitted rudder bulb. Bow and stern thruster as well as ICE (A1) and NAUT (AW) notation for North Sea and Norwegian coastal trade.

The vessels have been ordered to high specs in China at the Taizhou Sanfu Ship Engineering Co.Ltd. and are expected to be delivered in Q3 and Q4/2024. Wilhelmsen Ahrenkiel will become the technical managers and are, together with partners of the Wilhelmsen Group, engaged in all operational and technical matters that might occur during the construction period of the vessel(s).



We are looking forward to a smooth building process, mobilization and commissioning of the ships and welcoming them into management, as well as engaging in further activities related to development and construction of vessels.

5,500 TEU CLASS CONTAINER VESSEL SITURD GOOGLE TO A STATE OF THE STAT

INTRODUCTION OF MARTIN DE VRIES

GENERAL MANAGER OF WILHELMSEN AHRENKIEL SHIP MANAGEMENT B.V.

I AM THE NEWLY ASSIGNED GENERAL MANAGER OF WILHELMSEN AHRENKIEL B.V. (WASM B.V.) IN THE RHOON OFFICE, A POSITION WHICH I HAVE HELD SINCE 1 OCTOBER 2022. MY NAME IS MARTIN DE VRIES, AND I WAS BORN IN DELFT IN 1966.

By Martin de Vries, General Manager

Delft is known worldwide for its blue and white pottery, the canals, and the historical relationships with the Dutch royal family. Delft is relatively close to Rhoon.

Due to the new building developments in 2022, MPC Capital, MPC Container Ships and other investors ordered eight vessels and to serve the needs of our current customers, and especially also to attract new customers, a dedicated new building team was established that focuses exclusively on this topic. Walter Koglin exchanged his position as General Manager of WASM B.V. for the position of Director New Buildings. This gave for me the opportunity to take over the position from Walter as General Manager of the Dutch office. In Dutch, they call me a "Stacker"

(Stapelaar) as I have followed all three levels of the Dutch secondary school system. I started my working life back in 1987 with PWC auditors in Rotterdam as an assistant accountant. In almost 10 years, I was able to gain a lot of experience in dealing with different clients - from very small domestic companies and associations to big international multinationals in various industries. On the other hand, I was able to learn about simple and complex accounting environments. In these years, I achieved a bachelor's degree in accounting.

I enjoyed working in an international environment and continued my career in 1996 with an aviation leasing company start-up at Schiphol Airport, Amsterdam. I was blessed to be part of several in-

ternational projects to enable the growth of the company. During this period, I was part of the project team to implement new accounting systems after several acquisitions of main competitors. The aviation industry is very dynamic and international, and I had the pleasure of working with people coming from different backgrounds and 25 different nationalities.



I started back in July 2018 with the predecessor of WASM BV Ahrenkiel Steamship B.V. as Manager Finance & Accounting.

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In 2018, the management decided to cease the aviation activities in the Netherlands and move the head office to Dublin, Ireland.

In the meantime, during this working journey, I became a married man and a proud father of two boys. We made the decision to stay with our family in the Netherlands, and I left the aviation industry.

This opened the opportunity forme to explore other possibilities and challenges, and I was lucky to find employment in another dynamic environment and exchanged the aviation industry for container vessels in the maritime industry.

Both industries do have a lot of interfaces and similarities. Since the start, I have enjoyed the international environment as well as the diversity of the work. And as Delft is so close to Rhoon, it

reduced the commuting time significantly, which is highly appreciated by me and my family.

As the company was established as a Dutch branch office from the Hamburg office only shortly before I joined in 2018, a lot of things had to be set up and developed.

During the year 2020, I was one of the team members of Project Springboard from the Finance department. This project group was established after the new joint venture with Wilhelmsen Ship Management was announced. Throughout the pandemic in 2021, we successfully managed to transfer the bookkeeping for 70 vessels to the back office in Kuala Lumpur. It was a great experience and lots of fun to meet the colleagues in Kuala Lumpur face to face during a visit to the service centre in Malaysia.

Apart from enjoying Asian food, running outside, and walking with the dog, I have a broad interest in following the news, watch thrillers, Netflix series and sports and reading. In my free time, we like to spend time with the family and visit interesting countries and cities. Every fortnight, I go with my boys to live football matches to support the number-one football club of Feyenoord Rotterdam with the biggest fanbase in the Netherlands.



This year, I have attended the crewing seminars in Manila (Philippines) in February and Varna (Bulgaria) in May, and I am looking forward meeting other valuable seafarers during new events.



FUTURE ALTERNATIVE FUELS IN THE SHIPPING INDUSTRY

THE INTERNATIONAL MARITIME ORGANIZATION'S (IMO) STRATEGY FOR SHIPPING IS TO REDUCE TOTAL GHG EMISSIONS BY 50% BY 2050 (COMPARED TO 2008 LEVELS) AND TO REDUCE THE CARBON INTENSITY (CI) BY AT LEAST 40% BY 2030 AND 70% BY 2050. THESE AMBITIOUS TARGETS WILL FOR SURE POSE MANY CHALLENGES, FROM THE WELL TILL THE ENGINE'S INJECTION POINT ONBOARD THE VESSELS. BELOW IS A COMPARISON OF PROS AND CONS BETWEEN DIFFERENT ALTERNATIVE FUELS, CARBON CONTENT AND IMPACT, AS WELL AS INFRASTRUCTURES AND HANDLING.

By Lucian Stavarache, Fleet Manager

CARBON-BASED FUELS

Liquified natural gas (LNG)

Advantages: Clean fuel with the lowest carbon content / Existing and further developing global infrastructure / Global availability / Long term solution for 2S & 4S engines.

<u>Challenges</u>: Potential methane (CH_4) leaks from the engines / Cryogenic plants needed / 2 to 3 times larger storage tanks needed compared to conventional fuels.

Liquified petroleum gas (LPG)

<u>Advantages</u>: Good alternative with lower CAPEX comparing to LNG / Increased boiling point compared to LNG, therefore the liquifying and handling pose lower challenges (being a mixture of propane and butane).

<u>Challenges</u>: Limited supply worldwide due to bunkering infrastructures / 2 to 3 times larger storage tanks needed compared to conventional fuels.

Methanol

<u>Advantages</u>: Good alternative with lower CAPEX compared to LNG / Easier handling and storage compared to LNG by avoiding cryogenic plants / Good terminals worldwide network / Long-term solution for 2S & 4S Engines.

<u>Challenges</u>: Higher flammability / 2 to 3 times larger storage tanks needed compared to conventional fuels / Limited bunkering facilities.

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CARBON-NEUTRAL FUELS

Biofuels (ex: hydrotreated vegetable oil - HVO)

Advantages: HVO is a high-quality fuel / Safe to handle / Can be blended with conventional fuels or used as blend-in fuel / Compatible with the existing engines and fuel systems.

<u>Challenges</u>: A mass-scale production seems not sustainable / High production costs.

Synthetic methane/substitute natural gas (SNG)

<u>Advantages</u>: Good compatibility with LNG propulsion technologies / Can be used as drop-in fuel.

<u>Challenges</u>: High production costs / To be carbonneutral, it requires renewable energy sources.

"ZERO"-CARBON FUELS

Ammonia

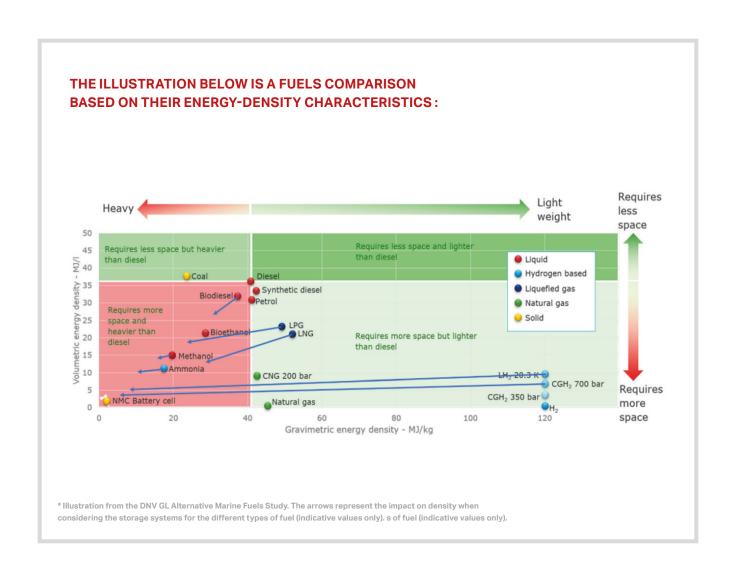
<u>Advantages</u>: Carbon-free fuel / Zero ${\rm CO_2}$ production emissions if is produced from renewables / Long-term solution for 2S & 4S Engines.

<u>Challenges</u>: High toxicity / Limited bunkering infrastructure / High storage tanks capacity needed compared to conventional fuels / High costs fuel.

Hydrogen

<u>Advantages</u>: Carbon-free fuel / Zero ${\rm CO_2}$ production emissions if is produced from renewables / higher specific energy than conventional fuels.

<u>Challenges</u>: Limited bunkering infrastructure / High flammability / Very low liquifying point resulting in cryogenic plants need / High fuel costs.





THE ILLUSTRATION BELOW SHOWS AN OVERVIEW OF THE EXISTING AND FUTURE ALTERNATIVE FUELS OPTIONS, BEING ASSESSED FROM VARIOUS PARAMETERS POINT OF VIEW AND SUBSEQUENTLY RATED WITH COLOURS:

| Fuel | HFO + scrubber | Low sulphur fuels | LNG | Methanol | LPG | HVO (Advanced biodiesel) | Ammonia | Hydrogen | Fully- electric |
|--|-------------------|-------------------------|-----|----------|-----|--------------------------------|---------|----------|--------------------|
| High priority parameters | | | | | | | | | |
| Energy density | | | | | | | | | |
| Technological maturity | | | | | | | | | 0 |
| Local emissions | | | | | | | | | |
| GHG emissions | | | (2) | | | | | | |
| Energy cost | | | | | | | | | (4) |
| Capital cost Storage | 8 | 8 | | | | | | | |
| Bunkering availability | | | | | | | | | |
| Commercial readiness (1) | | | | | | 0 | | | (5) |
| Other key parameters | | | | | | | | | |
| Flammability | | | | | | | | | |
| • Toxicity | | | | | | | | | |
| Regulations and guidelines | | | | | | | | | |
| Global production capacity and locations | | | | | | | | | |

⁽¹⁾ Taking into account maturity and availability of technology and fuel.

⁽²⁾ GHG benefits for LNG, methanol and LPG will increase proportionally with the fraction of corresponding bio- or synthetic energy carrier used as a drop-in fuel.

(3) Results for ammonia, hydrogen and fully-electric shown only from renewable energy sources since this represents long term solutions with potential for decarbonizing shipping. Production from fossil energy sources without CCS (mainly the case today) will have a significant adverse effect on the results.

⁽⁴⁾ Large regional variations.
(5) Needs to be evaluated case-by-case. Not applicable for deep-sea shipping.

^{*} Illustration from the DNV GL Alternative Marine Fuels Study



The "full electric" option is also a "zero"-carbon solution, but it has for the time being a very limited applicability due to several challenges, such as:

- Extremely high costs for the batteries (making this option unrealistic for small and above tonnages)
- The size and weight of the batteries together with the high-power charging needs
- The batteries must be charged onshore using the terminal grid when the vessel is alongside

Still, a certain number of rather very small tonnage vessels are operating in "plug-in hybrid" solution and have a conventional engine onboard.

All in all, there is no 100% winning solution that is generally applicable because CAPEX for retrofitting existing tonnage or new buildings, alternative fuels bunkering infrastructure and onboard safety are major criteria to decide upon. If considering LNG as alternative fuel, for example, vessels which have a long-term set charter and frequently calling ports in Northern EU and/or USA/ Florida could be converted to use this fuel, since these regions are having a good LNG bunkering infrastructure. Same criteria would go for the methanol case, considering that both Norway and Germany already developed bunkering infrastructures for this fuel. WASM will take into management in 2024 a number of 2 x 1300 TEU vessels running on methanol and, starting with summer 2023, a number of 5 x 5500 TEU vessels that are dual-fuel ready (methanol ready). For the first 2 vessels, the selected crew and the responsible team ashore (vessel manager, fleet manager) will need to attend introduction and advanced courses related to engines operation on purely LPG, LPG storage systems and LPG handling. And, as a near future readiness, more and more crew members and all vessel managers and fleet managers will need to attend these important courses eventually.

As always, WASM will fully rely on our good crews and support them with all needed solutions and training for operating such new and challenging vessels.



The beauty of this remains the challenges in the near future, and one can only evolve in his career and competences by accepting these challenges and transforming them into a new path to success!



*References: Alternative-Marine-Fuels-Study_final_report_25.09.19, from DNV-GL // Future marine fuels: Pathways to decarbonisation, Oct. 7 2019, from BV.

FLEET PERFORMANCE – THE FOCUS ON DATA

BESIDES TRADITIONAL TECHNICAL VESSEL MANAGEMENT FOR ENSURING THE SAFE AND CONTINUOUS OPERATION OF THE FLEET, THE IMPORTANCE FOR OPERATIONAL VESSEL DATA AND RELATED SERVICES HAS INCREASED IN RECENT YEARS.

By Marc Reinhard, Head of Fleet Performance

Data is required for compliance purposes as well as for fleet performance monitoring and analysis. EU MRV (2018) followed by IMO DCS (2019) have set the first mandatory data standards for global shipping, which now also form the basis for further regulations such as CII (Carbon Intensity Indicator) and EU ETS (EU Emission Trading System). In addition to standardisation, the completeness and quality of the collected data plays a central role. Without achieving both criteria, data does not offer sufficient trust and thus no value for solid analyses or insight-driven decisions.

Data collection is still mainly done via manual noon reporting by the crew. On charter vessels, the crew does this once for the charterer and once for the technical manager & owner of the vessel, as both parties often bring different noon reporting solutions on board to integrate the data into their

respective data and IT infrastructures. Presently, this duplication of data collection efforts by crews is difficult to resolve due to various impediments. Increased data transparency in the wake of CII and EU ETS and further developments in this area will hopefully ensure the willingness of each stakeholder to bring the matter into the domain of onshore data integration and avoid duplication of reporting efforts for crews. The ongoing deployment of cloud solutions including APIs brings the technical basis to a future solution.

In the case of data inaccuracies and erroneous data, the crew is often instructed to check their data entries. But it must be clearly stated that the crew can only enter the data as well and accurately as it is available to them. Therefore, investments in measurement & sensor equipment, its maintenance, and its calibration are the key to reliable data and

its availability in the first place. In addition, ongoing crew training is needed in how to read, aggregate, validate and enter the data into the provided manual reporting tool. It is essential that the crew and the shore organisation work together in data collection and that the purpose is made clear to the crew as well. Without this common understanding of the relevance of data, it will be difficult to achieve a sufficient data quality.



There is a widespread desire for further automation of data collection and flows, such as equipping vessels with a high-frequency sensor data collector, which is directly connected to the sensor equipment via various interface protocols.

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Such projects are placed in the context of the digitisation of vessels and hold the prospect of increased transparency and availability of data. Sensor data is used to get a higher data density and as an additional data source for the benefit of data validation. Furthermore, the sensor data must be related to the manually reported data like events to give it a context for analysis purposes. Maintenance efforts after the implementation of such systems must be taken into account as well as the availability of skilled people to work on the data.

At Wilhelmsen Ahrenkiel Ship Management, our fleet performance department is responsible to deliver related services to owners, charterers, and our commercial & technical teams. Driven by CII and EU ETS, various efficiency projects in collaboration with owners and charterers are currently underway; see our article "Energy saving is the only way but are you choosing it the right way?". In the direction of data, this includes the implementation of the stated sensor-based data collection on the existing fleet as well as on the upcoming new buildings. But collecting data alone will not improve the performance of the fleet. The team setup and related processes must also adapt to the new demands. Therefore, we have established a team with various

skills from different disciplines, focusing on technical projects on the one hand and data analytics on the other. The crew involvement and training are part as well, e.g., by way of regular crew briefings including regulatory updates and best practices.



Our aim is to support our clients with high-quality fleet performance services by recognising data insights as one of the main drivers for their successful business.

SMOOTH SAILING, GREENER TRAILS, OUR ENERGY SAVINGS SET THE WINDSAILS

IT IS KNOWN THAT THE INTERNATIONAL MARITIME ORGANIZATION (IMO) HAS ESTABLISHED AMBITIOUS TARGETS IN ITS 2018 GHG (GREENHOUSE GAS) STRATEGY, AIMING FOR A 50% REDUCTION OF TOTAL EMISSIONS IN THE MARITIME INDUSTRY BY 2050.

By Eckard Rogg, Vessel Manager & Anuroop Chopra, Fleet Performance Analyst

This regulatory mandate has prompted shipowners to take concrete steps towards decarbonizing their fleets. In this context, reducing energy consumption has become a top priority, and the urgency to address climate change is greater than ever before.

In today's market, there are many potential energy-efficiency and optimisation measures available, presenting a challenge for shipowners to evaluate the most suitable options. At Wilhelmsen Ahrenkiel Ship Management, we understand this challenge and offer our expertise through our Fleet Performance department. Our team can help evaluate a range of options to identify those that are not only profitable but also technically feasible and safe for our clients. With our technical expertise, shipowners can make informed decisions and optimise their fleets for maximum efficiency. As the saying goes, "you cannot analyse what you cannot measure." With this principle in mind, our Fleet Performance department has launched a retrofitting project together with different shipowners as clients that aims to renew the main engine, auxiliary engine, and auxiliary boiler flowmeters of around 60 vessels altogether for various shipowners. The state-of-the-art digital flowmeters are equipped with integrated temperature sensors boasting an accuracy range between 0.1% to 1%. Multiple signal outputs enable real-time monitoring of values both in the engine control room (ECR) and on the bridge.



The Energy Efficiency Existing Ships Index (EEXI) is a measure of a ship's energy efficiency. It sets out the minimum energy efficiency requirements for existing ships and is used to determine whether a ship is compliant with the reduction measures. Improving energy efficiency in the shipping industry is crucial for complying with EEXI requirements. There are various measures and technologies available to achieve this goal, including the installation of shaft power monitors combined with shaft power limitation (ShaPoLi). We are currently working on retrofitting around 50 vessels with ShaPoLi, and the combined implementation of a sensor-driven performance monitoring system connected to the shore is another promising project. ShaPoLi is a technology that limits the power output of a ship's propeller shaft. By limiting the shaft power output to the level required for a given voyage, ShaPoLi can help to improve energy efficiency and reduce emissions.

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Ensuring energy efficiency is crucial for meeting the Carbon Intensity Indicator (CII) regulation. Compliance with this regulation is required every year and is a critical aspect of responsible maritime operations. To promote fair competition, the International Maritime Organization (IMO) has introduced correction factors that can enhance the CII ratings. One such factor pertains to fuel consumption while transporting reefer containers. Our team understands the significance of this factor and is taking proactive measures to accurately measure the reefer energy consumption. We are installing Rogowski coils

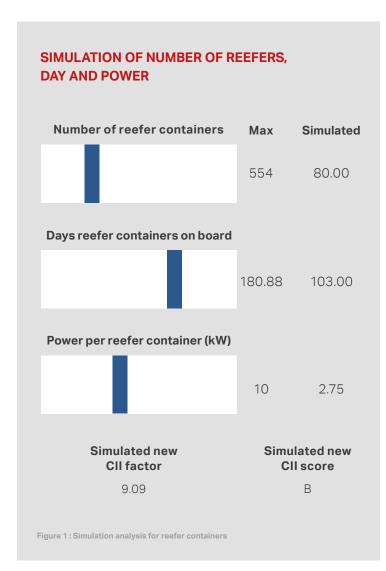
- equipment that measures energy consumption by the electrical consumer with precision. The installation of this small but effective equipment will not only help in correctly applying the reefer energy consumption but also assist in power management systems.

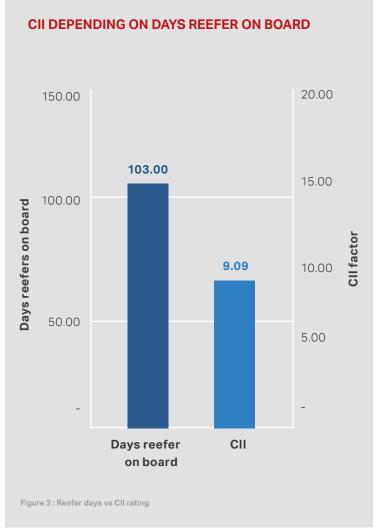
At our company, we recognise the untapped potential of energy from flue gases on board ships. Recently, we have been working with a prominent client in the maritime industry to evaluate the feasibility of utilising waste heat energy from auxiliary engines. By using the flue gases from the auxiliary engines to generate steam

that would otherwise be lost, this measure can significantly reduce the use of oil-fired boilers during port stays, anchorages, and drifting conditions. In addition to its fuel-saving potential, this measure offers a fast return on investment.



The micro-boilers we use have a positive impact on the vessel's carbon footprint, making it a sustainable and efficient solution.





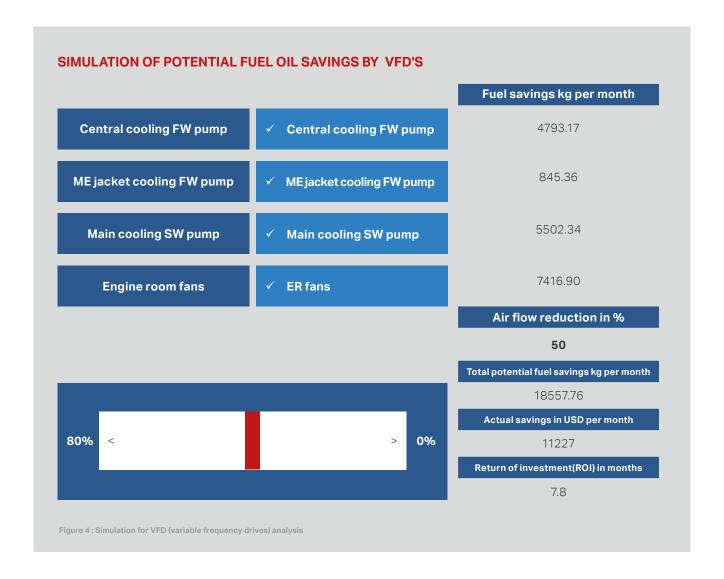


The figure below explains the fuel consumed by the auxiliary boiler from a sample vessel in our fleet. The analysis was carried out over a span of 3 months. This results in the savings in the range of 20–30 % of fuel consumed during port stays from the auxiliary boiler.

We realise the importance of energy efficiency and reducing operational costs. In line with this, we have tasked our performance department with conducting a feasibility study on the potential benefits of implementing variable frequency drives (VFDs) for our major energy-consuming motors. By regulating the speed of the motors in response to load demands, VFDs have the potential to significantly reduce our energy consumption and associated costs. Based on preliminary studies, we anticipate a fuel savings of around 4–5%, as well as reduced mainte-

nance needs. We are committed to adopting sustainable and cost-effective solutions across all aspects of our operations, and the implementation of VFDs is just one example of our ongoing efforts to minimise our environmental footprint and optimise our performance. We look forward to sharing the results of the feasibility study with our stakeholders and exploring potential opportunities for further energy savings and efficiencies.

1006 Hrs 347 hrs 92.93 MT Time at sea Time in port Total fuel consumption 177 hrs 677 Hrs Possible fuel savings Time in Time on anchor in 3 months manoeuvering 42.88 MT 2208 hrs Fuel savings Time reported Figure 3: Sample vessel analysis for fuel savings from auxiliary boiler



Slow steaming is a technique used widely by shipowners and charterers where vessels reduce their speed to consume less fuel, resulting in reduced emissions and cost savings. To further analyse the potential and optimise the low load operations. According to our vessel manager Mr. Eckard Rogg, the system is advanced technology employed in mechanically controlled two-stroke engines. Its primary function is to maintain the optimal cylinder pressure for improved engine performance and fuel efficiency. This is achieved through precise control of the fuel injection timing using an electronic actuator mounted on the VIT (variable injection timing) rack. With this system in place, the engine operates more efficiently, reducing emissions and extending its lifespan.

Overall, as seen from various projects and our experience with energy efficient technologies, compliance with energy regulation is the need of the hour. And there is a lot of potential in energy saving measures. But there are lot of factors to be taken into account in selecting the right choice of measure. These include the cost of implementation, the ship's type

and size, the operating conditions, kind of environmental regulations, and retrofitting feasibility.



It is necessary to weigh the initial investment against the potential long-term cost savings, select appropriate technologies for the ship's type and size, and choose technologies that can operate efficiently under different weather and sea conditions.



WE ARE VERY PROUD TO ANNOUNCE THAT MRS. ROSEMELYN DE VILLA BOONGALING TOOK OVER HER FIRST COMMAND ON OUR AS PATRIA AS THE FIRST FEMALE CAPTAIN IN WILHELMSEN AHRENKIEL SHIP MANAGEMENT.

By Laura Paschburg, Trainee

Having a woman in a leadership position is not a special event anymore in today's times, but in the male-dominated world of shipping, this is a small milestone towards a tolerant world where gender does not matter anymore, but only people, their experience, and skills. No matter how long a road is, it's always worth taking if something great comes out of it in the end.

Captain Rosemelyn de Villa Boongaling's path began in the Philippines, where she was born as one of five siblings. Her ultimate goal at first was not to pursue a career in seafaring but also to graduate with a degree in order to have a good path in the working world in the future. There was always the dream of something "big" in her, but as a

child she could not yet interpret it, and it was not yet clear to her where this dream could lead. While she was working towards her degree, the "big thing" came back to her mind, which eventually turned out to be a "ship". And so it was that she took up her first contract as a cadet on a container yessel.



The biggest hurdle was making the big step from junior officer to chief officer. Every job on board is different, challenging and a neverending dynamic process.

 \triangleright

But her family has always been behind her. Her father, in particular, has believed in her from day one. And it was probably also this family backing that supported her during her first voyage as a captain. Looking back, she explained that this time seemed surreal to her and that the busy trade took over her completely. The cohesion of the crew on board is all the more important. But even there, Captain Rosemelyn de Villa Boongaling quickly developed a sense of how to keep her crew together. On Halloween, for example, there was a little free time at sea, so "Rose", as she is also known, organised an unplanned buffet dinner on deck. Afterwards, anyone who wanted could participate in a table tennis tournament and win small prizes. "With all the crew coming from a full day of work, it was so delightful to see that everybody still participated and had some fun during the day. At the end of the day, I realised that having four stripes on my shoulder means not only big responsibility but perhaps it is the duty to fulfil and serve the purpose that I am charged with," summarised Rose after the event.

Head of Crewing Susanne Petkovic has accompanied Rosy for a long time at Wilhelmsen Ahrenkiel Ship Management: "Since I first met her, I've known she has a big heart. When she took over from the previous captain, she gave a 'thank-you cake' to Capt. Salama. I kind of feel like her mentor as I have been guiding her for such a long time. It was a long way to go for her. As a woman in the shipping industry, I always feel that women are expected to be better than men in any kind of position. But in the end, Captain Rosemelyn de Villa Boongaling convinced all of us in Wilhelmsen Ahrenkiel Ship Management that she has the potential to be the leader of one of our yessels. We trust in her."



We wish Captain Rosemelyn de Villa Boongaling always safe sailings and look forward to several more contracts together with her.



FROM CADET TO CAPTAIN & C/E

MANAGING VESSELS MEANS WE NEED TO HAVE A LOT OF COMPETENT CREW. FINDING GOOD CREW IS ALWAYS A CHALLENGE, AND THEREFORE OUR MAIN GOAL IS TO KEEP OUR LOYAL CREW FROM THEIR FIRST SAILING EXPERIENCE UP TO THEIR FINAL RANK.

By Crewing Department

We would like to share the stories of Captain Alvin Aquino and Chief Engineer Johny Richard Ormeno Terrones, who started in their young years and are still sailing on board of Wilhelmsen Ahrenkiel vessels:

Alvin Aguino, Captain

Captain Aquino started as OS in 2008 on the T&H vessel "Appen Anita". He was promoted to 3rd officer in 2010 and only needed two contracts to become 2nd mate in 2012, after which he reached the Chief Mate position in 2016. On 26 June 2022, we gave him "AS Svenja" to command.

Captain Aquino: "It is usually the wish of every person to be successful. This is the reason why most people strive to secure careers that are not only successful but also lucrative. Having a successful career could take either a few years or a whole lifetime. Choosing a career helps to increase your determination to suc-

ceed. The choice to make your chosen dream a reality requires faith in yourself. My desire as a seafarer is to help my family cope with poverty and for my siblings to have an education and eventually have an opportunity to earn an income and become successful in their chosen career. I started as OS on MV Appen Anita in 2008, after two years, I acted as 3rd officer for two contracts, served four contracts as 2nd officer and eight contracts as Chief Officer until I was promoted to Captain in June 2022 on MV AS Svenja. During those sailing experience, there were times that I enjoyed the freedom of being one with mother nature and some other times I had to battle nature. However, no career path is easy. And because of my passion for adventure and thrills and my love for the sea, I chose this career. I remember my childhood days in my province, due to fascination with the sea, I would spend most of my time at the sea-

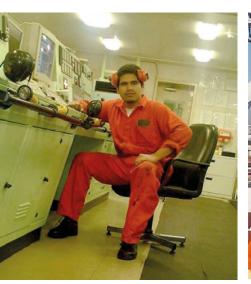
shore, imagining myself navigating a ship across the ocean. That was when I set my heart on becoming a seafarer. Choosing a career helps to increase your determination to succeed. The choice to make your chosen dream a reality requires faith in yourself. Perseverance is the key to open the door to your reality in your future."



Thank you for all the years of guidance and advice you have bestowed upon me, the one who truly moulded me into someone with valuable skills. It is a privilege to work under WASM. I hope to make more years to work with your good company.









Johny Richard Ormeno Terrones, Chief Engineer

Chief Engineer Ormeno Terrones started 30 May 2009 on "AS Alicantia" (after an interview with Crewing Manager Susanne Petkovic in Peru) as an engine cadet. In 2010, he was promoted to 3rd engineer and had nine contracts on bulk carriers. He decided to go back to the container fleet in 2016 and was already promoted to 2nd engineer. On 4th December 2020, he was promoted to Chief Engineer on "AS Savanna".

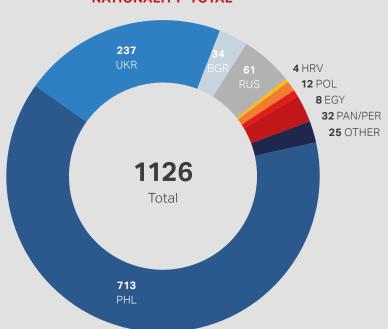
Chief Engineer Ormeno: "I decided to be an engineer because it's a complete career that combines different disciplines and knowledge. As an engineer, I can contribute with technology and analyse situations related to engines and equipment on board. My father has been a fundamental part of my training since I was a cadet. Always giving me his advice and telling me about his stories on board. Now, he is a retired chief engineer and always has a new experience to tell".



Personally, I believe, being an engineer broadens your mind and makes you take important decisions now and for the future.

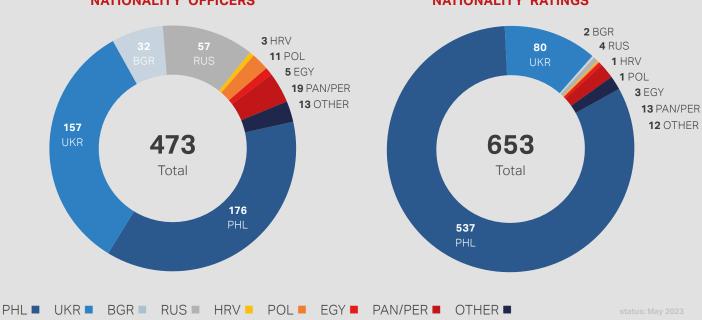
CREWING STATISTICS

NATIONALITY TOTAL



NATIONALITY OFFICERS

NATIONALITY RATINGS



CREW SEMINAR ON THE PHILIPPINES

FROM THE RHOON OFFICE, OUR GENERAL MANAGER MARTIN DE VRIES AND FLEET MANAGER HARM MULDER JOINED THE 15TH WASM CREW SEMINAR IN FEBRUARY. FOR BOTH, IT WAS THE FIRST TIME TO JOIN A CREW SEMINAR AND TO VISIT THE PHILIPPINES. MARTIN WAS SURPRISED ABOUT THE TRAFFIC IN MANILA AND THE HIGH NUMBER OF JEEPNEYS. A JEEPNEY IS A WAY OF PUBLIC TRANSPORT IN MANILA IN ANY KIND OF COLOURFUL VARIATIONS.

By Martin de Vries, General Manager & Harm Mulder, Fleet Manager

On the first day of the visit, Marlow arranged a tour of their facilities and their UMTC training centre. Training courses on all disciplines are provided; from electricians and engineers to nautical officers and cooks.

Training courses are held in classrooms with study material but also a practical approach by having ships' deck and engine equipment available for simulating practical situations like mooring and unmooring for deck and maintenance on machinery. Also, for nautical officers and engineers, the training centre has simulators for bridge, engine room and cargo cranes.

The most important person on board is the cook, and we had the pleasure of joining a lunch that was prepared by the cook trainees, together with an evaluation after enjoying the wonderful desserts. After this educative visit to the Marlow training centre, it was time to travel together with all other colleagues to the Taal Vista Hotel in Tagatay city.

During the morning, presentations were held on actual topics like the general developments of the WASM group, technical issues, big data, and emission reductions. Martin got to introduce himself as General Manager of the Dutch division, and Harm gave a presentation together with Julius Lachica (our vessel manager from Singapore) on dry docking repair specification preparations.

To create even more team spirit, games were held with some very challenging games for the brains! This way, you get to know your colleagues even better, and it is a good way to talk to the seafarers in

a relaxed setting. Of course, in the evening, we had a good meal, a few drinks and some really good performances from some crew members during the karaoke party.

The next day, we continued with some other interesting presentations and a photoshoot outside with the whole group with the Taal Vista as background.



It was an impressive visit with a full programme. All in all, a very successful, well-organised, valuable, and pleasant crew event to join.









LEADING LINE TRAINING IN HAMBURG

THE "LEADING LINE TRAINING" BY MARTIN WINNES IS A CONCEPT WHICH FOCUSES ON LEADERSHIP SKILLS. MARTIN HIMSELF DESCRIBES HIS METHODS AS "UNEXPLAINABLE", AND THEY ARE INDEED UNIQUE. THE TRAINING CONTAINS VERY INTENSE SESSIONS WITH PRACTICAL GROUP EXERCISES AND PROFOUND BRAINSTORMING AND FEEDBACK PARTS. THIS SORT OF TRAINING HAS BEEN CONDUCTED OVER A HUNDRED TIMES WITH PEOPLE FROM ALL OVER THE WORLD WITH MANY DIFFERENT PROFESSIONAL BACKGROUNDS.

By Mika Lasogga, Trainee

On Tuesday, the 28th of February, all participants arrived at the Hamburg office. Even though some of them had a trip of up to 17-hours, they were all motivated and curious about what they would experience. It started with a small introduction by Martin and the setting of ground rules which should apply to all participants: No mobile phones

outside the breaks, no languages other than English during the exercises, no consideration of ranks inside the groups and fair play at all times was the setup for the three days. Subsequently the participants were asked to form two equal groups which, from that moment on, would be a consistent team that would go through several exercises.



It was the first crew training and event in Hamburg since COVID and was therefore joyfully anticipated.







With each exercise, the groups had to select a new leader so eventually everyone was in charge and led the group through the process once. After the setting was clear and everyone introduced themselves to each other, the first exercise was about to start. In many of the exercises, the group had to come up with ideas to handcraft something with given materials within a scope of regulations and time limit. Exercises such as building a bridge connecting two tables with merely scotch tape and paper that is not allowed to sink below the table's surface sound easy but appeared not to be. At least not until the group had developed a certain group dynamic that made the participants within their team liaise instead of doing their own thing. This was especially important because even exercises which seem to be like plain sailing can be tough to manage when the team does not work together properly and consequently wastes a lot of time and resources. But not only the exercises themselves were challenging, it was also the structured and well-thought-out feedback with the SAID model (Situation, Action, Implication, Development) that had to be carried out. At the end of day one and five exercises later, the whole group

was tired but also hungry. Everyone was invited, together with some of the wives and children, to a traditional German dinner. This was at the Blockbräu restaurant at the Landungsbrücken, the heart of Hamburg. The crewing department and the participants were not alone: WASM Fleet Manager Lucian Stavarache accompanied them to have an easygoing evening with schnitzel, beer, and a good mood.

The next two days were filled with many funny exercises such as building huge cranes out of bamboo sticks (so huge that they needed to go outside) or building a life-size marble track.

 \triangleright

Also, more importantly, they had been introduced to the "Path of Performance" toolbox. Every participant received a small card for support, which was intended to help them to get their group to work more precisely and be more efficient.

During all the breaks on these three days, it was possible for the Fleet and Vessel Managers to have a chat with their seagoing colleagues. It was a great opportunity to meet in person since it has been difficult in recent years to arrange meetings between shore and offshore colleagues unless absolutely necessary. So, the participants and their trainer were even more pleased by the spontane-

ous visit of the WASM management and a few MPCC managers.

With the last day on the 2nd of March, the training finished with many great impressions and experiences. Over the three days, there was a progression in the soft skills of leadership, teamwork, and feedback notable. In the evening of the last day, they were put to a final test – but this time in an even more fun environment, a kitchen. So, when Martin closed his training session, the whole group went on a walk through Ottensen to meet at a restaurant, which now serves as a workshop for cooking courses. That was the perfect chance to implement the new teamwork skills, but this time with great food afterwards instead of discussing feedback methods. So, together with Susanne Petkovic, Katharina Bals, Irene Samonte-Padilla and Mika Lasogga, the seafarers put together a delicious three-course meal.



In was a nice get-together, and the group was able to spend some quality time with nice chats, decent food and drinks before the colleagues would later return to their vessels to cross the oceans again.



DEI INNOVATION CHALLENGE

"A DIVERSE MIX OF VOICES LEADS TO BETTER DISCUSSIONS, DECISIONS, AND OUTCOMES FOR EVERYONE." (SUNDAR PICHAI, CEO OF GOOGLE LLC). IN THE CURRENT ENVIRONMENT, THE IMPORTANCE OF DIVERSITY, EQUITY, AND INCLUSION IS EVER INCREASING AND ASKING COMPANIES TO UNLOCK POTENTIAL AND EXPLORE NEW DIRECTIONS.

By Sophie Simov, Business Application | Process Manager & Marius Dietrichson, CFO

In Q3 of 2022, the maritime industry bore witness to an important and innovative event – the DEI Innovation Challenge – which sought to foster diversity, equity, and inclusion on a global scale.

The challenge was launched by six industry leaders, including the Wilhelmsen Group, and was open to both individuals and teams for submitting ideas. The challenge was accepted by many, and the challenge received more than 80 unique ideas for consideration. The shortlisted concepts were then invited to participate in a 72-hour hackathon, culminating in a finals event in the style of a Dragon's Den.

Amongst the many impressive participants were Marius Dietrichson and Sophie Simov, representing Wilhelmsen Ahrenkiel Ship Management, who joined forces with the Thome Group to present their visionary idea, "Colibri Maritime X".



This highly innovative platform for competence and knowledge sharing was crafted with the intention of breaking down industry silos and enabling cross-generational exchange.

By utilising a matching algorithm, the platform would ensure that the most appropriate mindset was selected for the given project, thereby preventing unconscious bias based on factors such as age, gender, background, and experience. The team's contribution led to them being selected as one of the two winning teams, granting them the opportunity to enter the proof-of-concept stage. Here,

with industry feedback in hand and the goal of refining their service offering in mind, the team engaged in open and honest discussions with HR professionals. The result was a highly refined pitch deck, a sharper value proposition canvas, and several iterations with relevant user groups that drew highly positive feedback and generated widespread curiosity.

Too far? No, but the team would have needed considerably more time to dive deep into the concept and complete the next steps. This is not possible to deliver at this stage this time while ensuring successful daily business as a priority. Following the learn fast, fail fast approach, the team stopped the project. Who knows, maybe another day we will devise new angles and continue the endeavour.



TAKING OVER A VESSEL IS
ALWAYS AN EXCITING TIME.
TAKING OVER SEVERAL
VESSELS ALMOST IN A ROW
IS EVEN MORE EXCITING, BUT
HONESTLY CHALLENGING
AS WELL. ESPECIALLY, WHEN
A NEW TYPE OF VESSEL IS
COMING INTO MANAGEMENT.

By Danylo Myachyn, DPA/CSO

The year 2023 started with a task to take over four container vessels, one of which was a Ro-Ro container. Since a new type of vessel was planned, an additional office audit for the Document of Compliance was successfully completed in December 2022.

Since usually vessels planned for takeover are under a time charter, it is important to perform the change of management within the relatively short time given during the regular stay of the vessel in port with ideally no off-hire time. In order to be able to do so, preparations for the change of man-

agement are usually started far in advance and result in the close cooperation of different departments and involve numerous colleagues working closely together.



We are glad to welcome those vessels as well as their crew and vessel manager to our "WASM family".







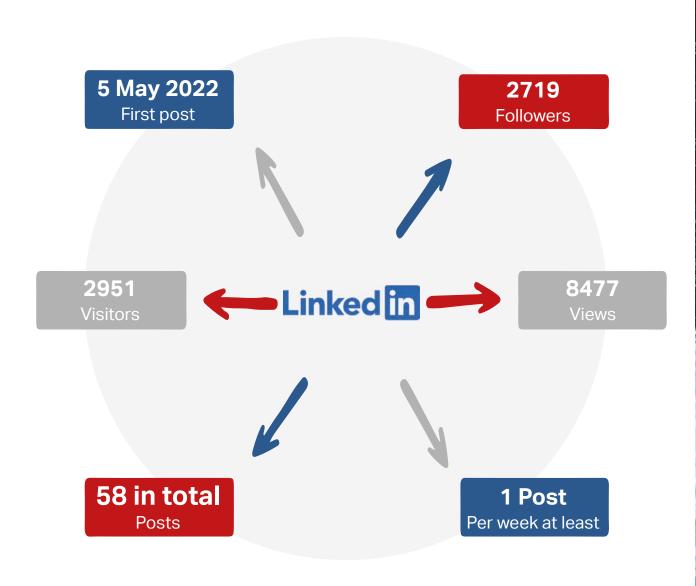
The very special fact about this takeover is that the crew, who served a really long time on board of this vessels, as well as responsible vessel manager (technical superintendent) who spent a lot of efforts in the past too – remain unchanged.

This is of course a significant benefit for the future and proper management of those vessels. The vessels mentioned above are pure liners engaged in a tight rotation schedule. M.V. SEABOARD SUN, for example, is trading purely between Jamaica and the Cayman Islands. A lack of shore cranes on this rotation makes the Ro-Ro vessel really unique and irreplaceable by a conventional container vessel. All of the three remaining vessels also have their own good history.

Upon completion of the change of management audits in the middle of January, WASM warmly welcomed M.V. SEABOARD SUN, SEABOARD ATLANTIC, SEABOARD EXPLORER and SEABOARD PATRIOT.

WASM ON LINKEDIN: HIGHLIGHTS OF 1 YEAR

THANKS TO ALL WHO SUPPORT US PROACTIVELY WITH CONTENT AND PICTURES. PLEASE KEEP IT COMING! PLEASE CONTACT MIA-KAARINA FEISTNER OR HANNEKE DE VRIEND IF YOU HAVE SOMETHING TO SHARE.



THANK YOU...

Over the past few months, our editorial team has coordinated the completion of the Telegraph reliably and with great commitment - topics were defined, authors recruited and supported, and articles written by ourselves. This requires a lot of commitment, because the Telegraph is not written by official journalists and authors, but lives through the dedication of our colleagues.

By Mia-Kaarina Feistner, Management Assistant



We would like to thank all involved very much for their efforts and the invested time!



IMPRESSUM

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EVS-Translations GmbH

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