

FURETANK SUSTAINABILITY REPORT 2022



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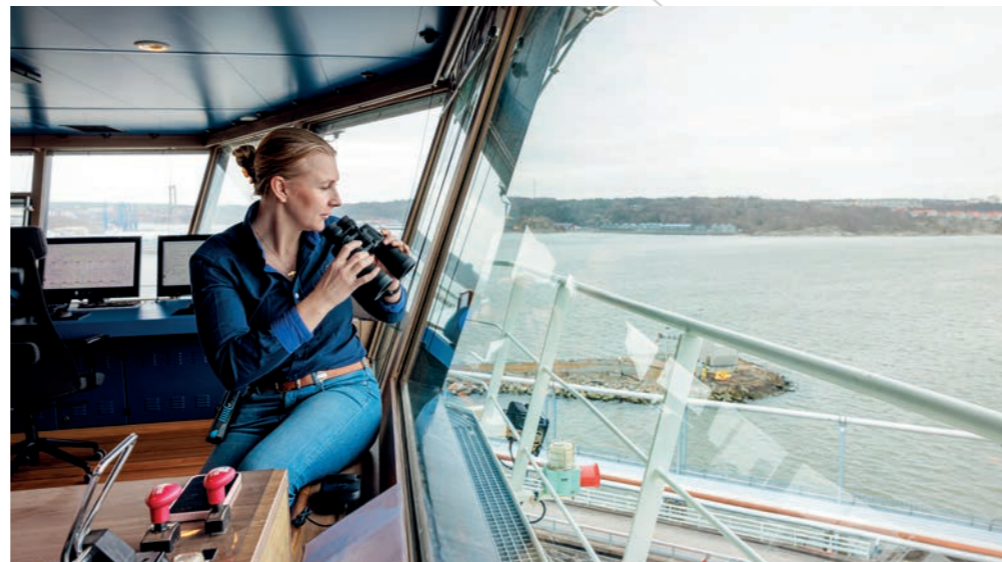
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2022 KEY MOMENTS

Furetank and partners ordered nine new intermediate tankers during the year, extending the VINGA series to 17 ships.

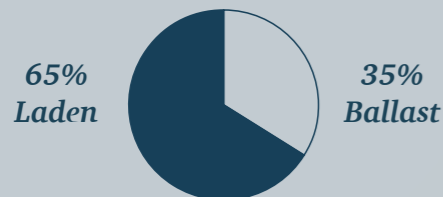


Furetank became the first shipping company to receive a green credit guarantee by the Swedish Export Credit Agency, demonstrating our climate-efficient tanker technology.



170 IMO delegates boarded FURE VINGA in central London for an [event](#).

FURE VALÖ performed a [pilot test](#) running on a new, partly waste-based Equinor fuel blend containing used cooking oil.



The 17 goals defined in the UN Sustainable Development Agenda lay out the roadmap for global communities, politics and industry to reach a sustainable future. All parties must make their contribution. The participation of businesses is key since they cause a considerable share of climate emissions, but also have the resources and ability to develop new, sustainable solutions.

We at Furetank are working hard to fulfill our part of this worldwide responsibility. On every page presenting a sustainability theme in this report, we have inserted the relevant goal or sub-target that our efforts correspond to.



Furetank and Algoma Central Corporation founded the joint venture FureBear with a sustainability focus, together funding eight of the tankers ordered.

No 1.

FURE VINGA received the first ISCC certified bio-LNG delivery ever made to the Port of Amsterdam



Our very low ballast ratio for the year saved CO₂ emissions as we optimized transports.

A historical year for Furetank of climate-efficient investments

2022 was a year of historically unmatched investments for Furetank. We extended the climate-optimized VINGA vessel series with no less than nine new vessel orders placed together with partners. One was ordered by Erik Thun AB and the remaining eight through the 50/50 joint venture FureBear, co-owned by Furetank and our Canadian business partner Algoma Central Corporation. Joining forces with a company across the Atlantic, sharing our values and belief in the future, is, simply put, amazing.

Since the first VINGA sister entered the product tanker market in 2018, replacing older tonnage, many environmental benefits have followed. First of all the emphasis on energy efficiency in the VINGA design means that our ships use significantly less fuel than their conventionally designed equivalents. The most climate-friendly energy is the one never used.

Second, the VINGA dual-fuel engines running primarily on LNG/LBG reduce emissions. The more commonly available LNG takes us a step on the way, emitting less than other fuels available on today's market. As we transition over to bio-based LBG, we approach truly fossil free operations.

Third, through our business model in the Gothia Tanker Alliance, thanks to a larger fleet we can optimize trading patterns and reduce the time in ballast by combining shipments from different customers in several directions. This offers financial as well as environmental benefits.

Overarching these measures is Furetank's quality and safety work as well our treasured and engaged personnel, all ensuring that we

can offer our customers excellent service and sustainable transports.

For us as well as all other parts of society, the year of 2022 was overclouded by the Russian war in i Ukraine. It is equally unjust, incomprehensible and tragic. Furetank stopped trading to Russia and has declined to transport cargo of Russian origin since February 24th 2022. We dedicated part of our yearly charitable donations to projects supporting the Ukrainian people. We wish for this war to end.

Concluding the year of 2022, our proudest moment was welcoming 170 IMO delegates on board Fure Vinga in London in June. Showing all of our emission-saving solutions to IMO Secretary-General Kitack Lim in person, was a grand moment in Furetank's history.

Looking ahead, a number of upcoming international regulations will support climate investments as the profitable path forward, e.g. the inclusion of maritime transports in the EU ETS system and IMO's CII regulations. We believe in green shipping. We believe that everyone can contribute to making it a reality, through partnerships and future-friendly investments.



Lars Höglund
Managing Director



VINGA vessel series bringing Furetank to 2050 climate goal – today

A cornerstone of Furetank’s business model is to offer our market the best possible means of transport for climate and environment. We make major investments to meet – and exceed – environmental goals set by the IMO. The two latest newbuildings, FURE VINGA and FURE VITEN, are best in class globally in meeting the climate goals for shipping. This means that Furetank’s VINGA vessel series already meets the emission targets for 2050

During 2022, thanks to Furetank’s joint venture with Algoma Central Corporation and one new order from Erik Thun AB, nine further vessels in the VINGA series were ordered from the China Merchants Jinling Shipyard in Yangzhou, taking the series to 17 vessels in total. Since we will be operating the vessels we build today for the coming 20 years, we have made significant investments in order to find the best possible technology that we can adopt today.

All systems optimized

The vessels have been designed by Furetank and FKAB Marine Design in collaboration with Wärtsilä, with the aim of reducing fuel consumption as far as possible. Furetank has

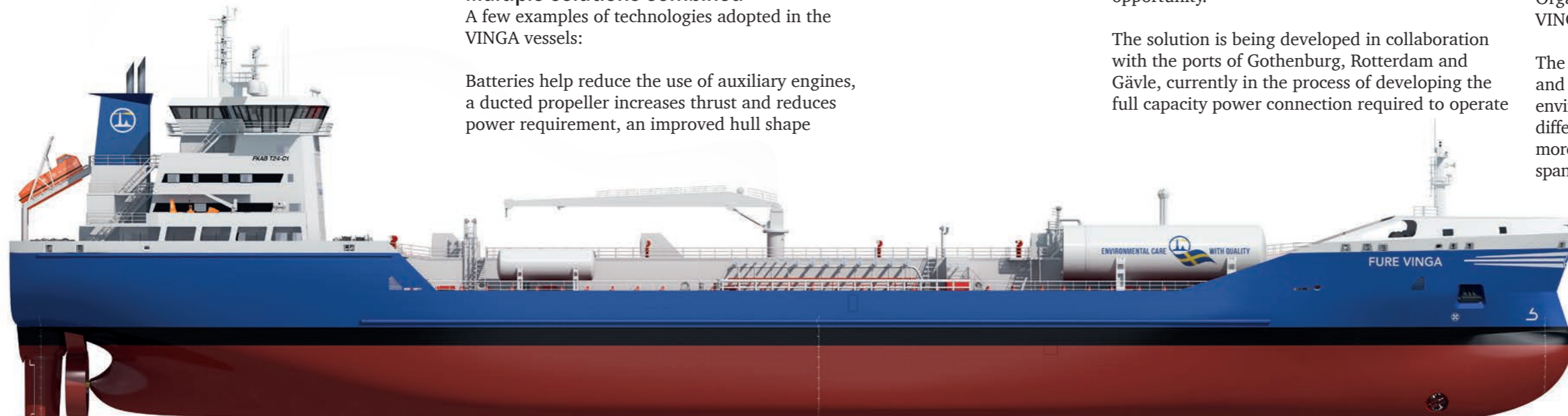
developed vessels since the 80’s and used our experience to optimize every detail. Every single system has been improved into a unique combination of interacting, energy-saving technical solutions. Throughout the design and construction process, energy efficiency has been improved.

The UN International Maritime Organization IMO regulates emissions for new vessels through the EEDI energy efficiency design index, where a lower value means less emissions. Today, the requirement for intermediate tankers is to reach below 9.37 points. The latest newbuildings FURE VITEN and FURE VINGA received values as low as 4.65 and 4.64 points: the best results achieved in the size segment so far.

Multiple solutions combined

A few examples of technologies adopted in the VINGA vessels:

Batteries help reduce the use of auxiliary engines, a ducted propeller increases thrust and reduces power requirement, an improved hull shape



9.4 - By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes.



13 - Take urgent action to combat climate change and its impacts.

minimizes drag, and the main engine and shaft generator use variable frequency to increase propeller efficiency and reduce fuel consumption.

The dual-fuel vessels are operated with LNG, liquefied natural gas, which is replaced step by step by LBG, liquefied biogas. Gas propulsion provides major climate, environmental and health benefits compared to oil and presents dramatic emission reductions (see p. 14-15).

For each new vessel being built, we improve systems further. During 2022 for example, we worked on optimizing the cruise control system in order to make it more adaptive and thus reduce fuel consumption in shifting weather conditions.

First in Europe with full shore power

FURE VITEN and FURE VINGA are the very first tankers in Europe that are fully equipped to operate the energy-demanding cargo pumps with 6.6 kV high voltage shore power. This will reduce emissions even further as soon as ports offer the opportunity.

The solution is being developed in collaboration with the ports of Gothenburg, Rotterdam and Gävle, currently in the process of developing the full capacity power connection required to operate

”Climate change is a reality and we believe that politicians mean what they say. Thus, if we are to survive as a shipping company in the future, we must do our absolute best to reduce our climate and environmental impact. The VINGA vessel series is our most comprehensive effort so far.”

Lars Höglund
CEO

the pumps. An important effort, as emissions in port can account for up to 20% of the total emissions from a tanker, in an environment that is often even more sensitive to pollution and noise than at sea.

Reaching UN target for 2050

With the delivery of FURE VITEN, the average carbon dioxide emissions from Furetank’s intermediate fleet have been decreased by 50% compared to 2008. Already today the vessel series fulfills its part of the IMO’s total emission target for the world fleet: to halve emissions up to year 2050. The vessels also received very good ratings in the ESI and CSI index.

The Environmental Ship Index (ESI) identifies vessels that perform better in reducing air emissions than required by the current emission standards of the International Maritime Organization (IMO). It grades from 1-100 and the VINGA vessels span from 85 to 97.

The Clean Shipping Index (CSI) is an independent and holistic labelling system of vessels’ environmental performance; a practical tool for differentiating port- and fairway fees or choosing more sustainable shipping alternatives. The scale spans from 1-5 and all VINGA vessels all received a 5.

[WATCH A VIDEO IN YOUR BROWSER](#)

CARBON EMISSION REDUCTION IN NUMBERS

Shipping is the most energy efficient transportation mode available, carrying large cargoes across water at a limited pace. Still there is a lot to be done in order to lower CO2 emissions from our industry.

The carbon emissions from shipping are a direct result of vessel energy consumption. The most important measures to reduce our climate footprint are:

- Designing, building and equipping energy efficient vessels (see p. 6-7)
- Ensuring efficient operations: vessel speed management, optimized use of on-board equipment
- Choice of fuel (see p. 14-15)
- Optimizing trade to reduce time in ballast (see p. 16-17)

Development during 2022

This diagram shows the emissions of Furetank's entire fleet for each year, in relation to the amount of vessels and days they are in our ownership. Naturally, to a large extent, emissions covary with the size of our fleet.

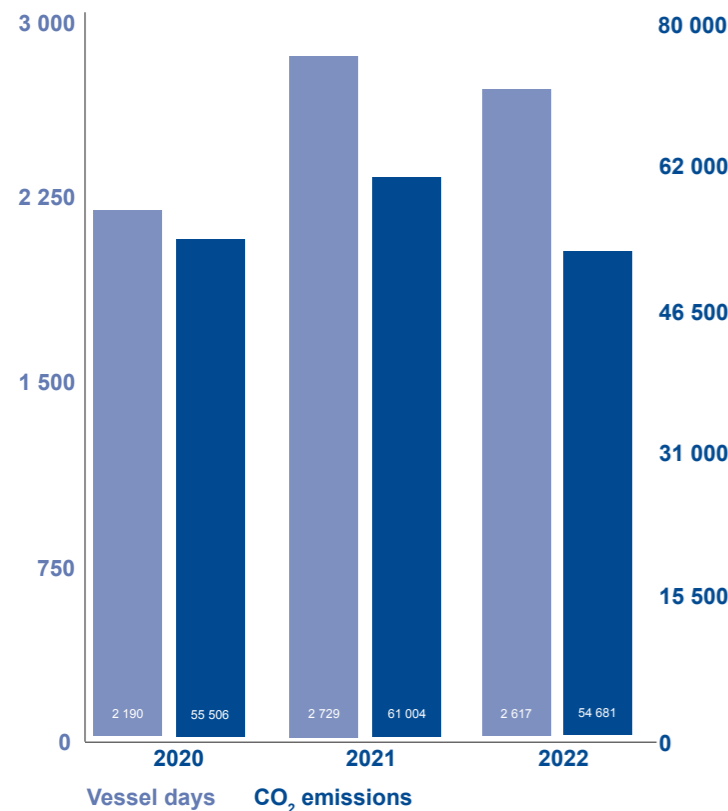
During 2022, the number of vessel days decreased since we sold three older vessels during the year: FURE FERDER, FURE FLADEN and FUREVIK.

As a result, the average carbon dioxide emissions of our fleet were lowered, since our newer vessels are climate-optimized using all means listed above.

A factor hampering the effect of our climate progress during 2022 was the European energy crisis and fear of a gas shortage during winter, following the Russian invasion of Ukraine. This forced us to limit the usage of LNG to run the vessels.

Since the VINGA series dual-fuel engines can switch seamlessly between fuels, we limited the use of gas to passages in densely populated areas and time in port, where the benefits of running on gas is the greatest to health and environment thanks to lower emissions of SOx, NOx and particles.

Fleet emissions in relation to vessel days



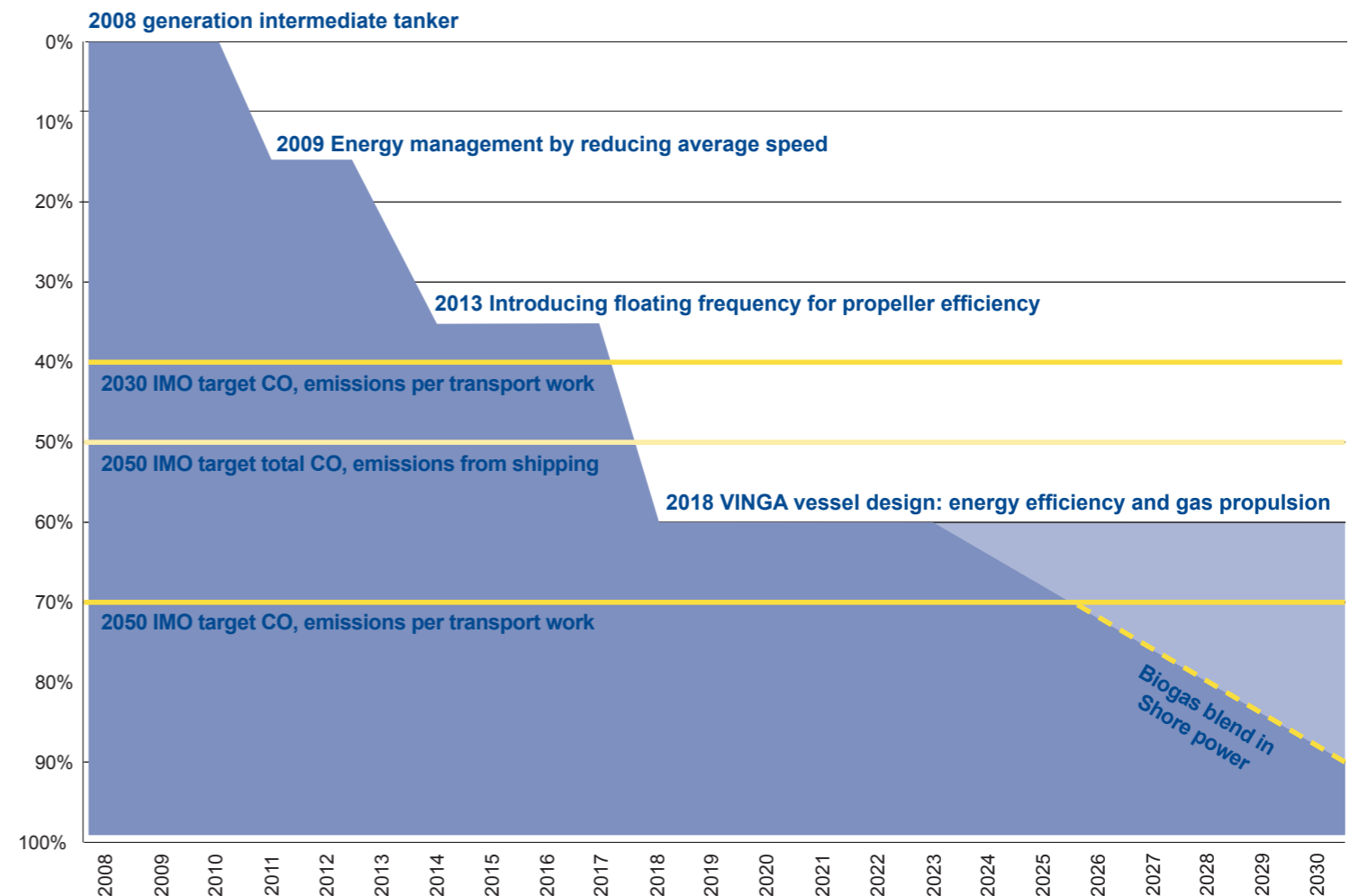
Development going forward

This staircase-resembling diagram shows how carbon emissions from an intermediate tanker are reduced as a result of measures taken by Furetank from the year 2008 onwards.

Going forward, moving over to LBG and shore power will make it possible to reduce CO2 emissions all the way to zero. However, this depends on sufficient supply of LBG in larger quantities, as well as ports offering high-voltage shore power connection.

Furetank's improvement steps: CO₂ emissions from an intermediate tanker

(grams per cargo-carrying capacity and nautical mile)



IMO DELEGATES VISITED FURE VINGA IN LONDON

Spectacularly moored on the Thames in downtown London, FURE VINGA opened up to 500 invited visitors as the first intermediate tanker in the world which will reach UN 2050 climate targets for shipping. 170 IMO delegates, meeting in London to advance global restrictions of greenhouse gas emissions, came onboard to see how Furetank has turned their targets into practice.

Furetank and the Government of Sweden invited all international delegations attending the 78th meeting of the UN marine environment protection committee (MEPC), to a vessel demonstration and guided tour along with shipping professionals. [The MEPC 78 meeting](#) focused on tackling climate change by cutting greenhouse gas emissions from shipping, which makes this study visit highly relevant. Three years earlier, Furetank was invited to the committee to tell about our vessels, reducing environmental emissions through innovative design. At the event the delegates got to experience one of the vessels first-hand. It is amazing to see how people react, they didn't think it was possible to carry this through. With this event we want to convince decision makers that it is possible to introduce tougher requirements to reduce emissions: the industry will

solve it. Furetank is a family-owned company. We invested what we could to make a positive impact on the future", said Lars Höglund, CEO of Furetank.

IMO: "Quiet, clean and green"

Already today the VINGA vessel series fulfills its part of the IMO's total emission target for the world fleet: to halve greenhouse gas emissions up to year 2050.

"This ship is very quiet, very clean and very green: it represents the image we want for the entire industry. This is a very tangible result of the progress and regulations we made at the



IMO. When you visit and explore a ship like this, you realize that the transition is possible and not something for the future, it's the present. It demonstrates that the private sector can support and accelerate greener shipping", said Arsenio Dominguez, Director of the IMO Marine Environment Division, after taking the guided tour around FURE VINGA.

2045, Sweden is to have zero net emissions of greenhouse gases. Transforming the transport sector is key.

"It is wonderful to be here to help showcase Swedish solutions for the green transition and especially in shipping. I am deeply impressed by the enthusiasm that I feel here, seeing these entrepreneurs turning a vision into reality. It is completely aligned with Sweden's climate goals and that is why the government sees this as a fantastic example of what we can do."

Aligned with Sweden's climate goals

The Swedish ambassador in London, Mikaela Kumlin Granit, held a speech stating that by

These are some of our visitors at the event on board FURE VINGA. Click their names to see the filmed interview.



"Very quiet, very green, very clean: this is a tangible result of IMO progress and regulations."

[Arsenio Dominguez](#)
Marine environment director, IMO



"FURE VINGA is the leading cutting edge of new tanker technology: a figurehead and a pioneer."

[Richard Carter](#)
Director of Broking, Clarksons



"it's important to show that the industry wants to move forward and educate us regulators"

[Jeff Lantz](#)
Director of Regulations, U.S. Coast Guard



"Shipping is going through the biggest transformation since the shift from sail to steam."

[Simon Bennett](#)
International Chamber of Shipping



"It is wonderful to help showcase Swedish solutions for the green transition in shipping."

[Mikaela Kumlin Granit](#)
Swedish ambassador in London



"We want to convince decision makers they can toughen requirements to reduce emissions"

[Lars Höglund](#)
CEO, Furetank.



"Shipping needs to pull its part in the work against climate change."

[Heike Deggim](#)
Director IMO Safety Division



"This ship shows the industry that this can be done in a more sustainable way."

[Leo McParland](#)
Managing Director, Hamilton Shipping

As the first shipping company in Sweden, Furetank was granted a green credit guarantee by the Swedish Export Credit Agency for financing a VINGA vessel. The approval is pioneering for shipping, enabling vast investments in the green technology required to achieve European climate goals.

The guarantee applies to the pre-financing of Furetank's next product and chemical tanker. It covers 80 percent of the risk for the lender Tjörns Sparbank, and marks a milestone for Furetank and Swedish shipping.

This is the first time a green credit guarantee has been granted to the shipping industry and only the second time that the [Swedish Export Credit Agency](#) grants this guarantee overall. The possibility was introduced in the autumn of 2021 to enable critical investments in sustainable industry.

"For the world to succeed in the green transformation, it is vital that businesses like Furetank can finance their ambitious climate initiatives. We are very proud to have the opportunity to support Furetank's investment in this new vessel", said Anna-Karin Jatko, Director-General of the Swedish Export Credit Agency.

Contribution to EU environmental objectives

The green credit guarantee is granted based on the EU taxonomy, the assessment tool that will guide international capital towards green investments. In order to reach EU climate goals and realize the European Green Deal, capital needs to be directed towards a sustainable business sector. The agency motivated the approval saying that the ship is of "top-class environmental standard" thanks to LNG/LBG propulsion and an energy consumption already lower than the IMO objectives for 2050. They also took into account

Furetank's environmentally optimized transport patterns and ambition to eliminate carbon dioxide emissions from the vessels through biogas agreements.

Enables vast environmental investments
Furetank's CFO Pär Karlsson described the approval as a definitive breakthrough: a confirmation from the state that Furetank has chosen the right path in making the climate investments that Sweden, the EU and the world are calling for.

"This is a significant recognition that we believe our environmental efforts deserve. We have undertaken heavy investments of time, know-how and capital to develop the VINGA vessels this far. The guarantee enables us to continue investing in green technology that takes us closer to our goal of a fossil free fleet", says Pär Karlsson.

Progress for international shipping

The approval also meant progress for shipping as a whole, according to the [Swedish Shipowners' Association](#). They have engaged in the pursuit of giving shipping companies access to green credit guarantees according to Anders Hermansson, CEO of the association. "This is a very positive development for shipping, as a capital-demanding industry where the cost of climate investments is very high and difficult to earn back. It is a major step for the green transition of shipping globally, as Swedish shipping companies are world leaders in the environmental field. When our members invest in new green technology, it progresses not only the vessel in question but the entire industry".

First shipping company granted green credit guarantee

- An important step in the industry transformation



"This is a significant recognition that we believe our environmental efforts deserve. The guarantee enables us to continue investing in green technology that takes us closer to our goal of a fossil free fleet"

Pär Karlsson
CFO Furetank

LNG/LBG: choosing the fuel of the future

A major environmental improvement that comes with Furetank's VINGA vessel series is choosing LNG/LBG as a fuel. Replacing oil brings several benefits for environment, climate and human health.

The eight VINGA sisters are dual-fuel vessels running on LNG, liquefied natural gas, and LBG, liquefied biogas when possible. There were many factors to consider when choosing the fuel for medium-sized tankers capable of managing 30 days at sea without bunkering. Furetank came to the conclusion that gas propulsion was the best alternative for the lifespan of 20 years for vessels in the trade, in compliance with oil major requirements.

"We can't sit around and wait for future technologies to turn up while the climate is warming up, we must choose the best fuel available here and now. In 15 years we

might build vessels running on ammonia or hydrogen, but today there are only two feasible choices: LNG/LBG or oil. The gas option brings many benefits", says CEO Lars Höglund.

Benefits gas vs. oil

Even if natural gas of fossil origin is the most widely offered alternative for the moment, it paves the way for a seamless transition to renewable LBG made from organic waste. The two fuels, both consisting of methane, suit the same engines and supply infrastructure. The necessary logistic facilities for bunkering are presently coming into place around the world.

These external factors are backed up by research showing how even the first step of swapping oil for LNG brings great gains. A report from the Swedish Environmental Institute IVL, calculated that Furetank's fuel change drastically reduced harmful emissions.

In combination with technical optimizations of the VINGA vessels, emissions of climate-

affecting carbon dioxide were reduced by 55% compared to older vessels and eutrophic nitrogen oxide (NO_x) by 86%. Emissions of acidifying sulfur oxide (SO_x) and hazardous particles (PM) were basically completely eliminated, supporting healthier humans and environment.

The methane slip

A much-debated dilemma though is the methane slip, meaning the release of small amounts of the powerful greenhouse gas methane when LNG or LBG is combusted in the engine.

"The methane slip is mostly a technical issue, which I believe will be solved during the coming years. We have already reduced it by half when designing our new engines together with Wärtsilä", says Lars Höglund. During 2022, Furetank has run tests together with Wärtsilä, using skip-firing technology and a [greenhouse gas reduction package](#) to further reduce the risk of methane slip and lower fuel consumption. The results have turned



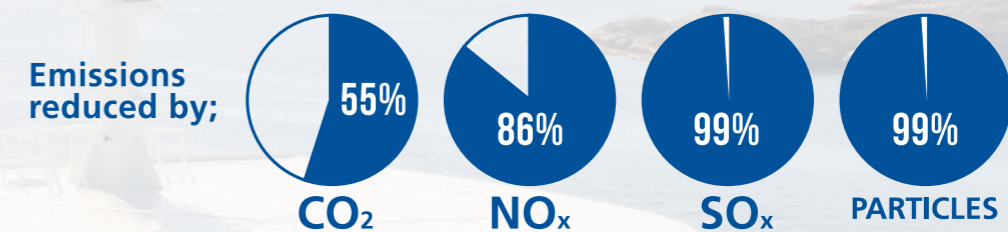
7.2 - By 2030, increase substantially the share of renewable energy in the global energy mix.

13 - Take urgent action to combat climate change and its impacts.

out so beneficial that all main engines of the nine VINGA vessels currently in order will be equipped with these systems.

LBG pilot projects underway

Furetank were and still are early adopters in the field. Already in 2015, FURE WEST was converted to dual-fuel propulsion. In 2018 FURE VINGA attracted media attention as the first vessel to ever bunker biogas in Sweden and in March 2021 she also became a forerunner bunkering entirely CO₂ compensated LNG in Spain. The next effort underway is to pioneer the way into mainly LBG-powered operations. Furetank is collaborating with suppliers Titan LNG, Gasum and other partners to secure a stable supply of LBG in the near future.



Optimizing trade brings great environmental benefits

Designing environmentally efficient vessels has a large impact on climate emissions. But another important factor which is often overlooked is how well we optimize trade. Furetank has made the choice to run our own, experienced and dedicated chartering department. This way we provide extraordinary service to customers, but also direct climate benefits as well as economic sustainability which enables significant environmental investments.

It is a part of Furetank's vision to be a full-scale shipping company, providing our customers with premium class service. Since 2012 we run our own chartering department based in Gothenburg, in order to optimize flexibility and efficiency.

"With several years in the market we have built up a strong brand and a good reputation in the European market for managing an efficient fleet. From our customers' point of view, Furetank Chartering should be a very reliable partner. The flexibility is a vital part. For example, we can swap vessels if we are

running late: there is always a backup solution to maintain a high service level" says David Andersson, general manager of Chartering.

Reducing time in ballast

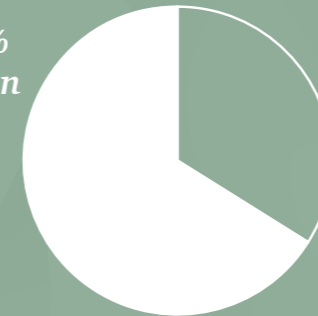
The chartering department operates vessels for Furetank as well as Erik Thun AB, Thun Tankers, Älvtank, Uni-Tankers, O. H. Meling, DSD Shipping, Besiktas Group and Transport Desgagnés Inc. The fleet included 21 intermediate tankers during 2022, mainly operating in northwestern Europe.

This critical mass of vessels means that we can always provide the right sized vessel in the right position at the requested time. By combining different voyages and cargoes we reduce time in ballast. This in turn brings great environmental benefits that very few talk about.

Combining volume contracts and spot volumes, Furetank Chartering is always looking to triangulate. As an example: if one vessel is sent into the Baltic Sea there is already a

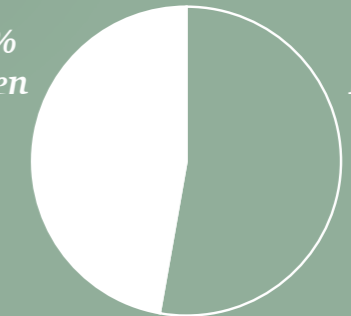
Furetank Chartering fleet

65% Laden 35% Ballast



Competing fleet 15-18000 DWT

47% Laden 53% Ballast



plan for a cargo going back to the UK or the continent, and the next cargo leaving from there etc. Plans are made two to three weeks ahead of time.

"Our large fleet of equivalent vessels makes this optimization possible, it brings down our ballast leg way below the average in our trade. The math is simple; carrying as much cargo as possible in relation to the sailed distance drastically reduces our emissions per transported ton of cargo", says David Andersson.

Statistics proving climate efficiency

Furetank's ballast versus laden ratio compared to benchmark is visualized in the two pie charts. This relation also brings economic efficiency; a prerequisite for the large investments Furetank continuously undertakes in innovation, optimization and climate-efficient technology when developing new vessels.

[WATCH A VIDEO IN YOUR BROWSER](#)



8.4 - Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation.



13 - Take urgent action to combat climate change and its impacts.



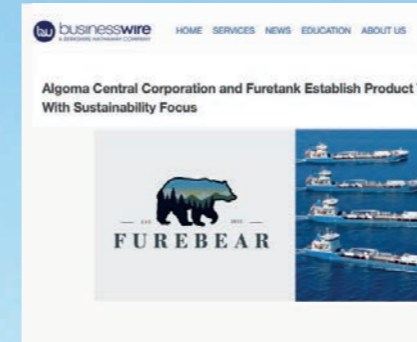
"A majority of the vessels in our size segment sail half of their lifespan empty. At Furetank Chartering, we spend our days optimizing transports and have now reached a ratio of ballast versus laden of somewhat more than a third. This is a very good number, resulting in a large reduction of our own climate emissions while also helping our customers to improve their business and environmental footprint."

David Andersson
General Manager of Chartering



FURETANK'S GREEN INITIATIVES IN THE PRESS DURING 2022

Our sustainability initiatives received widespread attention in international shipping media during the year. Here is a selection of news on Furetank's contributions to the green transition. Click each press-clipping to read the full article.



Business Wire, August 16



Dagens Industri, April 5



Lloyds's list, August 16



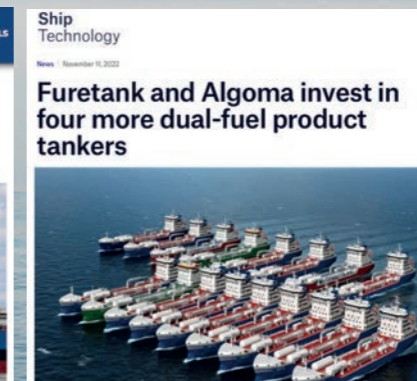
Inside Marine, January 28



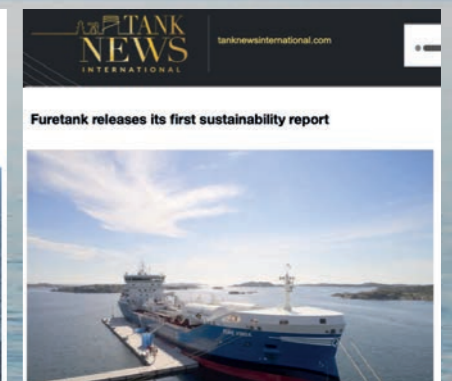
Sjömannen, June 9



Offshore energy, April 4,



Ship technology November 11



Tank news international, May 10



Sjöfartstidningen, June 9



Tradewinds, March 8



Tanker operator, September 23

HUMAN HEALTH

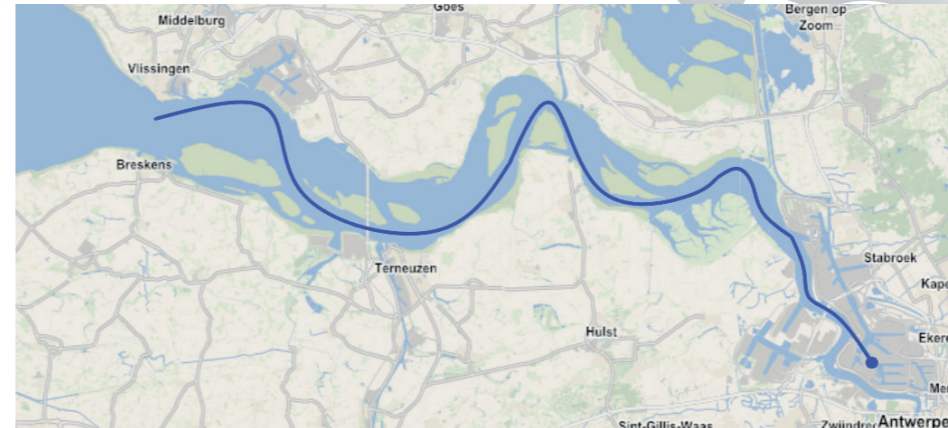
Ensuring healthy lives and promoting well-being at all ages is essential to sustainable development. The UN environment programme calls air pollution the "greatest global environmental threat to public health", causing around 7 million premature deaths every year.

Reducing harmful emissions was one of Furetank's main objectives when designing the VINGA vessel series.

Each new VINGA vessel being delivered presents a significant reduction of emissions from our fleet. These improvements can be

translated into substantial economic savings for societies along European fairways, according to the Swedish Environmental Institute, IVL.

Another important focus in promoting human health is noise reduction, which has demanded some unconventional measures of Furetank since official standards have not yet been developed.



3.9 - By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

14.1 - By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.

Breakthrough in reducing air pollution

Health-affecting emissions from sea transports mainly consist of NO_x, SO_x and hazardous particles. They cause serious human illnesses such as asthma, bronchitis, cardiovascular and pulmonary diseases. When determining which fuel should power our new vessels, our conclusion was that dual fuel LNG/LBG propulsion was the best choice currently available for environmental, climate and human health performance.

We also optimized every system on board for maximum energy efficiency and reduced fuel consumption. When the vessel design was complete, we asked IVL to perform an independent, environmental assessment of our measures, based on EU guidelines and resulting in a scientific report. The results were striking.

Emissions from the new vessels were compared in relation to earlier generations of ships in the same size segment, running on marine gas oil (MGO). NO_x emissions were reduced by 86% while SO_x and hazardous particle emissions were basically eliminated. Also, climate-affecting CO₂ emissions were

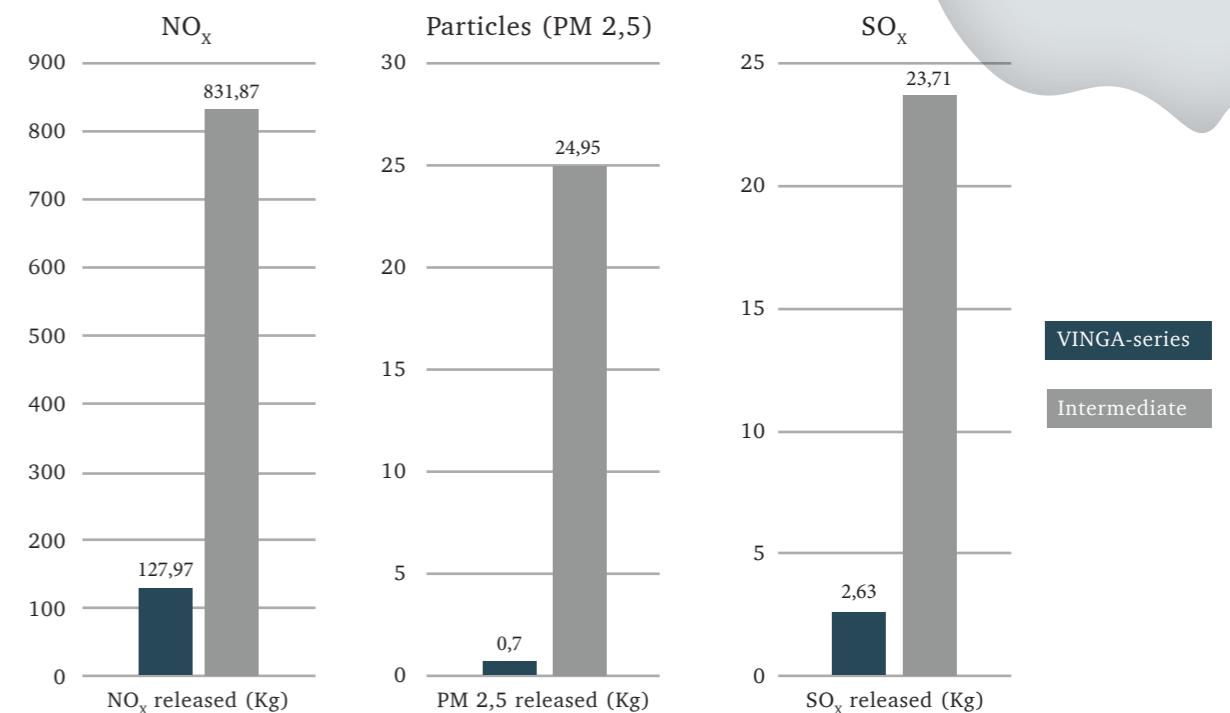
reduced by 55% when running on LNG, but as Furetank step by step moves over to renewable LBG, these reductions are heading downwards towards zero.

The health benefits of these reductions can also be translated into monetary savings for coastal societies. *External cost* is an established concept used by environmental economists to capture negative impacts of consumption and production. Environmental degradation and human health impacts from air pollution are typical examples of external costs.

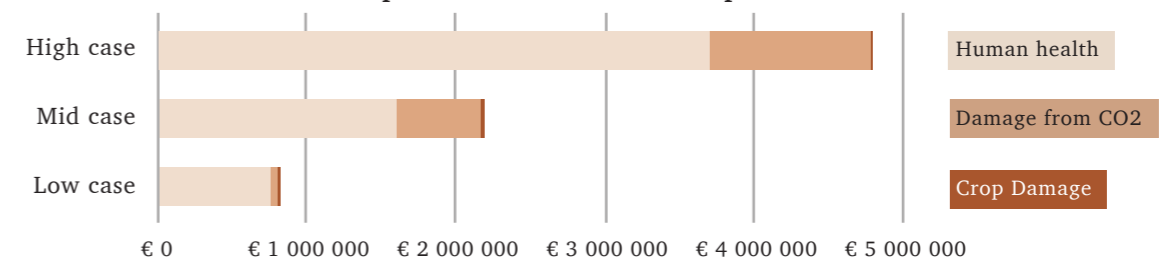
The report concluded that the economic value of reduced health impacts and crop losses stemming from Furetank's VINGA vessels compared to a conventional vessel is between 820 000 Euros and 4 800 000 Euros annually. Results are visualized in the bar chart.

To better understand the difference in harmful emissions in populated areas, where the most far-reaching impacts on human health take place, we also display a comparison of a discharge operation in Antwerp. The grey and blue staples clearly show the dramatic improvements.

FURE VINGA series total emissions in LNG or gasoil mode for passage in/out plus discharge operation in Antwerp.



Annual reduced health impacts for LNG ship when compared to conventional ship.



HUMAN HEALTH



Low noise cargo operations

According to the World Health Organization WHO, excessive noise seriously harms human health. It can disturb sleep, cause cardiovascular and psychophysiological effects, reduce performance, provoke annoyance responses and changes in social behaviour. When designing our new VINGA vessel series, we made noise reduction a priority.

For the benefit of Furetank's employees and other people spending their days in areas close to our operations, we made a number of adjustments in the vessel design. For example, the VINGA series is equipped with low noise electric cargo pumps, low noise compressors and VFD controlled engine room fans equipped with noise reducing silencers. Our crews have noticed a considerable improvement.

"The main difference shows in ports when we are discharging or maneuvering. The electric cargo pumps are much quieter than the conventional ones and engine vibrations are a lot less noticeable. People can rest better on board."

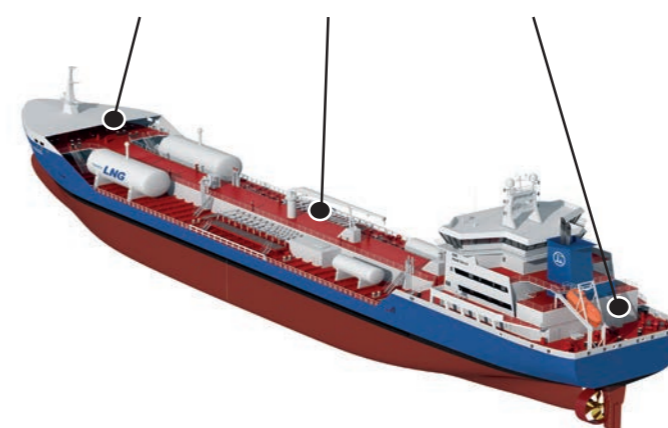
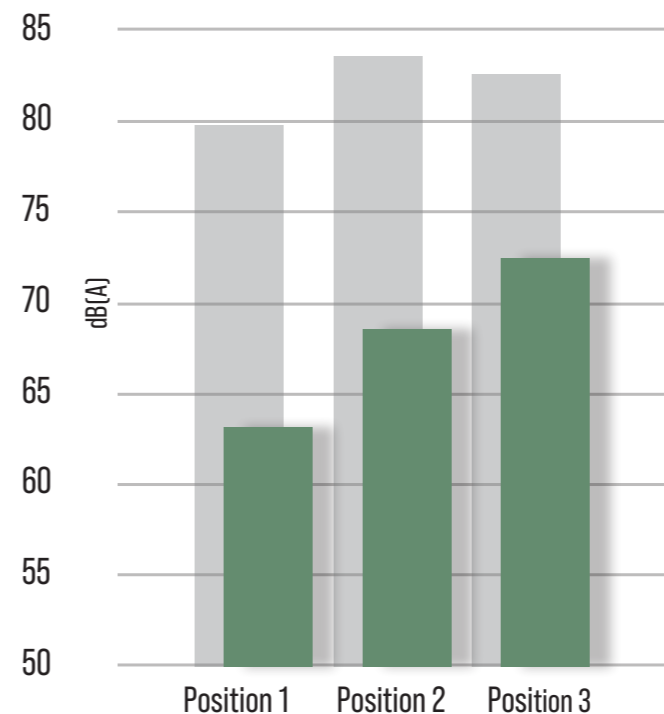
It is a big change and a clear difference from all previous vessels that I worked on" says chief officer Rico Charles Lim.

Furetank has measured the difference in sound levels, choosing a set of measuring points on deck as well as on the quay during discharging when noise levels peak. We calculated the sound levels as perceived by the human ear and compared the values to our previous generation of vessels. The result is quite remarkable. Since decibel is a logarithmic scale, what might look like a moderate reduction in figures (see bar chart) makes a big difference to the ear. The perceived noise was reduced by 73-85 per cent in the three measuring points.

Going forward, we are determined to ensure accurate measurements and find new ways to reduce noise pollution. Furetank has joined the [Silent@Sea](#) project led by IVL. It aims to quantify noise and vibrations levels in LNG/LBG dual-fuel vessels compared to conventional vessels. During 2023, researchers will initiate measurements. We are looking forward to sharing further progress with you in coming sustainability reports.

FURE VINGA SERIES

Noise from cargo operations.



Conventional vessels

FURE VINGA series



"We at Furetank are doing our utmost to shrink our footprint of air and noise pollution. We do it for the benefit of those who live close to marine fairways, ports and anchorage locations, but also for our employees on board. They live, work and breathe in this environment 24/7."

Jonatan Höglund
Newbuilding inspector



3.4 - By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.

OCEAN HEALTH

Healthy oceans are a prerequisite for a healthy planet and healthy human communities, as stated by the UN. Eighty per cent of all life on Earth is found in the ocean. It captures carbon dioxide, controls our climate and sustains us all, providing 50 per cent of our oxygen. Furetank's zero vision targets include causing no damage to the environment and safeguarding ocean health.

Furetank always strives to comply with all applicable customer, national and international regulations and even to exceed them. In order to fulfill these objectives, we actively take part in research and apply technological advancements. These are our current efforts.

Caring for the underwater environment

Many onboard and underwater systems are traditionally based on chemicals that are inevitably released to the oceans to some extent. Furetank has taken several innovative measures to leave harmful substances behind and find new solutions.

Biodegradable lubricants

Our Vinga vessels are designed to qualify for trade in sensitive areas, holding a VGP (Vessel General Permit) for all oil-to-water interfaces. This includes using only biodegradable, Environmentally Acceptable Lubricants (EAL) on all water interfaces. We have made the extra effort and investment to extend this practice to all deck machinery and equipment which could potentially cause leaks reaching the ocean, such as cranes, winches etc.

Airguard seal on propeller shaft

All vessels in the VINGA series have a ducted propeller. The propeller shaft is equipped with a Wärtsilä Airguard seal, an anti-pollution and environmentally compliant solution. It works with compressed air which is applied to the void space between the seal rings. It is set higher than the seawater pressure, resulting in a small amount of air forced out into the seawater. The void space is connected to an inboard drain collection system. Any seawater or lubricant oil that infiltrates the void space is automatically drained inboard, setting off an alarm and preventing lubricant oil leaking outboard or seawater entering the stern tube.

Aluminium anodes on hull

Most tankers trafficking European waters use sacrificial zinc anodes to protect the hull from corrosion. They purposely release zinc and

cadmium into the ocean. But the research society has raised warnings about harmful effects these heavy metals might have on aquatic organisms, potentially affecting cellular processes, growth and reproduction capacity. Furetank has replaced all zinc anodes with the less harmful alternative aluminium.

"Furetank has taken several innovative measures to leaving harmful substances behind and finding new solutions."

Ultrasonic anti-fouling system

Box coolers, employed to cool different on board systems, need an anti-fouling system which deters marine organisms from clinging on, growing and impairing the cooler functionality. The traditional choice is using copper rods, discharging copper and thereby creating a hostile environment for aquatic life. Furetank is trying out a new innovation; an ultrasonic anti-fouling system. It emits sounds that create vibrations on the cooler surfaces, preventing organisms from holding on. The result is yet to be evaluated, but we regard this choice as a good step towards reducing emissions to sea.

Graphene-based marine coating

Furetank is currently testing a new biocide-free, graphene-based hard foul release [hull and propeller coating](#). It creates an ultra-low friction surface meant to increase vessel performance. We have painted test patches on one of our vessels and results look promising.

Protecting sensitive ecosystems

How shipping companies handle ballast water affects an important aspect of ocean health: biodiversity. The water is often added in one marine environment to keep the vessel stable and safe, and later discharged in another environment due to changes in cargo. This may result in invasive species disturbing local ecosystems. Furetank is ahead of regulations in preventing this involuntary exchange. Underwater noise is another, less mentioned type of pollution that also needs to be addressed.

Chemical free ballast water treatment

The Ballast Water Management Convention (BWMC) obligates shipowners to install ballast water systems on all vessels by 2024. Furetank has already taken this measure across our entire fleet, but we have made even further investments.

Ballast water treatment systems traditionally use chemical additives to rid of unwanted hitch-hikers in ballast tanks. On our new vessels, Furetank has chosen the chemical-free PureBallast system from Alfa Laval, using filter and ultra violet light for biological disinfection. No disinfection bi-products (DBP) are generated, which could cause long-term environment impacts or harm operators during the process. The system has a very low energy consumption and thus saves fuel.

Joining research project for silent seas

Marine life of all dimensions, from plankton to whales, reacts to noise. Some effects are known

to us, like disturbed communications for species using sound, and extensive research has proven that noise is a health concern for the animal called human. Thus, increased levels of underwater noise from human activity is a problem to be taken seriously.

The VINGA design features a low-noise propeller surrounded by a duct to reduce underwater noise. Furetank has joined the Swedish Environmental Institute IVL research project Silent@Sea in order to advance the knowledge of the effects of underwater noise and explore how it can be reduced even further.



"Today the vulnerability of our oceans is obvious, with disturbed marine life and lifeless seabeds due to influence from land and shipping. Furetank has strived since the 80's to be at the technical forefront of environmentally friendly vessels. Basically all vessels we designed ourselves have been one step ahead of legislation."

Clas Gustafsson
Technical Manager



14.1 - By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.

15.8 - By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species.

SAFETY

"It is all about continuous improvement. To never lean back, instead prevent and be prepared: this is a zero vision mission. Our customers must be confident that we can perform tanker shipping safely. Staying safe justifies our entire existence, it is a basic condition for the entire business."

Donald Werner
HSQE Manager



Furetank Rederi AB operates a fleet of oil and chemical tankers transporting hazardous cargoes, which entails risks for employees, other people and surroundings if done incorrectly. This makes safety a core value in our industry. Furetank and all employees representing us have a responsibility towards health, safety and environment throughout the organization.

Furetank's Health, Safety, Quality, and Environmental (HSQE) policy focuses on providing a safe working environment (see *Employee Relations*), developing safety procedures and practices for ship operations to ensure the safety of vessels, ports and the wider community.

Complying with external regulations

Through the HSQE policy, Furetank declares that all tasks conducted by personnel ashore or on board will be effectively supervised in order to comply with the provisions of the national and international regulations e.g. [SOLAS](#), [MARPOL](#), [ISM](#) Code as well as requirements from our customers.

During 2022 we started preparing for the transition toward the new OCIMF inspection regime SIRE 2.0. This work will continue during 2023, ensuring that the organisation and fleet are well prepared when SIRE 2.0 enters into force.

Our compliance with these requirements is monitored by classification societies, ports and oil companies. Furetank has well-established routines for continuous follow-ups of incidents and benchmarking against other shipping companies within the industry.

Safety procedures

Furetank's safety management system comprises of company specific procedures, guidelines and checklists. It is based on the regulations and requirements mentioned above, serving as an efficient tool to safeguard

compliance with applicable requirements. We establish safety assessments and security plans specific to each vessel and shore facility: all to prevent incidents and accidents in any way possible. In order to maintain a constant focus on safe operations, a safety committee on board makes frequent rounds led by the safety officer. All findings are reported back into the system.

"Anybody can access regulations and guidelines. This is especially valuable for newly employed ratings who can read how every assignment should be done. It's really, really beneficial and helps us stay safe at work", says chief officer Rico Charles Lim.

To verify the effectiveness of our safety management system, Furetank has an extensive internal audit programme where we regularly visit our vessels.

Safety team and external forums

The Furetank HSQE/vetting team consists of co-workers with diverse backgrounds: master mariners, naval architects and marine engineers. Some with many years in safety



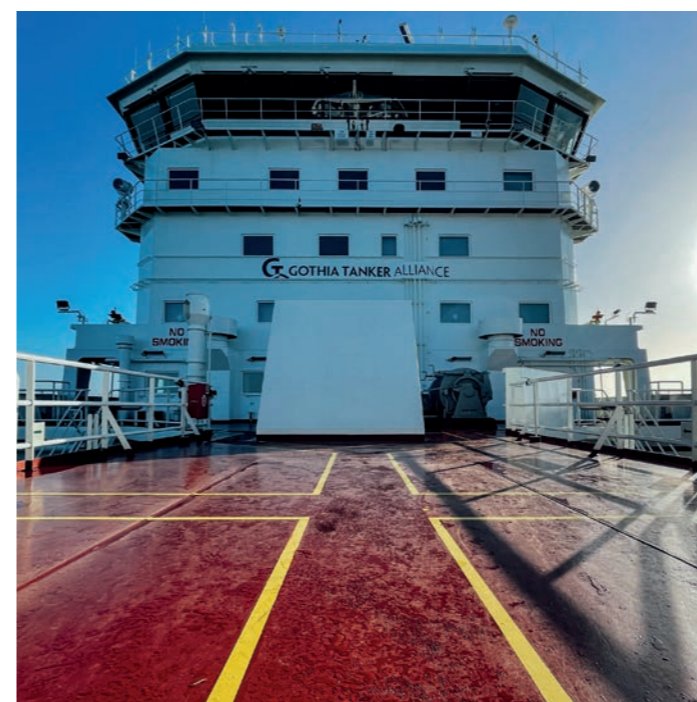
and security roles and others recently joining from our vessels. This gives us a great base of competence as well as the benefit of recent experiences at sea.

In order to enhance our safety work with knowledge and best practice from other parties, Furetank exchanges experiences in several forums such as the [Swedish Shipowners' Association](#) committees for environmental and safety matters. We also actively participate in the [Shell Maritime Partners in Safety](#) Programme.

Furetank is a member of the reference group for [ForeSea](#): an information system for accidents, near-accidents and deviations with the purpose of accident prevention and improving maritime safety. We share our own experiences to the database and learn from others who have encountered similar incidents. During 2022 we also participated in working groups within the Society for Gas as Marine Fuel SGMF (länk [www.sgmf.info](#)), focusing on technical aspects and safe bunkering of liquid methane.

Cyber security

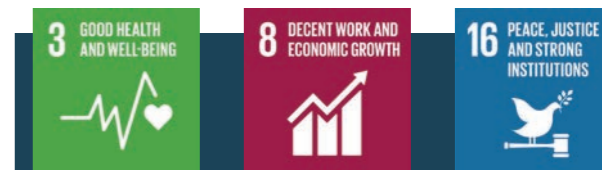
Furetank works actively in the field of cyber security. We continuously develop our policies, procedures and safeguards for the protection of our intellectual properties and personal data, ensuring the continuity of our shipping operations.



Anti-corruption

Most of Furetank's activities take place in Europe, but the maritime sector is an international business involving regions where the concepts of integrity and good business conduct may vary. Counteracting corruption is vital in advancing the UN 2030 Agenda, as corruption undermines economic and social development and hinders the opportunities of non-corrupt companies on equal terms.

Furetank complies with national and international legislation on anti-corruption and performs due diligence for risk awareness in relation to business partners. The company has a policy counteracting bribery in the shape of gifts or similar practices which may pose risks of corruptive behaviour



3.9 - By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

8.8 - Protect labour rights and promote safe and secure working environments for all workers.

16.5 - Substantially reduce corruption and bribery in all their forms.

Personal safety	2022	2021
Lost time injury frequency (LTIF) ¹	0,74	1,43
Total reportable case frequency (TRCF) ²	3,72	2,87

¹ The number of LTI's per 1 000 000 hours worked

² The number of TRC's per 1 000 000 hours worked

DIVERSITY AND EQUALITY

The 2030 Agenda for Sustainable Development promises to leave no one behind. According to UNDP, achieving the global goals requires a gender-balanced, diverse and inclusive workforce. The dignity of each individual must be respected to the utmost, free from any form of discrimination or abuse. For Furetank, our diverse crews are a strong asset which we value and care for in several respects.

Inclusion means ensuring equal opportunities for all, regardless of their background so that they can achieve their full potential in life.

This is especially important in a contained environment like ship life. At Furetank we want to offer a positive work and life situation for all employees, with mutual respect and understanding between colleagues.

Furetank works in accordance with national and international regulations for employment conditions and working environment. Our equal treatment policy sets the framework for how we are expected to treat each other within the company, both on board and ashore, as well as towards external contacts.

Gender balance an important focus in shipping

A balanced share of women and men in crews is an important factor for everyone's well-being on board. Furetank has actively strived to attract skilled female sailors for many years: an effort which has paid off in many respects.

Furetank applies skills-based recruitment, while at the same time working for an even distribution of women and men. Safeguarding gender balance and equality is especially important in a traditionally male-dominated trade.

For a shipping company, Furetank has a fair share of female crew members. Fourteen officers including four senior officers, as well as five ratings, are women. This benefits the welfare of the entire company.

"Gender-balanced crews bring a more pleasant atmosphere on the vessels. As in all industries, a diversified workplace in terms of gender and cultural background is a good thing. It helps us all grow as people and colleagues. If we are all similar we can only move in a singular direction. We want to shape a workplace with many perspectives represented, a round ball which can roll different ways and find new paths forward", says CEO Lars Höglund.

Pictured as a positive example

Lars Höglund was interviewed in a podcast by the Swedish Maritime Administration. The authority has observed Furetank's efforts to make women and men equally comfortable at sea and thereby attract more women to a traditionally mostly-male profession.

The administration representatives were guided around the engine room of one of Furetank's new vessels by Ailene Barrios, a Philippine crew member who joined the company as a student in 2008. She advanced all the way to her recent role as First Engineer. What they witnessed hearing from the female crew members was basically that they were treated just like anybody on board, in an inclusive and welcoming working environment.

Facilitating family life

Furetank works consciously on facilitating family life, giving both mothers and fathers the opportunity to take parental leave in a way that suits their families. This striving for flexibility benefits both staff members and the company. A good working situation makes employees stay for many years, which brings economic advantages.

In the Philippines we work with the [Net Ship Family Foundation](#), with the mission of recognizing the families of seafarers as part of the corporate family and assisting them in their needs and concerns. They are provided with economic, social and spiritual assistance in case of sickness, death or accidents. Families also get access to psycho-social counseling and help to maintain family bonds while at sea.

Zero tolerance for harassment and discrimination

It is a basic human right not to be discriminated or harassed. Furetank has zero tolerance against any type of discrimination or harassment.



Discrimination

Discrimination is when a person is treated unfavourably, a person's dignity is violated or when a person is being put in dependency to someone who is giving order. In discrimination the disfavoured treatment or the violation of a person's dignity is also related to one of the seven grounds of discrimination:

- Gender
- Ethnicity
- Religion or other belief
- Age
- Disability
- Sexual orientation
- Transgender identity or expression

Harassment

Harassment is behaviour that is unwelcome. It is the victim of harassment who decides what is unwelcome or offensive. We encourage all members of our staff experiencing discrimination or harassment to speak up and report all incidents, without having to worry about negative consequences. A person who has been subject to discrimination shall be offered help and support without unnecessary delay.

Suspected criminal activity is reported to the police authorities. Failure to comply with this policy will result in disciplinary actions which may result in termination of employment.



"In the personnel department, we aim to eliminate inequalities of all kinds. It's important for us to stay in close contact with employees and have them all feel our continual presence and support. We often visit the vessels to meet our sailors in person and talk about the importance of respecting and treating each other well. We feel that they are very engaged in maintaining a friendly atmosphere on board, and many of them tend to stay with us for a long time."

Yvonne Höglund
Personnel coordinator



5.1 - End all forms of discrimination against all women and girls everywhere.

5.5 - Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.

10.2 - By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.

10.3 - Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard.

EMPLOYEE RELATIONS



8.8 - Protect labour rights and promote safe and secure working environments for all workers.



The well-being and engagement of our co-workers is the basis of a successful business and continuous development. Safeguarding fair employment conditions and physical safety in the working environment is, naturally, a top priority. But Furetank also puts great effort into softer values like crews enjoying their spare time on board and being able to partake in important family events.

Furetank works in accordance with national and international regulations concerning employment conditions and working environment, more particularly the international Maritime Labor Convention (MLC) adopted by the International Labor Organization (ILO) and the Swedish Work Environment Act.

Safe working environment

Furetank has set an overall zero vision target, which includes no accident and no harm to people.

The company has a Working Environment Policy regulating working conditions both at sea and ashore. Furetank commits to providing safe and healthy working environment with safe systems for work. All seafarers regularly undergo medical examinations. A drug and alcohol policy is in place and all employees must adhere to it at all times.

All who are directly or indirectly working with hazardous materials shall be provided

with information and instructions about the materials and their potential hazards, as well as necessary protective clothing, equipment and instructions on how to use and maintain the equipment. All procedures and instructions on working environment are established and maintained in the Furetank Safety Management System.

Employee well-being

All employees receive the benefit of a healthcare insurance paid by the company, to ensure that they are helped swiftly when falling sick.

The addition of new VINGA vessels, nine more being ordered during 2022, has further improved the working environment offered to on-board personnel. Improvements have also been aimed at increased quality of life on board, such as a well-equipped gym, sauna and pleasant living quarters.

"The vessels are designed for a pleasant life situation on board, to enjoy our time also outside work hours. That effort makes a big difference, regardless of whether you are going to stay here for five weeks or six months. When you are away from home it makes you feel a bit better and helps bring the team together", says Sanna Tovar, 2nd officer at Furetank.

Healthy food and social activities are other important aspects of ship life, as well as challenges encouraging physical activity. The employee competition "Ready Steady Go" invites crew members to note every time they exercise, receiving a small award after a certain amount of sessions. The competition also takes place between vessels, and the winning crew together wins a contribution to the vessel leisure fund.

CHARITY DONATIONS

In addition to caring for our personnel and their families, Furetank wants to make a contribution to help people less fortunate in society. Therefore we engage in charitable causes.

During 2022 we donated 15 000 EUR in total to:

- The Savior Mission [Räddningsmissionen](#)
- The Gothenburg City Mission [Stadsmissionen](#)
- [The ERDA Foundation](#)
- The Ating Familia Foundation
- [The Bahay Aruga house of care](#)
- The Swedish Sea Rescue Society [Sjöräddningsällskapet](#)
- Charities supporting Ukraine



"Our main goal at Furetank is to make sure that our employees feel safe in all regards and have the tools needed to perform well. It is crucial that the on-board crew can reach colleagues in the land organization without delay, to discuss whatever issues might appear. For a good working environment we need to communicate with one another in a proper manner regardless of gender, nationality or age."

Sussi Löfgren
Personnel coordinator





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