



SOLVANG ASA

ESG REPORT 2025

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Letter from CEO Edvin Endresen

DEAR READER

I am pleased to present our ESG report for 2025. This year marks continued progress for the Solvang Group as we continue to execute our long-term strategy, strengthen our operational performance, and advance our sustainability ambitions.

A central milestone of 2025 has been the continued construction of our seven-vessel VLGC newbuilding program. Representing one of the largest investments in Solvang's history, this series is progressing according to plan and will significantly strengthen our presence within the VLGC segment. The 88,000 cbm Panamax vessels are built with the regulatory environment of the coming decades in mind, featuring advanced emission-reduction systems, exhaust cleaning systems, EGR for NOx reduction, and full structural readiness for onboard carbon capture. These vessels are truly designed for the standards of tomorrow.

Another important achievement this year has been the ongoing operation of the carbon capture pilot onboard Clipper Eris. Following the successful retrofit and departure from Singapore in early 2025, the vessel has completed multiple long-haul voyages with continuous CO2 capture. The pilot has provided valuable insights into energy demand, stability, and integration into everyday operations. These learnings are essential as we evaluate the next steps for scaling the technology. However, the broader challenge remains unchanged: without global, predictable regulation, and a meaningful cost of greenhouse gas emissions, neither CCS nor alternative fuels will achieve the adoption necessary for industry-wide impact.

The global environment in which we operate has become increasingly unpredictable. Between ongoing tariff-driven trade distortions and acts of war and heightened geopolitical tension, several key shipping corridors have been affected. While this adds risk and volatility, it also results in longer sailing distances, higher tonne-mile demand, and temporarily tighter vessel availability. Against this backdrop, our high contract coverage and

strong customer partnerships have provided important stability. We continue to focus on delivering safe, reliable and cost-effective operations, which are factors within our control, regardless of global developments.

A major strategic step this year has been the completion of the joint venture with GIP BlackRock, establishing **Solvang Gas Carriers**. This new growth platform now comprises **16 VLGCs**, positioning the joint venture as a significant player in the global LPG segment. The JV strengthens our financial flexibility, enhances our growth capacity, and creates a structure well suited for future opportunities within LPG, ammonia, ethane and CO2 transportation. We are pleased to see this long-planned partnership materialize, and we look forward to developing the platform together with our partners.

I would like to express my sincere gratitude to all our employees, at sea and ashore. Your professionalism and dedication truly define who we are. Your commitment ensures that Solvang remains a trusted partner in an increasingly complex world.

Looking ahead, Solvang stands well positioned—supported by strong customer relationships, a modern and future-ready fleet, and a clear strategic direction. We remain confident in the opportunities ahead and committed to delivering long-term value for all our stakeholders.

Edvin Endresen, CEO

Sustainable highlights 2025



OCCS technology proven

Solvang and Wärtsilä have demonstrated a consistent 70+ percent CO2 capture rate on gas carrier Clipper Eris' exhaust system. The OCCS solution for conventional heavy fuel oil (HFO) is a global industry-first, full-scale proof of concept, according to system manufacturer Wärtsilä.

OCCS – global breakthrough up next

The carbon capture system on board Clipper Eris has proven operational and technical success beyond expectations. Once terminals and downstream infrastructure are ready, global shipping faces a radical pathway to decarbonization, spearheaded by Solvang.

VLGC newbuildings – the new ECO LPG standard

Solvang builds seven Panamax VLGC gas carriers at Hyundai Heavy Industries, Korea. In addition to Panamax record capacity of 88,000 cbm, the newbuildings feature cutting edge ECO technology: OCCS-ready, hybrid exhaust gas cleaning systems, Solvang low-pressure EGR (NOx Tier III) – and more.

All eyes on efficiency

Solvang's Energy Efficiency Operational Indicator (EEOI) 2009-2025 shows a fleet reduction of 49%. The annual efficiency ratio (AER) 2009-2025 is down 37%. This means Solvang is well ahead of schedule to reach IMO's goal of 40% AER reduction by 2030.

Ammonia – new energy carrier at the door

In just a few years, the market for ammonia produced with captured carbon or low-emission energy sources is expected to grow significantly, especially for onshore applications. As a world-leading specialist in ammonia transport, Solvang prepares to advance in the growing ammonia market.

Impacts – risks – opportunities

Radical changes in emission regulations, radical growth in the ammonia industry, or growing risk of incidents, corruptions and disruptions in world trade – the world has become harder to plan and to manage. Those best prepared will gain advantages.

Scaling up the fleet and seafarer pool

In 2025, Solvang emerged stronger following a planned delay between sale of vessels and delivery of newbuild VLGCs. A display of flexibility from both sides has secured an even stronger partnership between employer and employees in Solvang at the end of the year.

Keeping up sustainability efforts

In addition to record-low AER scores in the fleet, Solvang has delivered a full range of environmental, social and governance measures to suit a massive sustainability work in 2025. The efforts have been documented and aligned with GRI, EU and UN sustainability frameworks in the ESG report.

Extensive research and development

Solvang's engagement with maritime research institutions and technology enterprises has paid off. Optimization of drivetrain, propeller and rudder, load and hull have produced the lowest AER in the history of Solvang – and more is to come.

Our Mission Statement

Solvang aims to be an industry-leading provider of LPG and petrochemical tonnage to our clients in the safest, cleanest and most cost-effective manner.

FROM THE PAST

<p>1936 - 1989</p> <p>Independent shipping and investment company.</p>	<p>1989 - 2004</p> <p>Inge Steensland buys 64% of the company's share capital. From 1992 the transformation from a shipping investment platform, towards a fully integrated shipping company starts.</p>	<p>2006</p> <p>A large-scale newbuild order placed in South Korea and Germany for 4 ethylene carriers 17,000 cbm, 3 LGCs and 2 Panamax VLGCs for delivery in 2007/2008. In total 9 vessels.</p>	<p>2006-2011</p> <p>Starting to transform the land organization from a small to a medium-size shipping company.</p> <p>Establishing our vision, values and main goals. Establishing KPIs and development of Solvang vessel performance monitoring system.</p>	<p>2011</p> <p>Opening "Make our Blue Logo Green" programme, setting targets for Solvang ECO LPG Carriers:</p> <ul style="list-style-type: none"> Fuel-efficient design Compliance with emission regulations. Energy efficiency well-to-wake. The question is not which fuel you use, but how you use it. Operational excellence by continuous improvement. 	<p>2011</p> <p>Ordering Clipper Quito and Clipper Posh, 84,000 cbm VLGCs with full-scale exhaust cleaning systems, delivery in 2013.</p>
	<p>Continuing fleet growth by buying second-hand vessels and taking delivery of 5 newbuilds 1998-2004.</p>	<p>2007/2008</p> <p>Received delivery of 10 newbuilds, 9 constructed and 1 VLGC resale ex-yard.</p>			<p>2013</p> <p>Delivery of the world's first ECO VLGC LPG Carrier, first award of the title ECO LPG carrier, by The Royal Institute of Naval Architects.</p>



TO THE FUTURE

<p>2050 - Clipper Future</p>	<p>2030</p>	<p>2025</p>	<p>2023-2024</p>	<p>2019</p>	<p>2015</p>
<p>Complete GHG accounts for the fleet in Scope 1 «well-to-wake». Minimal GHG outlets and pollution to air and water</p> <p>Large efficiency gains within transmission/propeller and hull. Large optimization gains in engine operation</p> <p>Material contribution to ammonia market.</p>	<p>Progressive GHG emission reductions, ref IMO/EU</p> <p>Full compliance with IMO's 40% efficiency ratio (CII) reduction target.</p> <p>OCCS expansion in the fleet</p>	<p>Clipper Explorer added to the fleet</p> <p>Joint venture with GIP, a part of BlackRock, to own 16 VLGCs</p> <p>Full operation of OCCS pilot</p> <p>Improved soot cleaning with WESP on 5 vessels</p> <p>37% AER reduction 2009-2025</p> <p>Solvang Latvia established</p> <p>Established site team in Korea (HHI)</p>	<p>Ordering 5+2 VLGC newbuilds</p> <p>Mewis ducts installed on 10 vessels.</p> <p>Eco bulb, propellers and drivetrain optimization on 4 vessels.</p> <p>WESP installed on 5 vessels</p> <p>Clipper Eris OCCS pilot awarded</p> <p>MNOK 78 from Norwegian Authorities</p> <p>Sold Clipper Helen and Clipper Star Bought Clipper Explorer</p>	<p>5 newbuilds, 4 ECO Ethylene, and 1 ECO Panamax VLGC. The greenest and most efficient oil-fuelled gas carrier in the world.</p> <p>Retrofitting 4 vessels with scrubbers.</p> <p>2021</p> <p>Launch of vessel-scale carbon capture project with Wärtsilä. The system captures CO₂ from main engine combustion before it passes through the exhaust outlets.</p>	<p>Delivery of 3 new ECO LGC (60,000) gas carriers, Bosphorus-Max.</p> <p>Retrofit of EGC on Clipper Harald - combination of scrubber and LP EGR for emission control (SO_x and NO_x).</p> <p>2017</p> <p>Delivery of 2 Panamax ECO LPG carriers.</p>

OUR FLEET

VLGCs in Solvang Gas Carriers JV

Name	Built	DWT	CBM
NB Hull 3508	2027	52,887	88,000
NB Hull 3507	2026	52,887	88,000
NB Hull 3463	2026	52,887	88,000
NB Hull 3462	2026	52,887	88,000
Clipper Galleon	2026	52,887	88,000
Clipper Galiot	2026	52,887	88,000
Clipper Guardian	2026	52,887	88,000
Clipper Wilma	2019	51,144	80,000
Clipper Explorer	2019	50,513	80,000
Clipper Viking*	2019	50,703	80,000
Clipper Voyager*	2019	54,406	84,000
Clipper Valiant*	2019	54,406	84,000
Clipper Vanguard	2017	50,891	78,800
Clipper Freeport	2017	50,891	78,800
Clipper Posh	2013	55,047	84,000
Clipper Quito	2013	55,047	84,000

LGCs

Name	Built	DWT	CBM
Clipper Venus	2015	42,543	60,000
Clipper Saturn	2015	42,543	60,000
Clipper Jupiter	2015	42,543	60,000
Clipper Mars	2008	43,544	60,200
Clipper Neptun	2008	43,508	60,200
Clipper Orion	2008	43,475	60,200
Clipper Sky	2004	44,617	59,300
Clipper Moon (sold)	2003	44,822	59,300

Ethylene/semie-ref carriers

Name	Built	DWT	CBM
Clipper Eris	2019	18,056	21,289
Clipper Eirene	2019	18,056	21,289
Clipper Enyo	2019	18,056	21,289
Clipper Eos	2019	18,056	21,289
Clipper Hermes	2008	18,884	17,100
Clipper Hermod	2008	18,967	17,100
Clipper Hebe (sold)	2007	18,800	17,100

* In operation from 2026

BUSINESS OVERVIEW

Solvang ASA holds a steady course towards the future. Our strength is reliable, high-quality deliveries. Our organization stands firmly on our core values of mutual respect, team spirit, and quality.

Vision: Industry leading provider of LPG and petrochemical tonnage.

Mission: To be an industry leading provider of LPG and petrochemical tonnage to our clients in the safest, cleanest and most cost-effective manner.

Values:

Mutual respect

Solvang's staff includes people of different backgrounds, geography, culture and qualifications. All across the organization, we celebrate diversity and respect each other for what we are.

Team Spirit

Every employee at Solvang works toward a common goal across fields and locations: Deliveries made safe, clean and cost-effective. Only team spirit is capable of making this happen.

Quality

All of Solvang's values converge in the notion of quality. From every single task and procedure to the launch of new VLGC ECO flagships off the berth - quality is the essence of everything we do.

Distribution of services

Solvang maintains an integrated shipping organization headquartered in Stavanger, supported by suppliers and customers.



GRI references

2-1 Organizational details: Norwegian public limited liability company (ASA) owned by corporate investors. Operations: Norway (HQ & fleet management), The Philippines (staffing), Latvia (staffing).

2-2 Entities included in sustainability reporting: Consolidation based on control, including cases below 50% ownership per 31.12.25: Solvang Maritime AS (100%), Clipper Shipping AS (100%), Solvang Gas Carriers JV, PR Clipper Mars II DA (50%), PR Clipper Neptun DA (60%), Solvang Latvia SIA (100%), JC.

GRI references

2-3 Reporting period, frequency, contact point: 1 Jan - 31 Dec 2025. Annual reporting. Contact: Strandkaien 36, 4005 Stavanger, Norway. Tel. +47 51 84 84 00.

2-4 Restatements of information: No restatements in 2025.

2-5 External assurance: No external assurance. 3rd party technical validation and/or scientific reviews.

Very Large Gas Carriers



Large Gas Carriers



Ethylene Carriers



ENVIRONMENTAL TECHNOLOGY BY CLASS

CLASS	VERY LARGE GAS CARRIERS				LARGE GAS CARRIERS			ETHYLENE CARRIERS		
	Tonnage	78K	80K	84K	88K	60K	60K	60K	17K	21K
Yard (Hyundai, Kawasaki, Meyer)	HHI	HHI	HHI	HHI	KWA	HHI g1	HHI g2	MEYER	HHI	
Panmax	✓	✓		✓	✓	✓				
Neo Panmax	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bosphorus-Max							✓			
ECO hull design	✓	✓	✓	✓	✓		✓			✓
Mewis duct (integrated rudder/propeller)		✓	✓	✓	✓	✓	✓	✓	✓	✓
Re-designed propeller with MAN EcoBulb								✓		
Premium anti-fouling	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Exhaust Gas Cleaning (Open loop or hybrid)	✓	✓	✓	✓			✓			✓
Main engine Tier III technology: LP-EGR or SCR		✓	✓	✓						✓
Aux engine Tier III technology: SCR		✓		✓						✓
OCCS (Onboard Carbon Capture and Storage)										✓*
OCCS Ready				✓						
WESP (Wet Electrostatic Precipitator) exhaust cleaning system		✓		✓						✓
ShaPoLi (shaft power limitation) upgrade	✓	✓	✓		✓	✓				✓
Model tested optimal trim etc.	✓	✓	✓	✓						
Heat recovery on auxiliary engines		✓	✓	✓			✓			✓
Tekomar engine optimization programme	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SPM (Ship performance monitoring)				✓						✓
Vessel performance monitoring	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Certification: NOx Tier I					✓	✓		✓		
Certification: NOx Tier II	✓		✓				✓			
Certification: NOx Tier III		✓		✓						✓
Required EEXI attained	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Numer of vessels	2	2	2	7**	2	3	3	4	4	

* OCCS installed on Clipper Eris

** Six vessels delivered in 2026, one in 2027

SOLVANG'S SUSTAINABILITY APPROACH

An awareness of our footprint, a clear plan for our contribution, and systematic disclosure of material information define Solvang's approach to sustainability.

Solvang's activities – including GHG emissions, pollution, and social and economic effects of shipping – comply with port and flag state regulations, as well as EU and IMO regulations.

Since 2009, Solvang has documented and continuously optimized our fuel consumption, emissions, and operational efficiency through the consistent collection of operational data from all vessels across the fleet.

Materiality assessments

Since 2023, Solvang has conducted double materiality assessments of impacts, risks, and opportunities related to our environmental, social, and governance footprint, according to the ESRS (European sustainability reporting standard), and the EU Taxonomy Regulation.

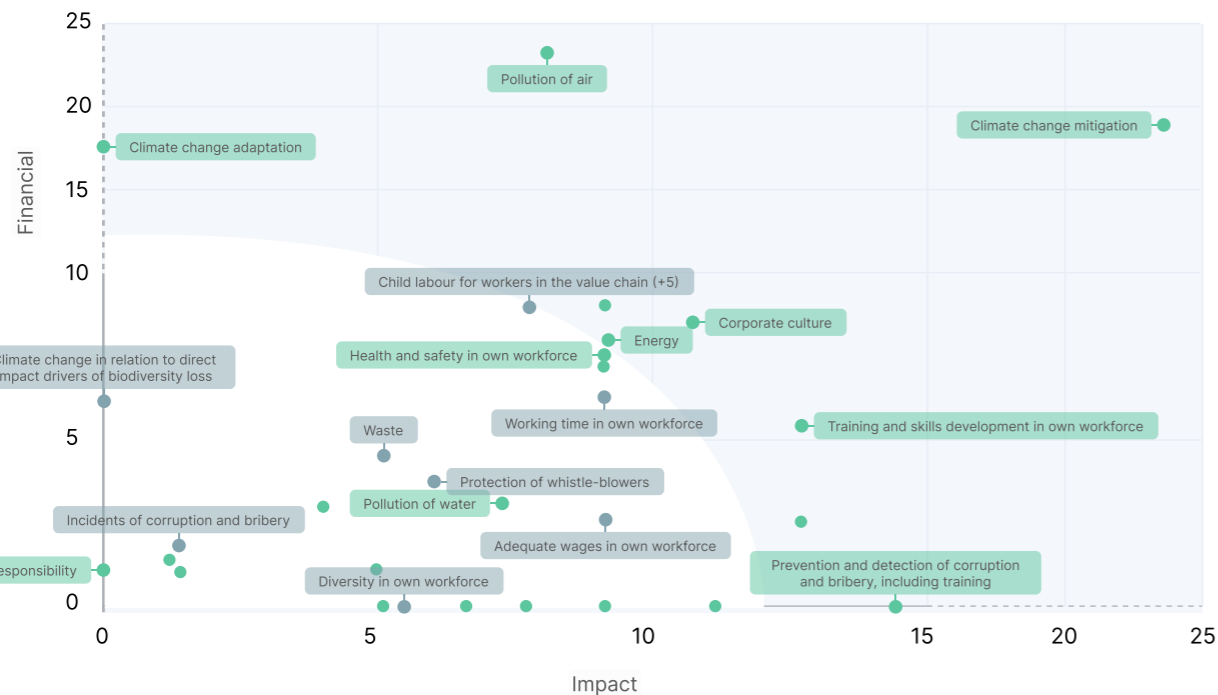
GRI reporting

In addition, Solvang prepares sustainability reporting in accordance with the Global Reporting Initiative (GRI) standards, sectioned by GRI 11 Oil and Gas. Within this scope, we have evaluated the materiality of each designated topic by cross-checking for sustainability relevance, data availability, strategic and human-related importance.

The GRI framework enables transparent reporting on Solvang's impacts on the economy, the environment, and people, covering governance, strategy, policies and practices, climate change mitigation and adaptation, emissions, waste and water management, and social responsibility related to health, safety, and non-discrimination.

Solvang's sustainability footprint

Materiality assessment showing which activities (right high corner) means the most to the environment (x=impact) and to Solvang's operations (y=financial). Light green field to the left means overrun/exception.



VSME: EU sustainability reporting

In 2025, the European Commission adopted the Voluntary Sustainability Reporting Standard for Small and Medium-sized Enterprises (VSME) as a recommendation for companies with fewer than 1,000 employees and annual turnover below EUR 450 million. The Fit for 55 objective – to reduce GHG emissions by 55% by 2030 – remains in place. Starting with the 2025 ESG report, Solvang applies the VSME basic and comprehensive modules, aligned with our double materiality assessment of impacts, risks, and opportunities related to our operations. The VSME report is available on Solvang's website:



Scan for more on solvangship.no/vsme

Policy and management documentation

Solvang's internal policy and management documents with references are available online at solvangship.no/policy.



Solvang's GRI reporting

Solvang's GRI materiality assessment includes:

GRI universal standards

- Three universal standards covering:
 - Organization and reporting choices
 - Activities and workers
 - Governance
 - Strategies, policies and practises
 - Stakeholders

Sector standards

Solvang applies relevant chapters of GRI sector standard 11: Oil and Gas:

Material topic standards

- Biodiversity
- Climate change
- Energy
- Anti-corruption
- Emissions
- Waste management
- Employment
- Occupational health and safety
- Training and education
- Local communities

Omitted topic disclosures

Consult Solvang's website for a list of GRI topic disclosures omitted from the ESG report, and why.



Scan for more on solvangship.no/gri



REACHING THE SUSTAINABLE DEVELOPMENT GOALS

We enable efficient food production



More than 70% of ammonia produced is used in fertilizers, to help sustain food production for billions of people around the world. Several Solvang vessels transported ammonia worldwide in 2025.

Our ethylene fleet transports raw material for essential industrial processes, like the manufacturing of food packaging, which makes it possible to minimize food losses.

LEARN MORE ABOUT OUR CARGO ON PAGES 26-27

We learn every day



The quality of our service is totally dependent on education and training of our seafarers. Solvang is actively supporting the NSA cadet programme in Manila and arranges in-house officer and crew conferences where courses and training are important parts of the programme.

Solvang's "Living the Vision" programme is an on-the-job HSEQ training programme which comes in addition to the flag state's mandatory training.

READ MORE ON PAGE 66-67

A trustworthy provider



Solvang aims to be an industry-leading provider of LPG and petrochemical tonnage to our clients in the safest, cleanest and most cost-efficient manner.

LPG used in industry and households is one of the cheapest and most basic energy sources available. Propane can be used as cooking fuel or fuel for engines with the same after treatment as ordinary gasoline or diesel.

As part of our industry, Solvang makes a valuable contribution in transporting this energy source around the world.

READ MORE ON PAGES 26-27

We care for our people



This statement is supported by our health policy and is one of the main focus areas in Solvang's "Living the Vision" programme.

Our officers and crew members must have the physical and mental strength to meet challenges that confront them every day. We know a healthy lifestyle contributes to well-being, and therefore it has a high priority at Solvang.

We want all employees aboard our vessels to take care of their bodies and minds. Appropriate ergonomics, sufficient exercise and healthy meals are important for the body's machinery.

MEET OUR PEOPLE ON PAGES 64-71

We choose competence

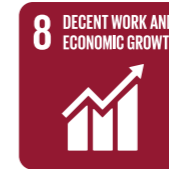


International shipping is male dominated, but Solvang employs people according to knowledge, skills and attitude, not gender.

Women and men have equal opportunities to qualify for all types of jobs and positions, and they have equal opportunities for promotion. Working conditions are deemed to be good. Salaries reflect the individual qualifications, regardless of gender.

READ MORE ON PAGES 62-63

Focus on «happy ships»



One of Solvang's main goals is to have happy, motivated and proactive employees who will stand up for our values with confidence. This is only possible with good working conditions.

One of our main goals is to provide profits for our owners. Our employees receive decent salaries. This provides further growth in the country of residence, through spending and taxation.

MLC is an integral part of our quality system, and all our vessels sail under the Norwegian flag (NIS) where the laws and regulations secure compliance with all legal standards.

READ MORE ON PAGE 62-71

Life Cycle Analysis (LCA)



Solvang follows a well-to-wake philosophy, which means we avoid exchanging fuel oil for a distillate bunker fuel when possible. Life cycle efficiency is our pledge. Such a transfer would lead SOx and other substances in fuel oil to be emitted into the atmosphere from other sectors, like coal and oil power plants burning the residuals for power generation.

If a Solvang owned vessel is to be recycled, the vessel will be recycled in compliance with:

- The Hong Kong Convention.
- The guidelines to the Hong Kong Convention to be issued by the International Maritime Organization;
- The EU Ship Recycling regulation (1257/2013)

READ MORE ON PAGES 38-39

No harm to water life



As part of our sustainability work Solvang has identified and assessed all effluents to the sea. The effluents are rated as significant or non-significant, and programs for monitoring and controlling are in place. This is an important part of our ISO 14001 certificate and compliance.

Our obvious goals are to reduce operational discharges as much as possible and achieve zero spill caused by accidents.

All vessels have an approved ballast treatment plant and biofouling plan, all discharges from the EGC are measured 24/7, and the EGC has water treatment in open loop.

READ MORE ON PAGE 54-55

Peace, justice and strong institutions



Substantially reduce corruption and bribery in all their forms.

Solvang has introduced "Ethical Guidelines" comprising our core values, responsibility for an ethical and conscientious relationship with stakeholders, and a "Supplier code of conduct" embracing the UN Global Compact.

Solvang is also a member of the Maritime Anti-Corruption Network (MACN) and will comply with the good corporate practices in the maritime industry described in their operating charter.

READ MORE ON PAGE 32-33

Developing ECO-friendly vessels



Solvang has a long story for cooperation with both industrial, academic and research organizations and started a programme for green shipping for the future back in 2010.

In 2023, Solvang ordered 7 new VLGCs with the most extensive ECO equipment, ready for OCCS, onboard carbon capture systems.

READ MORE ON PAGES 48-49

Our climate actions



Solvang's full-scale shipboard carbon capture storage and utilization programme holds the potential to capture 70+% of the carbon emissions from fuel oil operation.

Performance monitoring is a critical tool when assessing the efficiency of Solvang's innovations. In 2008, Solvang initiated the in-house programme for vessel performance monitoring. We have collected and reported environmental performance, systematically deploying our findings into continuous improvement of operations into environmental operations, and into newbuildings. Competence, knowledge and Life Cycle Analysis (LCA) are key elements in Solvang's climate actions.

READ MORE ON PAGE 42-47

No harm to life on land



Exhaust emissions from our engines is the main source of influence on life on land. Our assessments have shown the following significant aspects:

- CO₂ (global warming)
- SO_x (cloud formation and acid rain)
- NO_x (cloud formation and acid rain, ground level ozone)
- Particles (visible smoke, health risk)
- THC (global warming, ground level ozone, health risk)
- CO (health risk)

Solvang has established programs for monitoring/controlling and reducing emissions related to all these aspects.

READ MORE ON PAGES 54-55

International shipping



International shipping brings people together from all parts of the world. Solvang is a good example of this.

International shipping has a lot of positive effects that rarely make it to the media headlines. Solvang's goal is not only to be in compliance with rules and regulations, but to contribute to a high standard for quality shipping around the world. The world trade depends on shipping - and we strive to increase our positive impact on our surroundings.

READ MORE ON PAGE 9

GOVERNANCE KEY FIGURES 2025

29 VESSELS



6 Semi-refrigerated Ethylene Carriers



7 Large Gas Carriers



6 Very Large Gas Carriers (+10 to be delivered 2026/27)

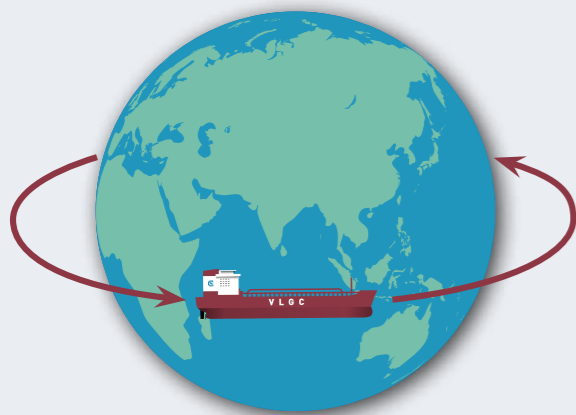
Operating hours (for 21 vessels in operation)

Main engines	110,076 hours
Auxiliary engines	252,729 hours
Boilers	26,551 hours

110,020 maintenance tasks

327.8 days of operation in Particularly Sensitive Sea Areas (PSSA)

0.2% tasks overdue



4 million tonnes cargo worth

2.2 billion USD

73.1 times around the world

1.58 million nautical miles

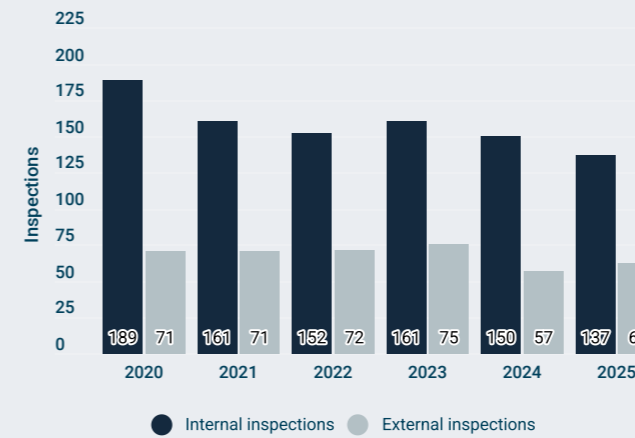
Flag & Port State control 2025

21 DNV inspections
0 non conformities on average

42 port state controls
0.55 observations on average

Internal inspections follow the fleet size (5 per vessel). External inspections by DNV and flag states are done in 5 years interval (3 per vessel).

Inspections 2025



Solvang procedure revisions 2025

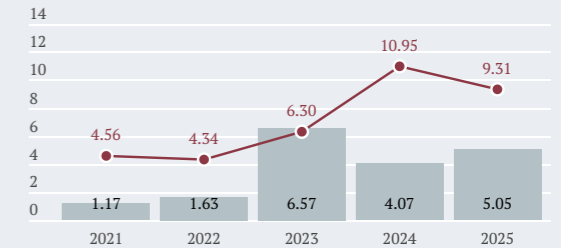
In order to comply with all rules and regulations we make frequent audits of our operating procedures. Below is an overview of how the audits have initiated and how many procedures have been updated in 2025.

REASON	2024	2025
Periodical	6	9
Internal observations	13	1
External observations	3	17
New regulations	23	8
Comments from the crew	27	22
Comments from shore staff	40	37
Risk assessments	0	0
New procedure	11	8
TOTAL	123	102

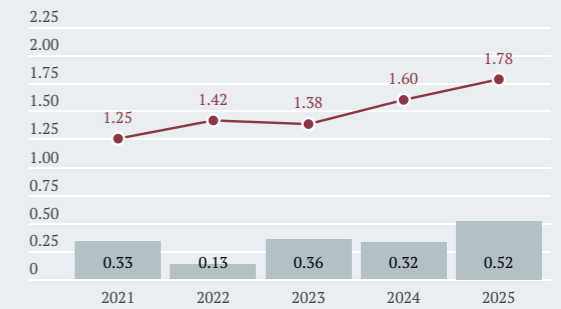
Class benchmarks

Solvang
Benchmark (DNV classed ships of similar types)

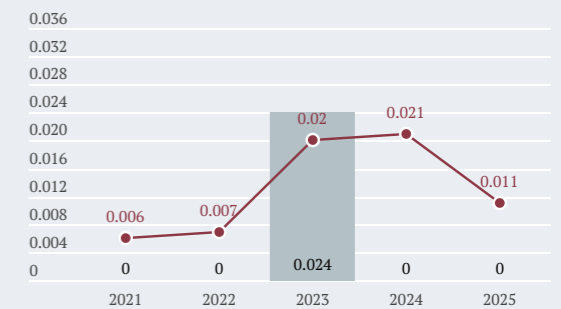
Class findings



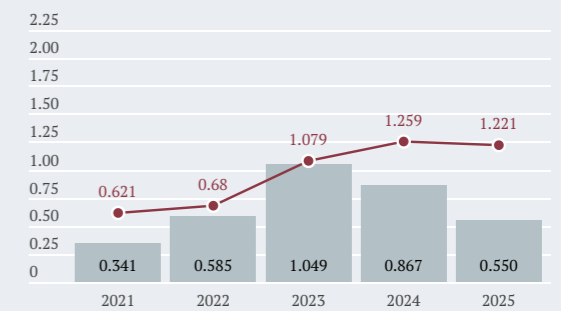
Class conditions



Port state control - Detentions per inspection



Port state control - Deficiencies per inspection

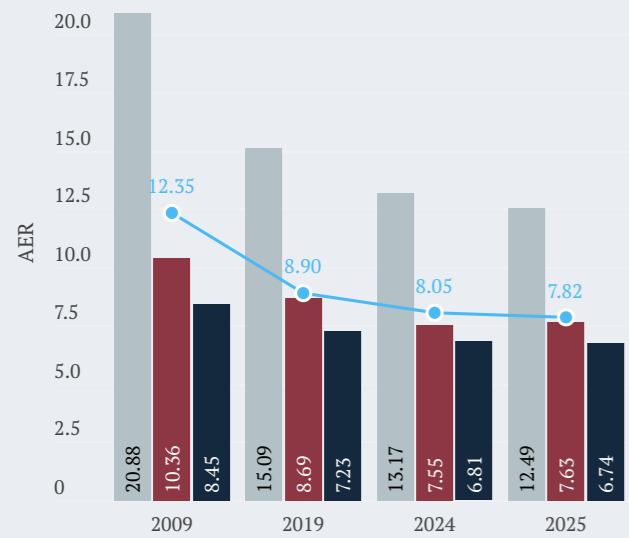


Please note that the benchmark calculations from DNV are continuously being improved and may vary from previous reports.

ENVIRONMENTAL KEY FIGURES 2025

Annual Efficiency Ratio development (AER)

37 % fleet reduction since 2009



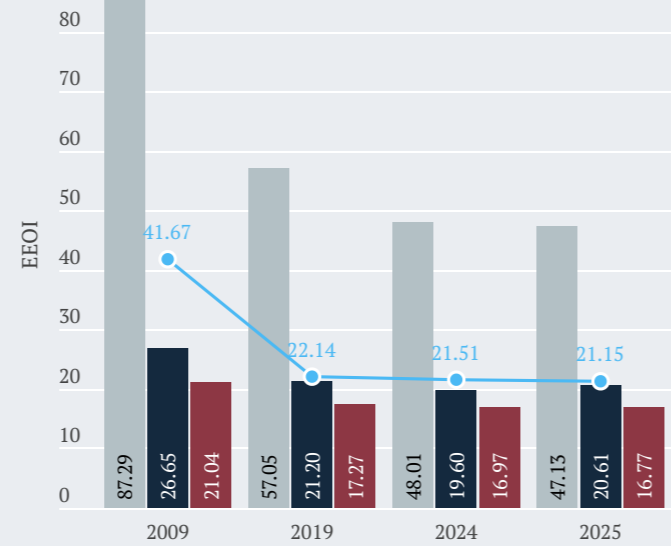
● Average ethylene ● Average VLGC ● Average LGC
● Average total fleet

AER reduction 2009 - 2025

Total fleet - 37 %
Ethylene - 40 %
LGC - 26 %
VLGC - 20 %

Energy Efficiency Operational Indicator (EEOI)

49 % fleet reduction since 2009

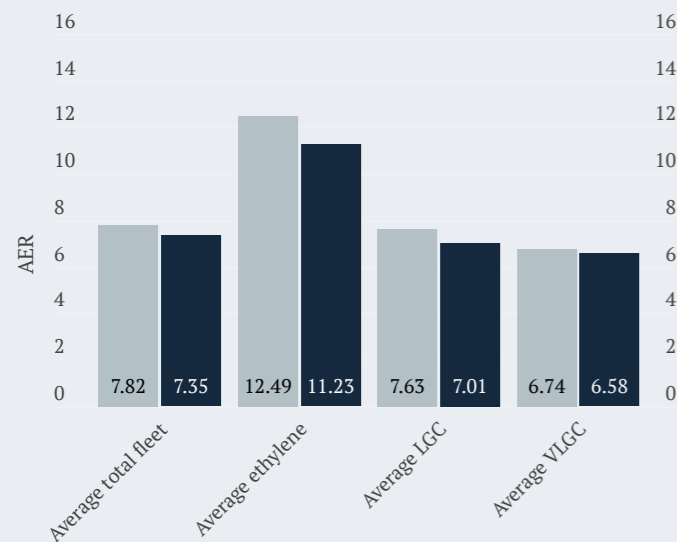


● Average ethylene ● Average LGC ● Average VLGC
● Average total fleet

EEOI reduction 2009 - 2025

Total fleet - 49 %
Ethylene - 46 %
LGC - 23 %
VLGC - 20 %

AER vs AER at sea



● AER 2025 ● AER 2025 at sea

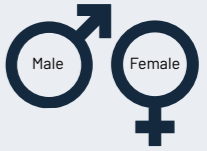
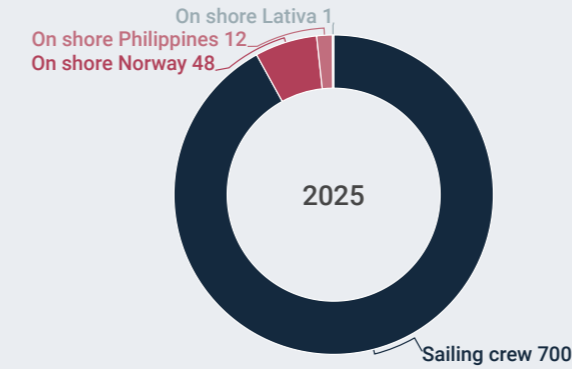
Fuel consumed

Bunker fuel 164,009 tonnes
Lube oil 1,217,000 litres

Emissions

511,184 tonnes CO₂
762 tonnes SO_x
10,447 tonnes NO_x → **90%** SO_x reduction since 2009

SOCIAL KEY FIGURES 2025



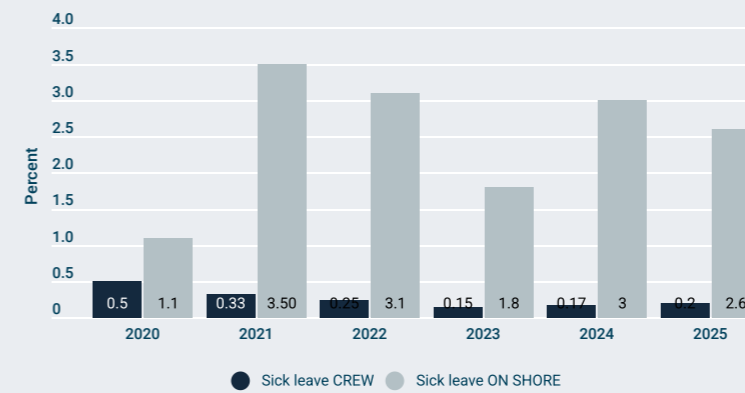
Gender balance

Category	Male	Female
Onshore office Norway	56%	44%
Onshore office Manilla	31%	69%
Sailing crew	97%	3%

Lost Time Injuries 0

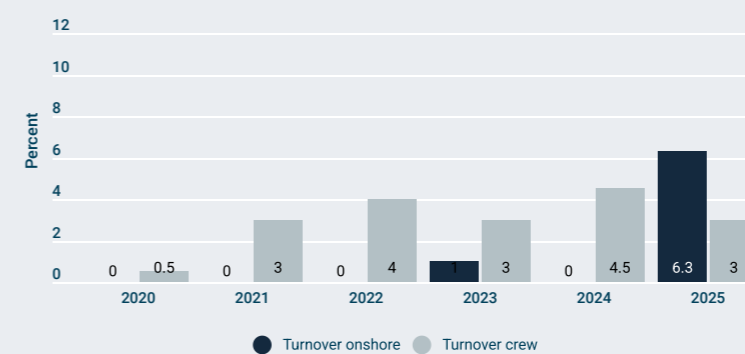
Total Recordable Case Frequency 0

Sick leave



Year	Sea	Office
2025	0.20%	2.60%
2024	0.17%	3.00%
2023	0.15%	1.80%
2022	0.25%	3.10%
2021	0.33%	3.50%
2020	0.44%	1.15%

Employee turnover



Year	Sea retention rate	Office turnover
2025	97.00%	6.30%
2024	95.50%	0.00%
2023	97.00%	1.00%
2022	96.00%	0.00%
2021	97.00%	0.00%
2020	99.50%	0.00%
2019	98.00%	0.00%



GOVERNANCE

CORPORATE GOVERNANCE IN SOLVANG

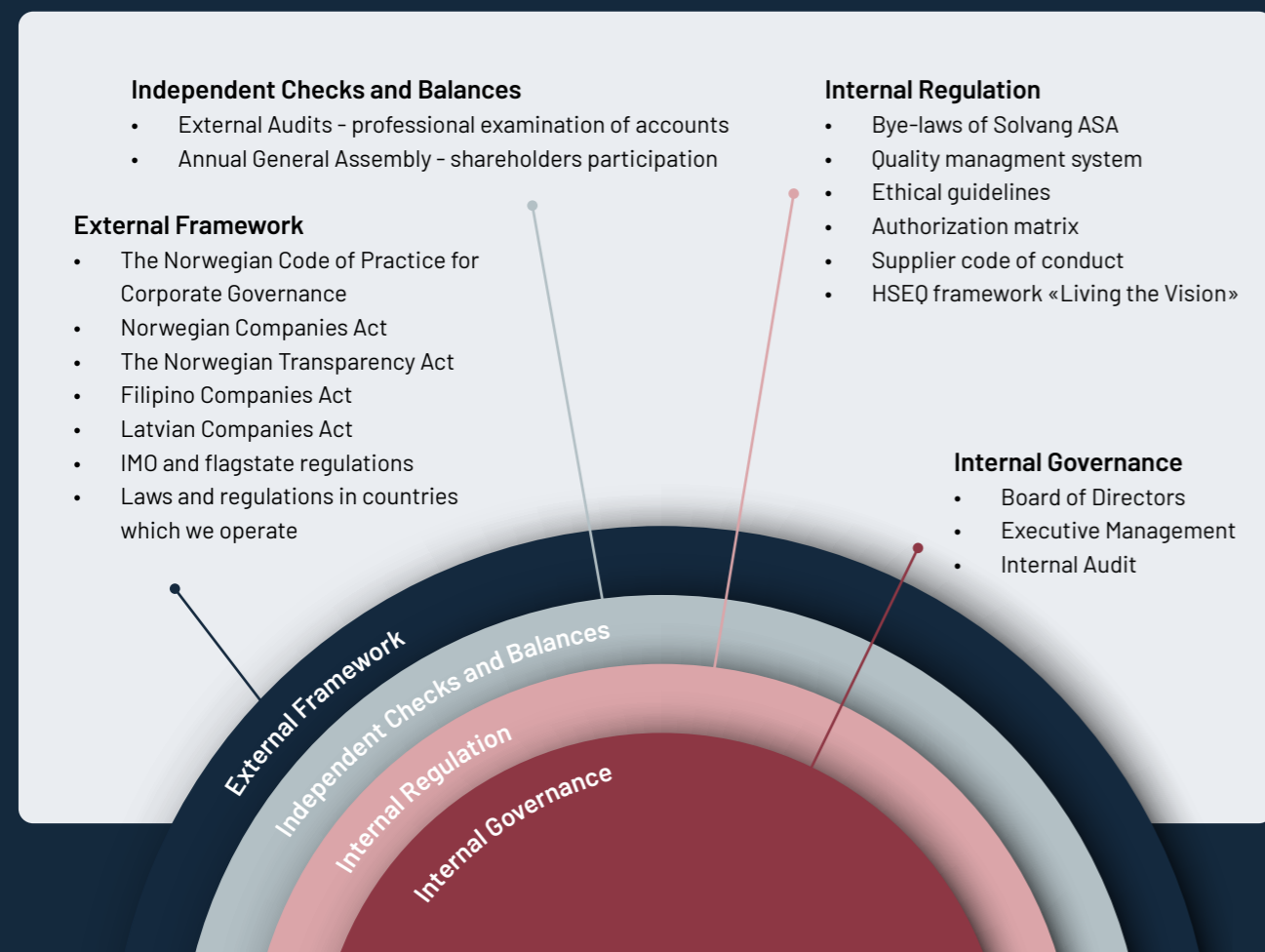
Top-level control mechanisms and a flexible management driven by core values of mutual respect, team spirit and quality – this constitutes Solvang’s principal governance structure.

By focusing on the core values of mutual respect, team spirit, and quality in everything we do, Solvang has managed to create a culture of ethical conduct which positively contributes to financial results.

The Board of Directors maintain control of ESG impacts, risks and opportunities by mandatory approval of all significant operational and financial dispositions, internal control procedures, external audits, and monitoring of the supply chain. By loyally adhering to our principles, Solvang

believes that gradual improvement will take place for all our stakeholders.

Solvang is committed to fight discrimination in all our activities, including our employees and partners in the supply chain. We conduct our business with social awareness and respect for colleagues, business partners, authorities and competitors. Solvang aims to be marked by high standards for health, environment and safety, in full compliance with present legislation.



Board of Directors



Michael Steensland-Brun
Chairman



Ellen Solstad
Independent Director



Christian Frustøl
Independent Director

Solvang ASA Executive Leadership



Edvin Endresen
Chief Executive Officer



Kim Larsen
Commercial Director



Egil Fjogstad
Chief Financial Officer



Tor Øyvind Ask
Fleet Director



Kjetil Meling
HR Director

GRI references

2-9 Governance structure and composition (Group level): Board of Directors (3 non-executive; 2 independent; 1 owner representative; annual tenure; 2 male / 1 female). Management Group: CEO, CFO, Fleet Director, Commercial Director, HR Director. Board oversees economic, environmental and social matters.
2-10 Nomination and selection of highest governance body: Board elected annually by the General Assembly. Criteria: shareholder perspective, diversity, independence, ESG competence.
2-11 Chair of the highest governance body: No executives among board members
2-12 Role in overseeing impact management: Board reviews ESG strategy, policies and goals. Operational oversight delegated to management.
2-13 Delegation of responsibility: ESG responsibilities assigned to management. Quarterly reporting to Board; annual ESG review.

GRI references

2-14 Role in ESG reporting: Board reviews material topics and ESG disclosures prior to publication.
2-15 Conflicts of interest: Case-based revision of cross-board roles, ownership links, related-party transactions.
2-16 Communication of critical concerns: Critical issues reported to the Board as required. 2025: None.
2-17 Collective knowledge of highest governance body: ESG competence maintained through training, management briefings and external expertise.
2-18/19 Board of Directors' Report: Evaluation of performance (2-18), Remuneration policies (2-19)
2-20/21 Financial statement: Process to determine remuneration (2-20), Annual total compensation ratio (2-21)

OUR IMPACTS, RISKS AND OPPORTUNITIES

For 2025, Solvang has assessed sustainable impacts, risks and opportunities throughout our portfolio and operations. Our goal is to align with the Paris Agreement’s 1.5°C primary goal, to eliminate corruption and to promote social responsibility.



Impacts

Onboard carbon capture

Solvang’s OCCS pilot has yielded a consistent capture rate >70% of exhaust CO2 from Clipper Eris in full operation. Seven newbuild VLGCs get delivered OCCS-ready.

Total emission control

Solvang minimizes emissions combining low-pressure exhaust gas recirculation (LP-EGR), hybrid exhaust gas cleaning (scrubber with washwater cleaning), electrostatic particle filtering (WESP), OCCS and load optimization.

Proactive anti-corruption

Solvang reports all attempted corruption cases to the MACN database, and we make suppliers align with our CSR guidelines. We post anti-corruption notices in captains’ offices, and we offer frequent training to all relevant staff.

Work-life balance measures

Solvang offers well-being, mental health, and overall satisfaction services to our employees, to help them manage their professional responsibilities and personal lives.

Risks

Scope 1 GHG emissions

Solvang applies conventional fuel, which produces scope 1 GHG emissions inflicting climate change, unless mitigated. Solvang’s long-term mitigation and energy efficiency strategy have yet to provide net-zero emissions.

Technology risk

Solvang is a pilot partner in OCCS and other ECO-innovation projects, which depend on official and

market approval to enter into regular operation. The environmental and financial risk is that new technology don’t get market support in spite of technical success.

Supply chain dependencies

Solvang relies on suppliers to comply with our ethical guidelines and official regulations. Supplier declarations or random audits cannot provide full assurance, especially regarding suppliers in high-risk countries.

Emission tax risk

Increasing carbon intensity requirements for C rating pose a risk to the long-term sustainability of Solvang’s conventional fuel operation. The risk implies financial costs for retrofits, upgrades and newbuilds.

Opportunities

Green loans

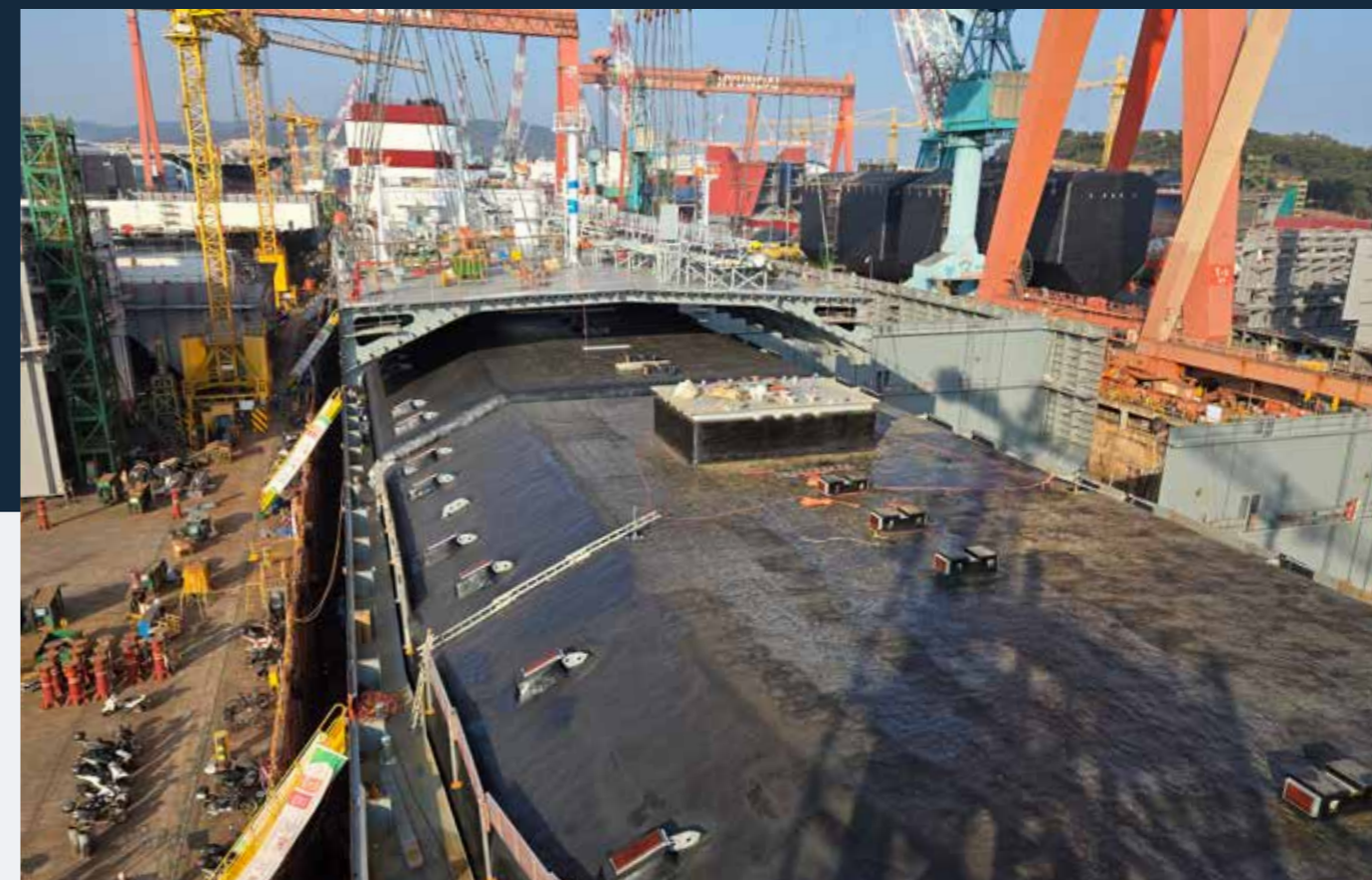
By delivering GHG reduction Solvang is granted lower interest rates on loans linked to sustainability.

Emission tax savings

Solvang’s total emission control and operational optimization yield AER reductions potentially qualifying for the EU ETS framework or IMO net-zero emission project.

Reliable HSEQ data

Since 2008 Solvang has maintained complete operational data from our performance KPIs, covering everything from human factors, to safety, environment, operational experience, and quality (HSEQ). The aggregated data represent a span of opportunities.



Solvang newbuilding Panamax VLGC under construction in Ulsan, Korea.

TARGETS AND METRICS OF GOVERNANCE SUSTAINABILITY

GOVERNANCE AND COMPLIANCE		
2026 target	2025 progress	2025 targets
55 technical inspections (FM) (2 per vessel)	37 technical inspections (FM) due to sold vessels	44 technical inspections (FM) (2 per vessel)
120 internal audits (MS)[-] (5 per vessel)	100 internal audits (MS)[-] (5 per vessel) due to sold vessels	105 internal audits (MS)[-] (5 per vessel)
Average number of non-conformities Class: 0	0	Average number of non-conformities Class: 0
Zero detention	0	Zero detention
Observation Port State < 0.5	0.55	Observation Port State < 0.3

PRODUCTS, ACTIVITIES AND WORKERS

The disclosures in this section provide an overview of the organization’s products, activities, and human resources.

Solvang operates within marine transportation, including shipping, ship management, and ownership of vessels. We divide our operation into six semi-refrigerated/ethylene carriers, seven LGC vessels, and six VLGC vessels, plus seven newbuild VLGCs under construction for delivery during 2026-2027.

In 2025, Solvang transported a total of 4.03 million tonnes of cargo over 1.58 million nautical miles. The value of the cargo transported in 2025 has an estimated value of 2.2 billion USD.

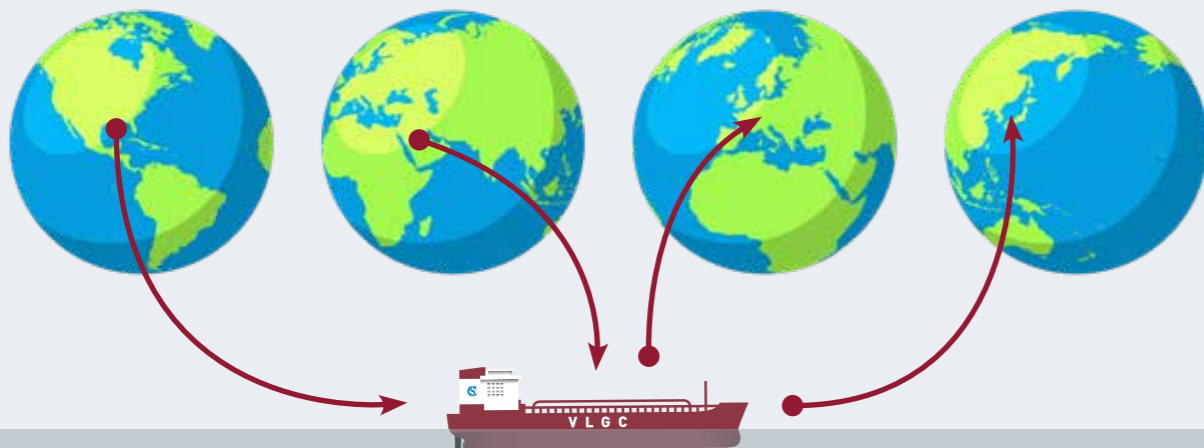
Our cargo LPG, petchem and ammonia tonnage

Our cargo includes ammonia gas (NH₃), which is traditionally used as a feedstock in production of fertilizers, soap and cleaning agents. The development of green ammonia for energy storage and hydrogen production is an example of the growing relevance of ammonia as a cargo. Potentially, it is a zero-carbon fuel in itself. Of Solvang’s LPG cargo, butane and propane are used for heating and cooking as well as a raw material in the petchem industry.

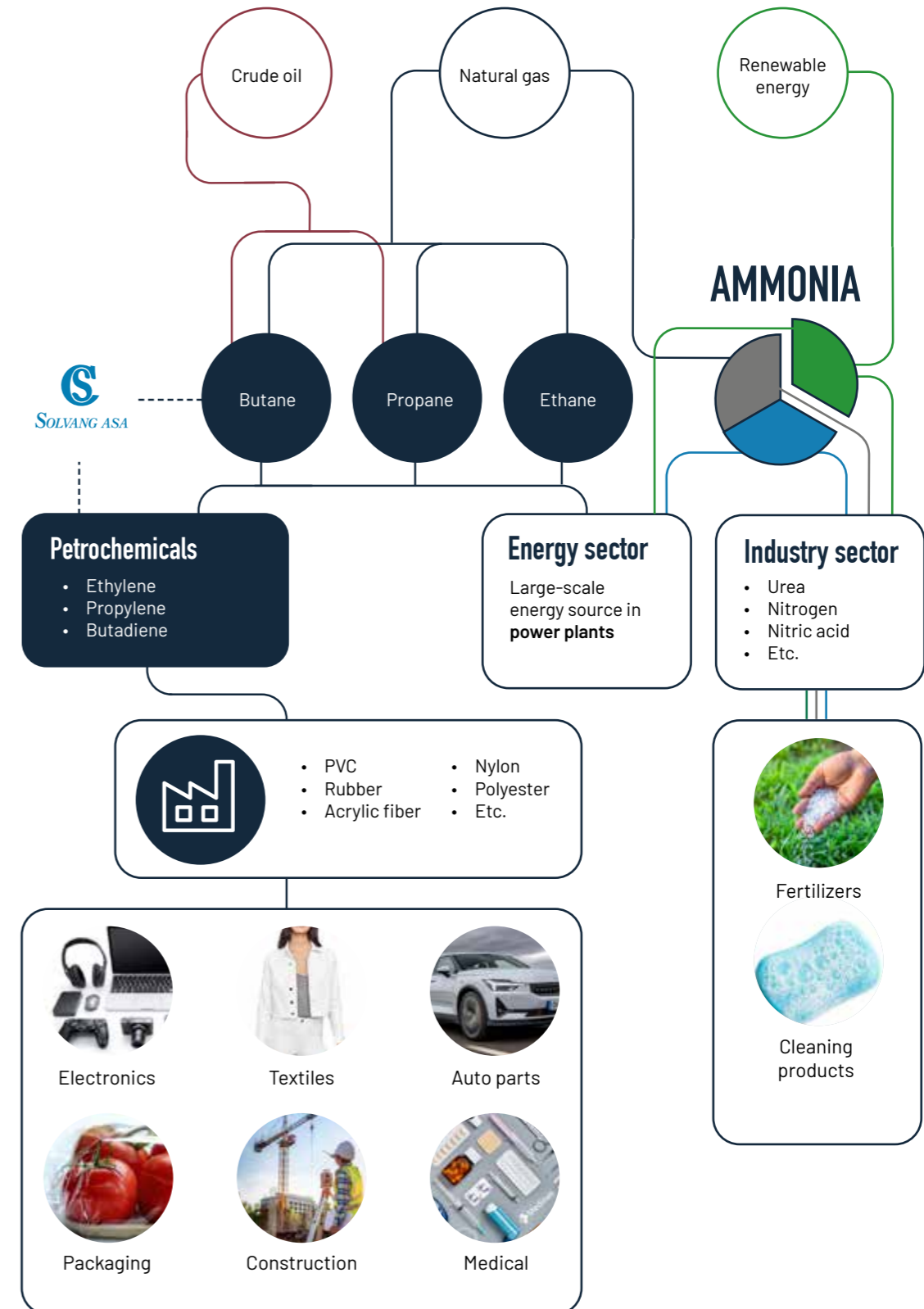
Butane makes **butadiene**, used in synthetic rubber and plastics, such as PVC. Propane makes **propylene**, the basis for polypropylene plastics in everything from auto parts to textiles and pharmaceutical production. Medical equipment and medicines both rely on plastic products. The third major LPG gas is **ethane**, a precursor for ethylene and polyethylene used in packaging, containers, and insulating materials. Of Solvang’s products and services, none are banned or under public concern.

Our markets Solvang serves global markets, including:

- **Asia:** Large importers of LPG (China, Japan, South Korea)
- **Middle East:** Key export hubs for LPG and petrochemicals.
- **Europe:** Petrochemical clusters, fertilizer producers, and energy markets.
- **Americas (especially U.S. Gulf Coast):** Major LPG and petrochemical producers.



PETCHEM AT A GLANCE



APPRECIATING OUR STAKEHOLDERS

Solvang’s success is underpinned by close collaboration with employees, customers, terminal personnel, and other key stakeholders.

Appreciation of stakeholders is a key to deliver to the mark on both sides. In line with GRI, the Norwegian Transparency Act, the UN social development goals and EU sustainability regulations, Solvang surveys our stakeholder relations. The purpose is to apply feedback to improve as a company, to keep key stakeholders happy, and to gather support for our strategic dispositions. “When we asked our stakeholders to review Solvang’s sustainability priorities, we received a unison endorsement,” says Irene Ringen, Sustainability and Performance engineer at Solvang.

Key stakeholders are defined as owners, own employees and terminal personnel (external). In addition, Solvang identifies contractors and subcontractors, financial institutions and customers as **value chain stakeholders**. Other related entities include government and regulators, municipalities, interest organizations, national and international unions, and research institutions, which all play an important role in Solvang’s results. “Solvang is proud to involve so many people in our business, and we welcome all to reach out and let us know how we are doing,” says Ringen.

Other relationships

Solvang maintains business relationships beyond its direct value chain.

Joint ventures

Vessel management and ownership structure

Banks and financial institutions

Vessel financing, refinancing, loan facilities, guarantees in newbuilding and fleet operations

Insurance

(War Risk Club, P&I Clubs and Hull & Machinery insurers)
Risk underwriting, claims handling, compliance support, and loss-prevention services

Flag and Classification societies

Technical surveys, safety inspections, environmental compliance audits, and certification

Maritime associations

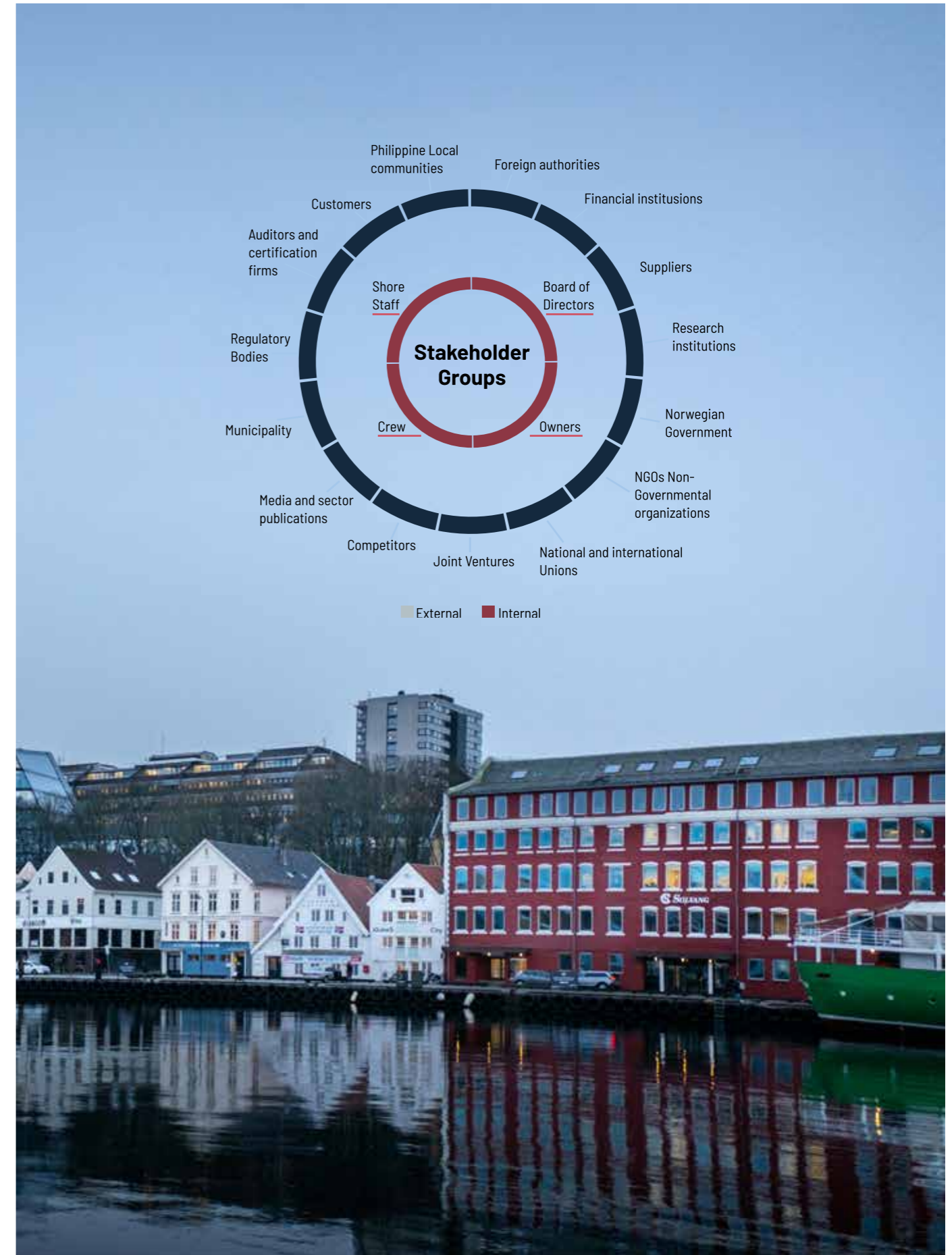
Safety-related, environmental and technological development, ethical conduct and anti-corruption networks

OCIMF and SIRE

Vetting

Technical consultants, engineering partners, research institutions

A.o. feasibility studies, alternative fuel assessments, ship design innovation, decarbonization strategies



- It's all about the team

The Quality Awards 2025 shows a full range of scores across the fleet – giving every crew a chance to beat the gold winner Clipper Venus.

«The competition between the crews is very sharp – it is a fantastic achievement by Clipper Venus to maintain these statistics of excellency year after year,» states Tor Øyvind Ask, Fleet Director of Solvang.

In 2025 Clipper Venus won its seventh (!) Quality Awards gold since 2015, with a weighted score of 1.28. Clipper Orion came out second with the score 2.45, while the newcomer Clipper Explorer got 2.50.

«Reaching a top-three in our fleet is an achievement which the crew, officers and onshore organizations should be very proud of.»

The Quality Awards is a contest between Solvang vessels, but according to the fleet director the competition reaches far wider.

«Based on statistics and experience, we like to believe that we have among the most capable crews in the world – both sailing personnel and the onshore organization.»

Major SIRE 2.0 changes

The Quality Awards measures external vetting results from CDI and SIRE inspections, plus port state and DNV inspections. 2025 was the full regular year of the new SIRE 2.0 inspections regime, representing a risk-based approach focusing on human factors, comprehensive equipment management, and real-time, tablet-based reporting. This implied a relatively higher number of observations, which doesn't mean the quality of the vessels or their operations have deteriorated overall.

«With the revised vetting framework we look forward to establishing a new baseline for the vessels, and we believe the final result will be improved quality in our fleet,» says Mr. Ask.

All about the team

Among this year's Quality Awards contenders, there are two LGCs and three VLGCs among the top five. This is of particular interest to the fleet director.

«We register significant improvements of individual vessels of very different production year and configuration. This means that performance depends on the crew and the ship management – not the equipment. The team has all the power to change from a low to top position,» says Mr. Ask. He encourages the vessels which received more observations than expected in 2025.

«Solvang appreciates the crews' continuous hard work through all the ongoing changes. You have a determination to minimize the number of observations across the fleet. It takes team spirit and mutual trust to report all incidents over time to get better, and every team has the opportunity to win the Quality Awards next year,» says Tor Øyvind Ask.



The proud crew of Clipper Venus have received seven gold medals in Solvang's Quality Awards competition since the ship was launched in 2015.



All of Clipper Venus' awards on display in the captain's office

Anti-corruption:

PUTTING ALL SYSTEMS TO WORK

Solvang’s anti-corruption achievements come from highly integrated operations, putting ethics, fair competition, and safety to work across all activities.

At Solvang, ethical conduct, fair competition, and occupational safety are embedded into how vessels are operated, how decisions are made, and how people are protected at work.

This integrated approach is anchored in Solvang’s anti-corruption policies and procedures, covering the entire organization—from vessels and offices to suppliers and business partners. It is available to all employees in the SMS, Solvang’s ship management system. This is complemented by posters in captains’ offices.

Training and awareness initiatives are carried out regularly, including at company conferences held three times a year. Approximately 80% of relevant staff—primarily captains and chief officers who are most exposed to risk—received targeted anti-corruption training during the reporting period.

Standing firm against corruption

Shipping operations often take place in environments where demands for facilitation payments or informal “gifts” are common. Solvang recognizes this risk and addresses it head-on, with particular focus on port stays where exposure risk is highest.

“We maintain a culture of reporting all incidents of attempted corruption, and to keep updated maps of high-risk areas», states Mr. Per Øyvind Nedrebø, HSEQ and Performance Manager in Solvang.

Reports received during 2025 confirm that the system works as intended: incidents reported were of a petty nature—typically involving low-value items such as soft drinks or cigarettes—and no cases exceeded USD 500. Importantly, the absence of more serious cases is not

taken for granted; instead, it reinforces the need for vigilance, reporting, and transparency.

MACN

Solvang consistently reports confirmed cases to the Maritime Anti-Corruption Network (MACN), contributing to collective industry learning and reinforcing a zero-tolerance approach. Anti-corruption clauses are standard in contracts, and integrity checks—such as Know Your Customer (KYC) processes—which apply to assessing partners, including joint ventures and consortia.

Fair competition as a baseline

While Solvang’s HSEQ function does not lead competition law training, it contributes to the broader compliance environment by ensuring that ethical expectations are clearly communicated in commercial and operational activities and that potential risks are escalated appropriately.

Any legal matters related to competition or anti-trust are handled through established corporate governance channels, ensuring separation of responsibilities while maintaining transparency and accountability.

Safety as a shared responsibility

Solvang’s occupational health and safety management system covers all employees, no exception. It is implemented in strict accordance with the International Safety Management (ISM) Code and supported by the Maritime Labour Convention (MLC) and IMO’s STCW (International Convention on Standards of Training, Certification and Watchkeeping for Seafarers). The system is certified in accordance with ISO 14001:2015.



“The culture of reporting and posting incidents serves as a training tool not only to the crew but the entire organization.”

Per-Øyvind Nedrebø,
HSEQ and Performance Manager

Solvang uses structured risk assessments (RA) and management-of-change (MOC) processes to ensure that new or altered activities are evaluated before implementation. Generic risk assessments—covering activities such as mooring—are adapted to specific conditions and reviewed after each use. All documentation is maintained in a central digital system accessible to all vessels and staff.

Lessons learned are shared through multiple channels, including monthly feedback, experience-sharing forums, management reviews, and the company’s “Living the Vision” programme.

Continued prevention

Solvang continuously considers health and safety impacts linked to business relationships. While no significant risks were identified at contractors or suppliers in 2025, the company continues preventive measures. This includes technical inspections, internal audits, and regular dialogue with vessels and partners.

Data on work-related injuries and ill health are monitored centrally, enabling trend analysis and continuous improvement. Preventive efforts focus on training, technical integrity, regular inspections, and structured follow-up—recognizing that safety performance is built over time, not achieved through isolated actions.

GRI references

205-1 Operations assessed for risks related to corruption: All. Solvang uses structured risk assessments (RA) and management-of-change (MOC) processes to ensure that new or altered activities are evaluated before implementation.

205-2 Communication and training about anti-corruption policies and procedures: Monthly feedback, experience-sharing forums, management reviews, and the “Living the Vision” programme.

205-3 Confirmed incidents of corruption: None; and **actions taken:** None.



Supply chain:

HEADED FOR GLOBAL INTEGRITY

Solvang promotes ethical, environmentally responsible and socially sound conduct among our suppliers. Through strengthened prequalification and risk management practices, we help support integrity throughout the value chain.

In 2023, Solvang commissioned a digital platform for supplier screening and ESG risk management. The system, Profit Base, was implemented by year-end 2024 and became fully operational in 2025. It includes a comprehensive questionnaire and documentation repository enabling suppliers to self-declare their environmental, social and governance practices. The tool supports Solvang's efforts to monitor alignment with our CSR guidelines, which are based on the UN Global Compact and the ILO Core Conventions.

"We now have a stable and well-functioning system for supplier prequalification and follow-up, which allows us to spend more time on strategic purchasing and improvement initiatives," says Supply Chain Manager Tanja Hunshamar.

Incentra negotiation board

As a member of Incentra, a maritime purchasing consortium, Solvang also contributes to promoting responsible and ethical conduct beyond our own direct suppliers. Mrs. Hunshamar serves on Incentra's negotiation committee, which oversees procurement categories including fuels and lubricants, technical spare parts, dry-docking services, navigation and communication equipment, safety equipment, and selected digital and financial systems. "We want our values of mutual respect, team spirit and quality to be reflected not only in Solvang's supply chain, but also across the wider maritime industry," she says. "With improved internal systems in place, we can participate more actively in collaborative initiatives that strengthen responsible procurement."

GRI references

- 308-1a Percentage of new suppliers screened using env. criteria: 100%
- 308-2a Number of suppliers assessed for env. impacts: n/a
- 308-2b Number of suppliers with env. impacts: n/a
- 308-2c Env. impacts identified in the supply chain: Most suppliers have an ECO strategy, recycle procedure for empty oil barrels to Gulf, and similar projects.

GRI references

- 308-2d Percentage of suppliers with env. impacts with which improvements were agreed upon: None, due to audit of suppliers in environmental impacts procedures.
- 308-2e Percentage of suppliers with env. impacts with which relationships were terminated, and why: 1, due to non-compliance



Facts: CSR guidelines

Solvang's ethical guidelines are based on the UN Global Compact, covering environment, corruption, workers rights and human rights. Aspiring suppliers should as a minimum have similar CSR targets and commit to the following:

Human rights

- Support and respect the conservation of internationally recognized human rights.
- Ensure no complicity in the violation of human rights

Working conditions

- Uphold freedom of association and ensure the right to collective bargaining (ref. ILO conv. 87, 98)
- Abolish all forms of forced labour (ref. ILO conv. 29, 105)
- Abolish child labour (ref. ILO conv. 138, 182)
- Eliminate discrimination in the workplace (as per ILO conventions 100, 111)

Environment

- Support a precautionary approach to environmental challenges
- Promote increased environmental responsibility
- Promote eco-friendly technology

Corruption

- Oppose all forms of corruption, including blackmail and bribery



Due diligence

In 2025, Solvang continued its due diligence efforts by applying the Profit Base questionnaire across our major supplier relationships. Suppliers were assessed against Solvang's ethical guidelines, which include human rights, working conditions, environmental responsibility, anti-corruption, responsible sourcing of minerals and expectations for supply chain transparency. The assessment process also incorporates Solvang's mandatory prequalification of third-party vendors and ongoing dialogue with key stakeholders.

While suppliers completed screening and documentation requirements, no suppliers were identified as having significant actual or potential negative environmental or social impacts in 2025, and no supplier contracts were terminated on these grounds. Solvang does not publish the total number of suppliers screened or assessed, nor the number of suppliers requiring follow-up actions. However, high-risk supplier categories—such as shipyards, manning agencies, waste-handling providers, technical service yards and fuel suppliers—remain subject to enhanced attention through our questionnaire-based due diligence model.

GRI references

- 414-1a Percentage of new suppliers screened using social criteria: 100%
- 414-2a Number of suppliers assessed for social impacts: All checked
- 414-2b Number of suppliers with social impacts: 0
- 414-2c Social impacts identified in the supply chain: 0
- 414-2d Percentage of suppliers with social impacts with which improvements were agreed upon: 0

GRI references

- 414-2e Percentage of suppliers with social impacts with which relationships were terminated, and why: 0



ENVIRONMENT

THE BIGGER PICTURE OF CLEAN SHIPPING

Solvang’s strategy is to pick the shortest open route to emission cuts. Currently, that route is efficiency optimization and cleaning exhaust gas – including CO2 – from conventional fuel operation.

Solvang’s environmental plan is built on a system-level assessment of energy use, looking at the full well-to-wake (WTW) impact of maritime fuels. Ever since emission-free alternative fuels were introduced some ten years ago, Solvang has questioned whether the global energy system is able to supply sufficient volumes of such fuels for large-scale deep-sea operations. That concern has since increased. Today, the scarcity and rising cost of decarbonization of e-fuels pose a challenge to the IMO’s net-zero ambitions. Therefore, Solvang assesses that alternative fuels are important for the global energy transition, but there may be other measures that are more efficient for emission cuts in deep-sea shipping: Optimizing conventional operations, combined with total emission control, including onboard carbon capture.

Well-to-wake calculations

Like more than 95% of the world’s deep sea vessels, Solvang’s entire fleet operates on conventional maritime fuels – marine gas oil (MGO) and, most frequently, heavy fuel oil (HFO). When assessing the full life cycle of energy from upstream production and processing to its final use for cargo transport, the environmental characteristics of HFO become clearer. As a residual fuel, HFO is energy-efficient to produce, with minimal upstream losses compared to highly processed alternatives. When conventional fuel operation is combined with optimized hull design, machinery, and operational practices, as well as Solvang’s total emission control system, the vessels comply with the strictest IMO and EU environmental requirements. In comparison, alternative fuels like hydrogen, synthetic e-fuels, or electricity require substantial amounts of energy to produce upstream – often including less environmental input such as coal energy.

Sharing limited supply

From a systems perspective, Solvang’s conventional fuel approach avoids straining electricity grids, renewable generation capacity, and hydrogen production – all of which are exploited already. Instead, Solvang contributes

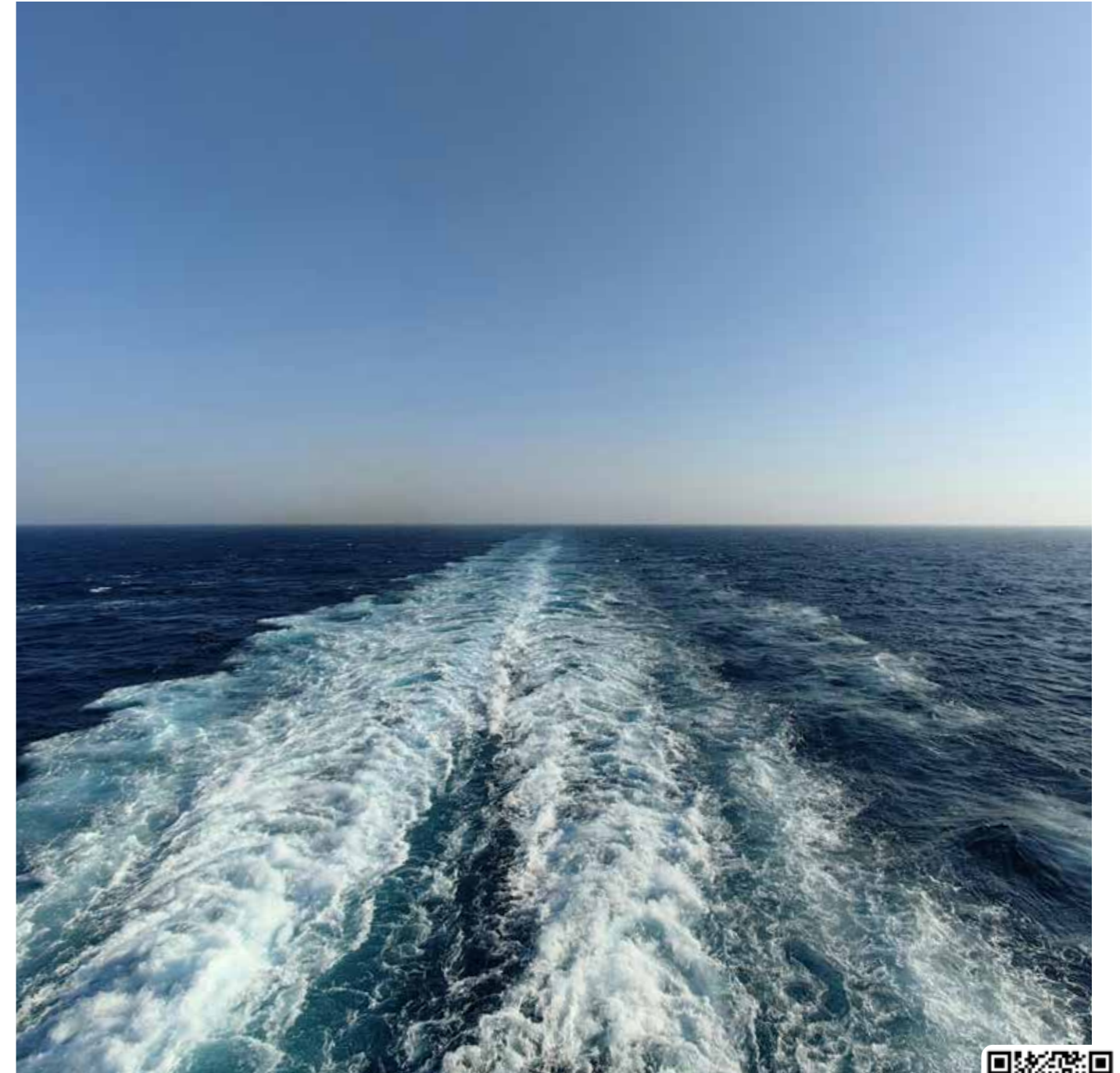
to saving limited zero-emission fuels for sectors with fewer alternatives, such as aviation and certain industrial processes. While staying open to positive changes in global energy supplies, Solvang continues to use conventional fuels efficiently while preparing to neutralize a significant share of their emissions through OCCS – onboard carbon capture and storage. This way, we hope to contribute to a more balanced and realistic energy transition, where limited resources are deployed where they create the greatest output.

Flexibility over lock-in

A defining feature of Solvang’s environmental plan is technological flexibility. No single solution currently satisfies all requirements for scalability, safety, energy efficiency, or climate performance. Recognizing this, Solvang designs newbuildings to be future-fuel ready, allowing extra space for emission-control systems and adaptable energy layouts, as well as catering for onboard carbon capture and storage installations. Conventional fuels are not treated as an end state, but as a platform – optimized, cleaned, and controlled – to bridge the transition toward a lower-emission future.

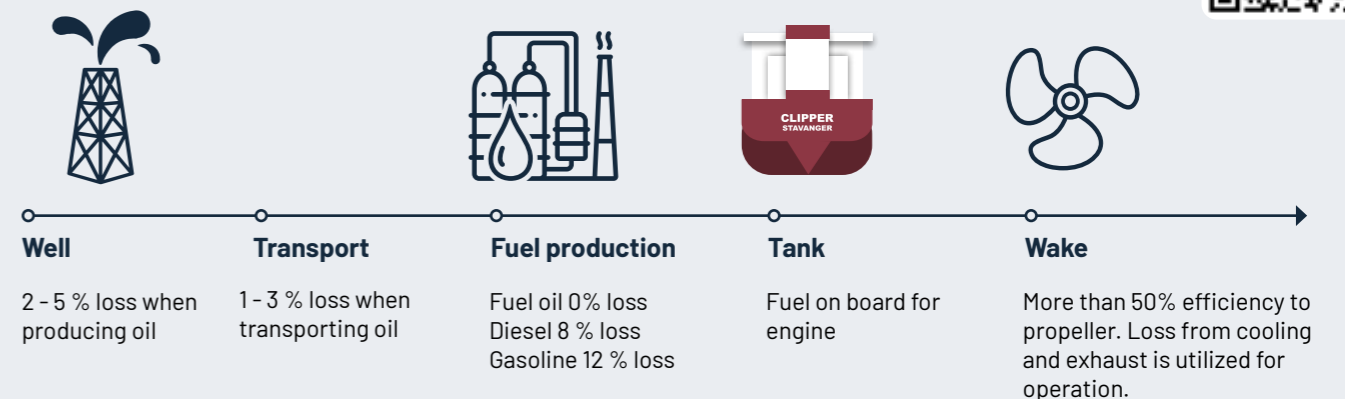
Fact: Available fuel types

- Conventional fossil fuels; HFO, VLSFO, MGO, LNG and LPG (with or without OCCS/ onboard carbon capture and storage)
- Biofuels
- Hydrogen and ammonia (conventional and e-fuels)
- Synthetic e-fuels (gaseous or liquid fuels produced from hydrogen and carbon captured by using renewable electricity)
- Electric power from batteries charged from the grid



What is the well-to-wake principle?

Scan to read the article "THE WELL-TO-WAKE REALITY"



Regulations under pressure

COMING TO TERMS WITH REALITY

Global climate targets are intact, but regulatory pathways are redrawn as the UN and EU struggle to align ambition with economic and technological reality.

In October 2025, the IMO in London failed to gather its member states behind an adoption of the long-anticipated net-zero GHG framework. The new regulation was set to charge a fixed fee per CO₂-equivalent emitted, which would be a game changer in global shipping.

"We must conclude that the proposed framework was rejected by the United States and a group of supporting countries," says Tor Øyvind Ask, Fleet Director at Solvang. "However, the overarching carbon cut policy for shipping remains in place."

Need for a new proposal

According to Solvang's Fleet Director, the proposal was perceived as a fuel taxation without reinvesting the takings into technologies which could help the maritime sector become greener.

"We need a carbon pricing system that allows shipping companies to establish credible depreciation schedules and financing structures for investments in efficiency, alternative fuels and carbon capture."

The EU jurisdiction

Alongside global regulatory uncertainty, the European Union has moved from climate policy design to implementation. This directly affects shipping through the FuelEU Maritime regulation. At year-end 2025, the regulation still didn't recognize onboard carbon capture, due to CO₂ offloading capacity and value chain still being established.

"We have strong expectations that carbon capture will be fully accepted, which would help Solvang pool resources between vessels and maximize the climate impact," says Ask.

From theory to verification

A key regulatory challenge relates to lifecycle accounting, understating or excluding well-to-tank emissions for fossil fuels.

"We expect this to change," says Ask. "International regulation has a long track record of adapting to technological and scientific reality. All current evidence points at carbon capture as necessary for decarbonization."

The implementation of FuelEU into Norwegian jurisdiction illustrates the complexity of this transition.

"It is a demanding and time-consuming process," Ask explains. "We are working closely with authorities to have them receive our flexible and verifiable data sets. While progress is gradual, we remain optimistic ahead of 2026."

Regulations overview

From Solvang's perspective, three EU instruments form the immediate regulatory backdrop:

- **EU Emissions Trading System (EU ETS)** now covers maritime emissions, requiring shipping companies to surrender emission allowances for voyages involving EU ports.
- **FuelEU Maritime** introduces a well-to-wake greenhouse gas intensity requirement, expanding the scope beyond CO₂ to include methane and NO_x, while recognizing onboard energy generation and emission reduction measures.
- **The Energy Taxation Directive (ETD)** is expected to introduce fuel taxation for intra-EU voyages, while temporarily exempting alternative fuels to support early adoption.

Disclosures

GRI 102-4

GHG emissions reduction targets and progress

Targets: Absolute and intensity-based
Scopes covered: Scope 1
Base year: 2009
Target years: 2030 and 2050
Alignment: IMO CII / AER framework
Progress: - AER reduction since 2009: 37%
 - EEOI reduction since 2009: 49%
 - Fleet fully CII-compliant toward 2030 under current assumptions

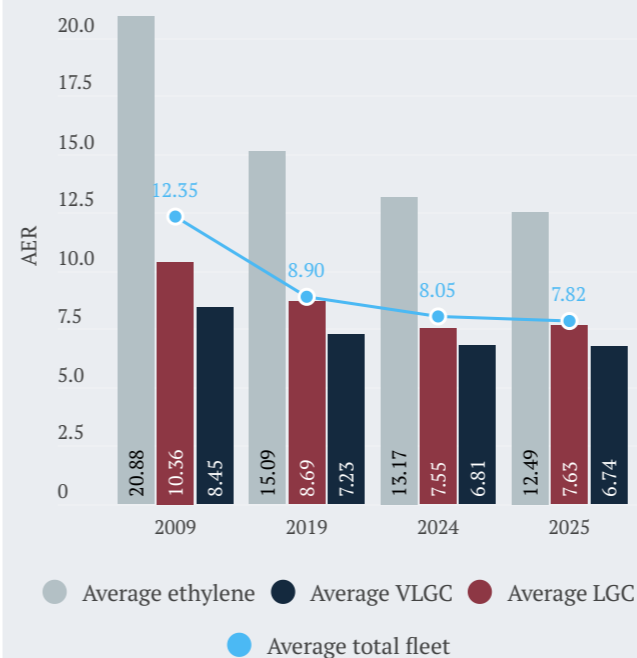
GRI 102-5

Scope 1 GHG emissions

Item	Disclosure
Emission sources:	Vessels only
Fuels:	HFO and MGO
Total Scope 1 emissions:	511,184 tonnes CO ₂
Methodology:	Emission factor HFO: 3.114 t-CO ₂ /t-fuel Emission factor MGO: 3.245 t-CO ₂ /t-fuel

Annual Efficiency Ratio development (AER)

37 % fleet reduction since 2009



GRI 102-6

Scope 2 GHG emissions

- Not applicable
- Solvang has negligible scope 2 emissions

GRI 102-7

Scope 3 GHG emissions

- Scope 3 assessment under development
- Categories, data sources and limitations to be disclosed in future reporting

GRI 102-8

GHG emissions intensity

- Metric: tCO₂e / tonne-mile
- Scope: Scope 1
- Trend: Continuous improvement since 2009
- Methodological changes: None

GRI 102-9

GHG removals in the value chain

Item	Disclosure
Removal type	Technological (OCCS)
Location	Own operations
Capture rate	~50 tonnes CO ₂ per day (pilot)
Permanence	Liquefied CO ₂ stored onboard
Reversal risk	Technically negligible; regulatory risk monitored

GRI 102-10

Carbon credits

The organization does not use carbon credits. Emissions are regulated under the EU Emissions Trading System (EU ETS).

AER reduction 2009 - 2025

Total fleet	- 37 %
Ethylene	- 40 %
LGC	- 26 %
VLGC	- 20 %

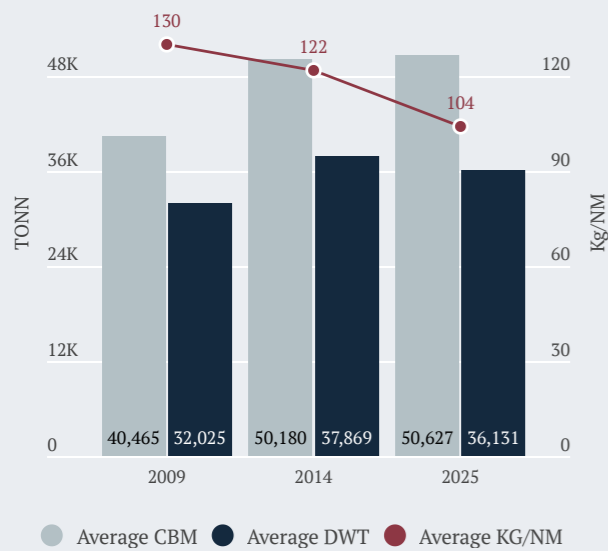
MORE CARGO, LOWER EMISSIONS YEAR-ON-YEAR SINCE 2009

Since 2009, Solvang has reduced GHG emissions per tonne-mile of cargo transported with 49%, and the fuel consumption shows a similar trend.



GHG reduction 2009 - 2025:

Average emission per vessel decrease: 20.3 %
 Cargo capacity increase: 25.1 %
 DWT increase: 12.8 %



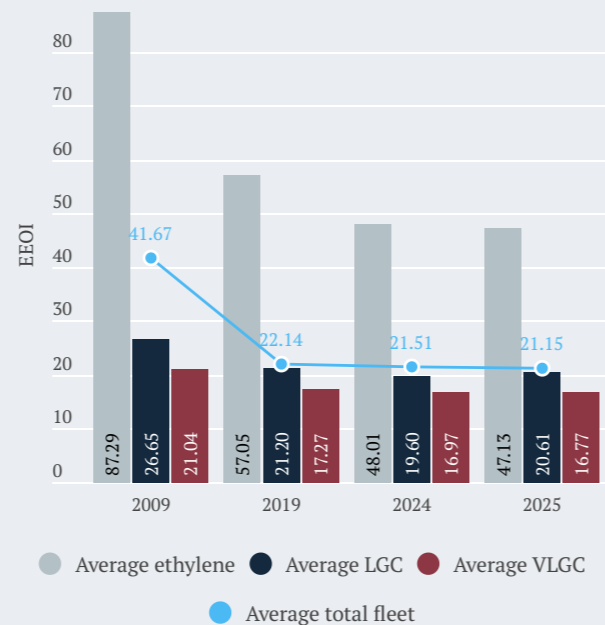
Energy Efficiency Operational Indicator (EEOI)

EEOI measures the fuel consumption per tonne-mile cargo transported. The improvement measured as EEOI is close to 50 %. The introduction of new 88K VLGCs in 2026/27 is expected to further reduce EEOI.

The sale of three older VLGCs since 2021 with a relatively high dead weight/cargo capacity ratio in CBM, contributes to improved AER for the VLGC class, but impacts the average for the fleet as a whole in a negative way.

EEOI reduction 2009 - 2025

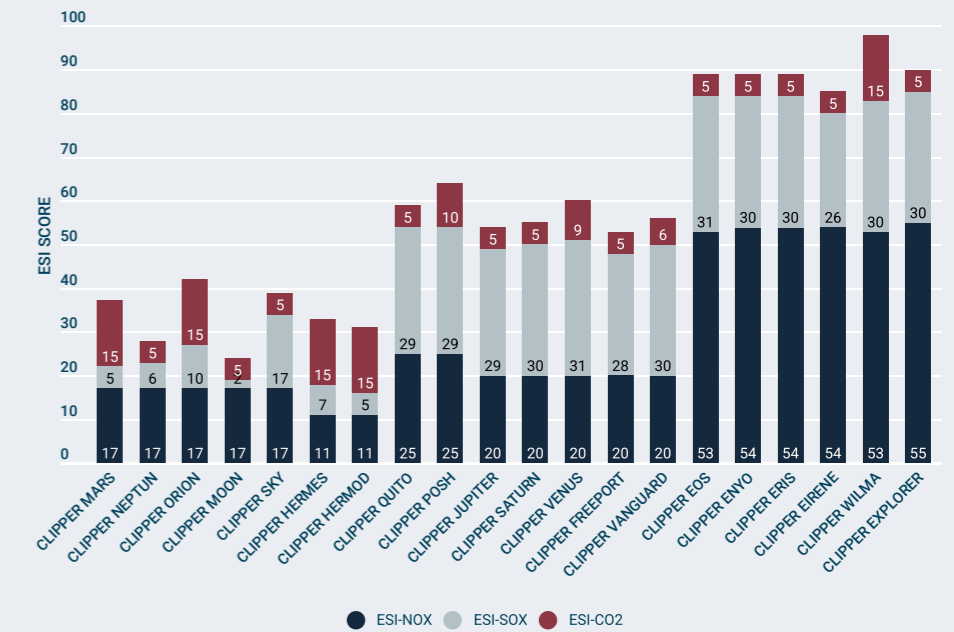
Solvang fleet: - 49%
 Ethylene fleet: - 46%
 LGC fleet: - 23%
 VLGC fleet: - 20%



Environmental Ship Index (ESI) score 2025

Rating of environmental performance. Best possible score is 100 points. This shows that the five newest vessels on the right side perform very well, around 90 points. All vessels with scrubber technology perform well.

ESI identifies seagoing ships which perform better at reducing air emissions than required by current IMO emission standards.



Waste

Fleet total 2025	cbm
Plastics	129.4
Food wastes	6.5
Domestic waste	296.7
Cooking oil	0.8
Incinerator ashes	10.5
Operational wastes	142.6
E-waste	6.9

Sludge

Fleet total 2025	cbm
Sludge produced	4,013
Sludge incinerated	1,227
Watercontent evaporated	1,164
Sludge disposed	1,622

Our vessels' energy consumption 2025

Fuel type	Tonnes	Sulfur content	Energy per tonne fuel [MJ/kg]	Energy [MJ]
MGO	12 405	0.057 %	42.7	529,688,034
VLSFO	44 029	0.410 %	41.0	1,805,207,040
HFO unscrubbed/scrubbed	107 575	2.767 / 0.141 %	40.2	4,324,497,875
Total	164 009	0.210 %	Total energy consumption:	6,659,392,949

Sulfur

Efficiency of scrubber SO₂ removal from exhaust

	Scrubber	No scrubber
Total SO _x emissions [tonnes]	343.3	424.8
Avg SO _x emissions [tonne per vessel]	28.6	42.5
Total SO _x emissions per distance [g/nm*]	353.3	916.1
Average sulfur content in fuel	0.141 %	0.410 %

Since 2009, Solvang has reduced its EEOI by 49%, and Annual Efficiency Ratio (AER) by 37%, closing in on IMO's 2030 target of 40%.



Climate change mitigation

NAVIGATING UNSETTLED WATERS

There is no map beyond established routes, which is why Solvang's Clipper Future programme keeps open different pathways through the energy transition.

SHORT-, MEDIUM-, LONG-TERM: Solvang's climate transition plan (GRI 102-1) is addressed through a programme called Clipper Future. On a short-, medium- and long-term horizon, the plan deploys energy efficiency, operational optimization, and scalable technology to ensure full compliance with IMO energy-efficiency regulations. This includes the Carbon Intensity Indicator (CII), but it does not rely on a single future fuel solution. «All vessels are EEXI-recertified, and systematic upgrades across the fleet have delivered substantial improvements in operational efficiency,» says Tor Øyvind Ask, Fleet Director at Solvang.

37-49% GHG efficiency improvement

In a period of fleet expansion and growing cargo capacity, the average emissions per Solvang vessel have decreased by more than 20%. In terms of Annual Efficiency Ratio (AER), the most recent technical and operational modifications have yielded significant improvement. Since 2009, Solvang has reduced its Annual Efficiency Ratio (AER) by approximately 37%, while included cargo efficiency, the reduction is 49%. IMO's 2030 target is 40%.

Well-to-wake reality

Solvang recognizes that well-to-wake emissions limit the potential of conventional fuel optimization alone. As zero-carbon fuels remain limited in supply and energy-intensive to process, Solvang together with Wärtsilä has developed onboard carbon capture and storage (OCCS) into full-scale maritime application. The pilot OCCS facility on Clipper Eris integrates CO₂ capture and storage with NO_x, SO_x and particle filtration, demonstrating full viability as a transition technology. (See page 52).

Looking toward 2050, Solvang's Clipper Future programme projects OCCS-ready newbuildings capable of operating on whichever GHG-neutral fuels become available. Rather than committing prematurely to a single fuel pathway, Solvang prioritizes technological flexibility, ensuring that vessels delivered today can remain compliant and competitive throughout their operational lifetime.

Double energy efficiency winner

For the second year in a row, Clipper Eirene sailed in first for the Energy Efficiency Award in Solvang.

«Clipper Eirene's excellent scores gave her a narrow lead this time, just ahead of Clipper Posh in second place, Clipper Eris in third, and Clipper Hermes with a strong fourth-place,» says Irene Ringen, Sustainability and Performance Engineer and Solvang's head of jury in the Energy Efficiency Award.

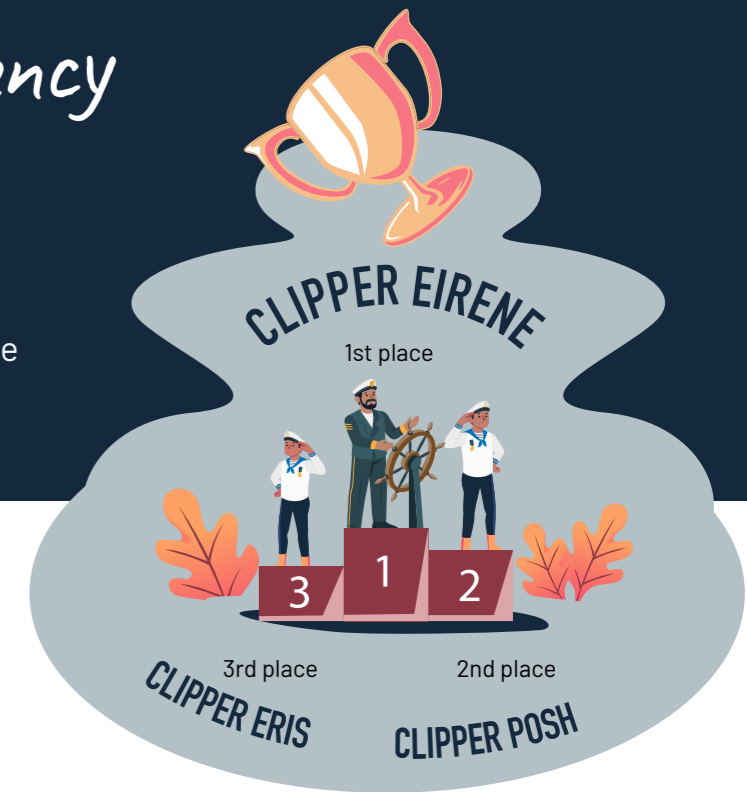
The competition rates all Solvang's vessels and crews by their AER (Annual Efficiency Ratio CO₂ per tonne-mile) results – plus their annual SEEMP posters (ship energy efficiency management plan) – and finally the self-evaluation carried out by the crew at year-end.

«We are very impressed by the crews' awareness of energy efficiency on all vessels. They manage to plan ambitiously yet realistic, to connect AER with operations. Then they make all factors play together to achieve their goals. Truly a crew to be proud of!» Irene Ringen says.

General improvement

In 2025, almost all of Solvang's vessels went up a notch in the Energy Efficiency Award's point system, compared to previous years. This means they have achieved better performance in terms of seamanship, operation and proficiency. These are the branches of the competition:

- Route planning
- Weather navigation
- Vessel trim
- Engine operations
- Engine maintenance/performance
- Power management



Energy Efficiency Award 2025

The point scores

SEEMP

The SEEMP poster is updated annually. Each vessel gets a SEEMP score between 1 and 5, where 5 shows strong efforts and highly relevant plans for each department: Bridge/deck, engine, and galley. In addition, the crews deliver a self-assessment report on their own efforts and performance, how the AER was monitored, and what they can improve the next year. They get a score from 1 to 5.

AER performance

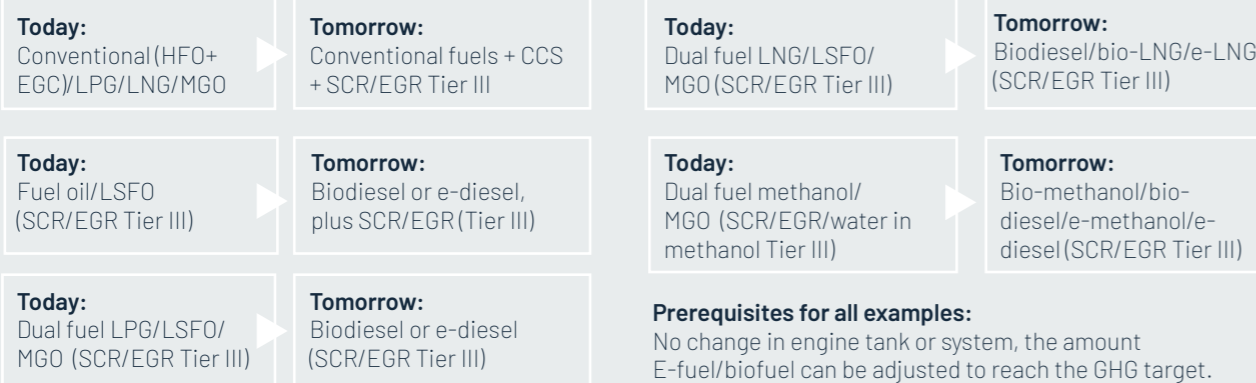
The official AER value/rating for 2025 is compared to 2024. Additionally, an AER at sea is calculated to compensate for idle time, which is unrelated to the crew performance. Other parameters include fuel consumption per 24 hours for all machineries, vessel speed, time at sea, time in ballast conditions, as well as time since last docking. The results yield a score from 1 to 5.

CLIPPER FUTURE: 2030-2050

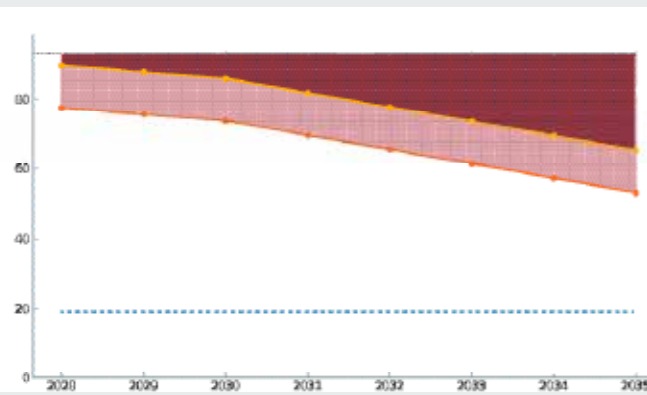
Solvang's medium and long-term climate transition plan.



FUTURE FUEL SCENARIOS



GFI target levels

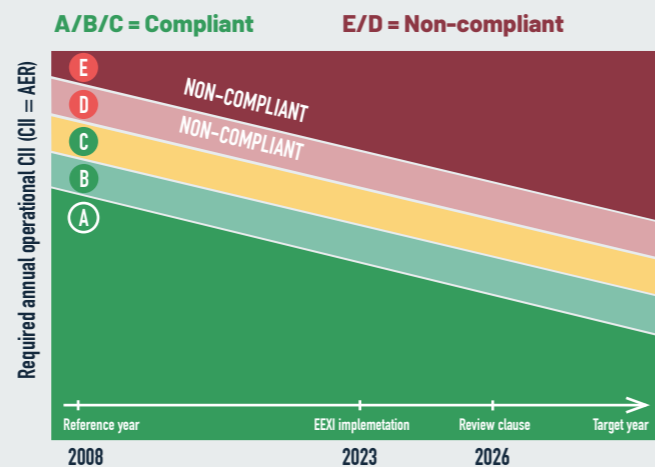


Tier 2 deficit can be covered by Remedial Units (RUs), at USD 380 per tonne CO2 eq.*

Tier 1 deficit can be covered by Remedial Units (RUs) at USD 100 per tonne CO2 eq.*

* Fixed price until 2030. Before 2028, IMO will present a price calculation procedure for prices after 2031.

CII rating (AER compliance)



Mid-term plan: Target 2030*

Full AER/CII compliance for all vessels

Ethylene fleet: With 2% AER reduction per year for E-class and modified H-class, the vessels will keep their B rates in 2026 and continue on a C rate up to 2030.

LGC fleet: With 2% AER reduction from 2026-2030, based on existing LGC modifications and continued pattern of operational improvement, the LGC fleet will be in IMO compliance in 2030.

VLGC fleet: Assuming continuous AER reduction from 2026-2030, the fleet average required in 2030 should be within requirement levels. Due to CII requirements, not the EEXI certification, speed for some of the vessels in 2030 will be limited to achieve compliance.

GFI target level (CO2 fuel intensity)

Depends on availability of CCS and biofuel.

Long-term plan: Target 2050

New fuel regime

Solvang's long-serving approach to conventional fuels in a well-to-wake perspective, will eventually be replaced by zero-carbon fuels or OCCS. Availability and elevated price issues will need to be dealt with.

Clipper Future design

Solvang projects 100% GHG reduction by 2050 (from 2008) and 50% increased fuel efficiency in a mixed scenario of CCS and e-fuel/biofuel. All vessels will be able to modify operations for GHG-neutral fuels. This adds to Solvang ECO design, including optimization of hull lines, cargo intake, cruising range, propeller/rudder design, heat recovery, optimal engine load a.o. Radical new technologies like wind assistance or air lubrication of the hull should be considered in due time.

Electro-fuel

Artificial fuel processed from air, water, and renewable electricity. According to a recent study renewable electricity from clean sources will be limited for the next decades. The current capacity is not comparable to the amounts of alternative fuel needed to supply deep sea shipping on any significant scale.

Biofuel

Biofuel is the only alternative able to compete effectively with a fully exhaust-cleaned fossil counterpart, combined with CCS. Sufficient availability will be defining for the future fuel scenario in shipping.

OCCS

By 2050, Solvang holds necessary experience from onboard carbon capture and storage to effectively support world-wide use. In combination with biofuel and/or electrofuel with CO2 permanently kept out of greenhouse gas systems, GHG output could turn negative.

Regulations prospect

The industry expects tighter regulations on emissions other than CO2, particularly SOx, NOx, CO, THC, and particles. Future regulations will depend on trade-offs between fuel, engine and cleaning technology. There will be no fully clean fuel in a well-to-wake perspective, because all propellants require a form of processing. Also "clean fuel" will need cleaning.

Negative GHG scenarios

By 2050, Solvang could potentially combine biofuel operation with OCCS capturing 70+ percent of CO2 emissions, resulting in a neutral GHG output. In a 100% biofuel operation scenario, plus OCCS, the GHG output will be negative by the carbon capture tonne-for-tonne captured and stored.

Recycled carbon scenario: OCCS + E-fuel

If renewable or nuclear-based electricity is used to produce e-fuel with recycled carbon, the cost might be close to 50% of e-diesel produced by DAC (direct air capture/biogenic CO2).

Carbon offset

If GHG emissions cannot be fully eliminated, they can be offset by emission reduction projects. An exchange of CO2 quotas is currently active, trading carbon cuts to a lower price than using alternative fuels.

* Depending on how IMO's new GHG regulations will play out, if finally adopted, both targets and limit values for all vessels would likely have to be re-calculated. Changes and amendments can be expected.

Setting a new ECO LPG standard

Vitali Kisliuk is Solvang's site-manager at Hyundai's shipyard in Korea. With a captain's determination he prepares the seven VLGC newbuilds to rule the waves of ECO gas carriers.



"Commanding Solvang's VLGC carriers from the bridge gives you a clear opinion about their construction – how they can be improved," says Captain Vitali Kisliuk. The 54-year old captain has set foot firmly on land in Busan, Korea – far out of his comfort zone – to manage the mammoth Panamax VLGC newbuilding programme.

"I was proud when the Company asked me as a long-sailing captain to assume site command for the construction of our new vessels. After sailing for such a long time, this is a chance to develop myself and test my limits in a new way," Vitali says.

Despite the huge workload overseeing seven newbuilds, Vitali finds time to experience his new surroundings. He is happy that his wife Tatsiana decided to join him during his whole stay in Korea.

"She stands by my side, and together we enjoy Korean culture and the community with local people. We use this opportunity to practice for a future after work," Vitali says, smiling.

Mission impossible?

The newbuilds are among the largest Panamax VLGC designs currently under construction. At the same time, the design contains more environmental and emissions-control provisions than previous generations.

"How is it possible to have both record cargo capacity and still pass the Panama locks with all that extra equipment?"

"You know, thanks to the optimized hull form, the vessel will be able to transit the old Panama Canal locks at around a 12.04-meter TFW draft when fully loaded with about 50,000 MT of propane cargo, provided bunkers are adjusted accordingly. This is before installation of the full

OCCS facility. Once OCCS is installed, the draft increases at full cargo load, meaning the vessel will still be able to transit the new Panama Canal locks and retain access to most terminals," Vitali explains.

The forefront of R&D

It doesn't require a long conversation to get a sense of the Captain's determination. A stubbornness which would carry through any storm – and probably did so a few times. Now he is tasked with creating a fleet of ECO gas carriers at the forefront of global research and development. "OCCS-ready is a really bold move from Solvang, putting us at the front of the global decarbonization game. At the same time, we reserve the option not to deploy this specific technology in operation," Vitali says.

Adding OCCS-ready to the newbuilds means erecting a massive chimney at the aft, with space provisions for future exhaust treatment and CO2 capture equipment. In addition, the front deck is heavily reinforced to support the weight of future CO2 storage tanks. Which also requires an extra accommodation deck in order to lift the bridge above the new sight line over the CO2 tanks. All this is before we start talking about the most difficult part of Captain Vitali's portfolio.

"The engine room – you simply can't understand it from a 3D model – not properly. You MUST be there yourself with the site supervisors during construction, to make sure people can access all that equipment inside the dense engine room," Vitali says.

The unified approach

The international focus on carbon capture has made the VLGC newbuilding team perform at their very best, according to the site-manager.

"At the yard we have a team of professionals who represent authority in their individual fields. When we collect these capabilities, Solvang acquires the ability to be a first mover in deploying new technology at scale," Vitali says. When something needs to be changed, scrapped or added during the vessel construction, Vitali and his team use a unified approach to the yard. Firstly, the site supervisor calls out some issue, then a quality manager checks it out. Next, the two draft a non-conformity report which is an escalation to the site-manager's level. From there, the issue goes on unified to the yard for a decision and follow-up change.

"We solve most problems as we go, but certain issues escalate to project manager Kai Sirevåg at the head office, or even to the level of Fleet Director Tor Øyvind Ask. They hold the vision of the whole newbuilding complex and the total investment for the future," Vitali says.

Efficiency from bow to rudder

In addition to securing emission cleaning and all-over quality, Captain Vitali works to improve the operational efficiency of the VLGC newbuilds.

"Solvang's existing panmax ECO carriers already have the world's most efficient design, how can you surpass them with the newbuilds?"

"By improving the thrust effect and lowering the hull resistance further. We have redesigned the bow, which influences the flow structure along the entire hull. Then, at the aft, we add small fins to modify the flow through the Mewis Duct into the propeller. Finally, the rudder is optimized for minimum resistance in relation to steering impulse," Vitali says.

"Will this be sufficient to win the future AER race?"

"No, in addition we have picked the best coating available, and we pay extra attention to the application process. The water demarcation line between the two different coatings is strictly observed for cross-contamination. We fiercely control temperature, humidity and drying time. Our own team of paint supervisors are the best in the market," Vitali says.

Play with open hands

When climate changes or international politics are beyond any single company's or person's influence – there is always something we can do, according to Vitali.

"My advice to young professionals is to be open and honest and tell the truth. If you play with open hands, other people will recognize that and help you. Start by being responsible to yourself and keep your word. When you will be capable of doing what you say, then you will be given responsibilities accordingly," states Vitali.



I was proud when the Company asked me as a long-sailing captain to assume site command for the construction of our new vessels

Vitali Kisliuk, Site-manager in South Korea





Deepsea ammonia cargo holds hope for a cleaner future

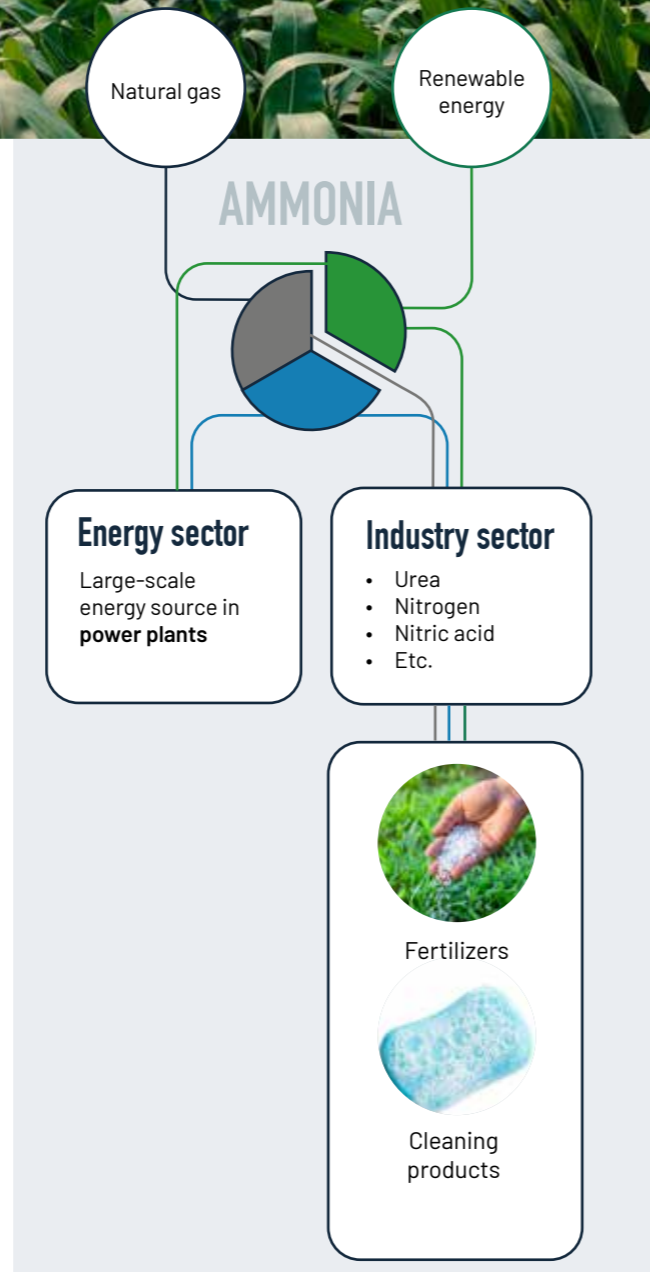
Ammonia is one of the most important building blocks of modern society. Few chemicals have had a comparable impact on human development. Without ammonia, global food systems as we know them would not exist.

Each year, around 80% of the nearly 200 million tonnes of ammonia produced around the globe is used in fertilizers. This enables food production for billions of people. Nitrogen is essential for plant growth, yet modern agriculture rapidly depletes soil nutrients. Ammonia-based fertilizers replenish these nutrients efficiently, sustaining crop yields and improving the nutritional quality of food by supporting trace elements such as zinc and selenium.

Significant global carrier

For ammonia to fulfil its role in agriculture and industry, it must move safely and reliably between continents. Ammonia is toxic, transported under pressure and refrigeration, and demands specialized vessels, systems and competence. With no margin for error, Solvang's approach is layered safety and continuous improvement:

- Purpose-built gas carriers with ammonia systems
- Redundant monitoring, alarms and emergency response
- Specialized ammonia handling crews
- Strict procedures, tight coordination with terminal and charterers



Over the last 10-15 years, Solvang has transported on average nearly 10% of all oceangoing ammonia cargo worldwide, placing the company among the world's most significant carriers.

Transpacific corridor

Global ammonia supply is unevenly distributed and not aligned with a growing demand, which shifts rapidly between regions due to ammonia's emerging applications within the energy transition, as a hydrogen carrier or as a future zero-carbon fuel.

Through various preparations and arrangements, Solvang positions the company to be able to serve any emerging demand of ammonia in East Asia to be supplied by production capacity in North America, opening a possible future trade from the US to Japan.

Ammonia types

The dominant production process for ammonia is **grey ammonia processing**, which uses conventional natural gas, with a significant carbon footprint.

Blue ammonia is produced from natural gas, but in combination with carbon capture and storage, or other technology removing GHG emissions from the production.

The third category of **green ammonia** is produced with renewable electricity, providing ammonia with near-zero lifecycle emissions.

- Global proportion of grey ammonia: >98%
- Global proportion of blue ammonia: ~1%
- Global proportion of green ammonia: <1%

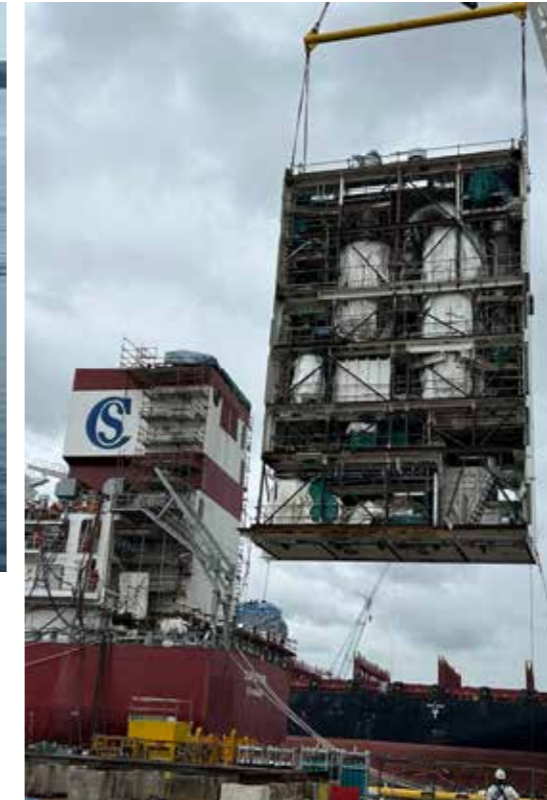
80% of the 180 million tonnes of global ammonia produced is used in fertilizers. This enables food production for billions of people.

Ammonia - key global figures

Indicator	Approximate value
Annual global ammonia production	~200 million tonnes
Share used for fertilizers	~80%
Share of global food production depending on ammonia fertilizers	50%
Solvang's share of global ammonia transport by sea, historically on average	10%
Main producing regions:	Asia, Middle East, North America
Emerging growth drivers:	Energy transition, hydrogen carrier, zero-carbon fuels



Scan for more on solvangship.no



Facts about carbon capture

- The global Carbon Capture, Utilization and Storage (CCUS) market is **growing at an estimated 18–25%** annually, expanding from under USD 6 billion in 2025 to more than USD 17 billion by 2030.
- Some outlooks project CO2 utilization revenues exceeding USD 200 billion by 2045.
- Today, approximately 75% of captured CO2 is used for enhanced oil recovery (EOR).
- Strong growth is expected in CO2-based fuels, chemicals and construction materials.
- Post-combustion capture holds roughly 40% market share in 2025, driven by its suitability for retrofitting existing assets.

A SHIFT IN THE PERCEPTION OF CO2 CAPTURE

Clipper Eris enters her second year in full carbon capture mode as global shipping begins to recognize onboard carbon capture as a viable decarbonization pathway.

When Solvang launched its full-scale onboard carbon capture pilot on Clipper Eris in early 2025, the ambition extended well beyond proving technical feasibility. The objective was to demonstrate that carbon capture at sea can function as part of a competitive, end-to-end value chain.

“As an expert in gas handling, Solvang has a unique capability to capture CO2 from exhaust gases and convert it into high-grade liquefied CO2 stored safely on deck,” says Martha Nord-Varhaug, Business Developer for OCCS at Solvang. “But to reach true proof of concept, the entire value chain must be commercially viable. That requires parallel development of onshore infrastructure.” Since the pilot entered operation, Solvang has observed a clear shift in how onboard carbon capture is perceived—particularly outside Norway.

“Internationally, more stakeholders now acknowledge that green fuels alone will not be sufficient to decarbonize

deep-sea shipping at scale,” says Tor Øyvind Ask, Fleet Director at Solvang.

“That realization is changing the conversation.”

From fuel debates to system solutions

As a consequence, many shipowners are recalibrating their strategies. It is correct that hydrogen, ammonia, methanol and bio-fuel remain part of the long-term transition discourse. At the same time, carbon capture is increasingly identified as the decisive component for emissions reductions in existing fleets.

Solvang’s approach combines several levers: Exhaust gas cleaning for SOx, NOx and particulates, operational efficiency measures, and onboard carbon capture. Together, these elements form an integrated system rather than a single-point solution.

Solvang already sees strong interest among port operators, exemplified by the development of CO2 storage capacity in hubs like Rotterdam.

“Once carbon capture is accepted as both a sustainable and economically realistic option, the rest of the value chain begins to move,” Nord-Varhaug explains.

Capturing 50 tonnes per day

Clipper Eris is capable of storing up to 700 tonnes of CO2 on deck. This equals 14 days of sailing with 75% capture rate.

“The limitation of the Eris facility is 50 tonnes per day in regular operation, due to refrigeration and compressor setup,” says Mr. Ask.

The potential climate impact is substantial. Applying the current capture rates from Clipper Eris to a VLGC would roughly double the volumes of captured CO2, while changing from transatlantic to worldwide voyages would double again the need for onboard CO2 storage volume. All seven of Solvang’s Panamax VLGC newbuildings will be OCCS-ready.

“When our Clipper Eris pilot is scaled to a larger deepsea fleet, the climate effects become considerable,” Mr. Ask concludes. “Especially if more shipowners choose to adopt the technology.”

Framework and regulations

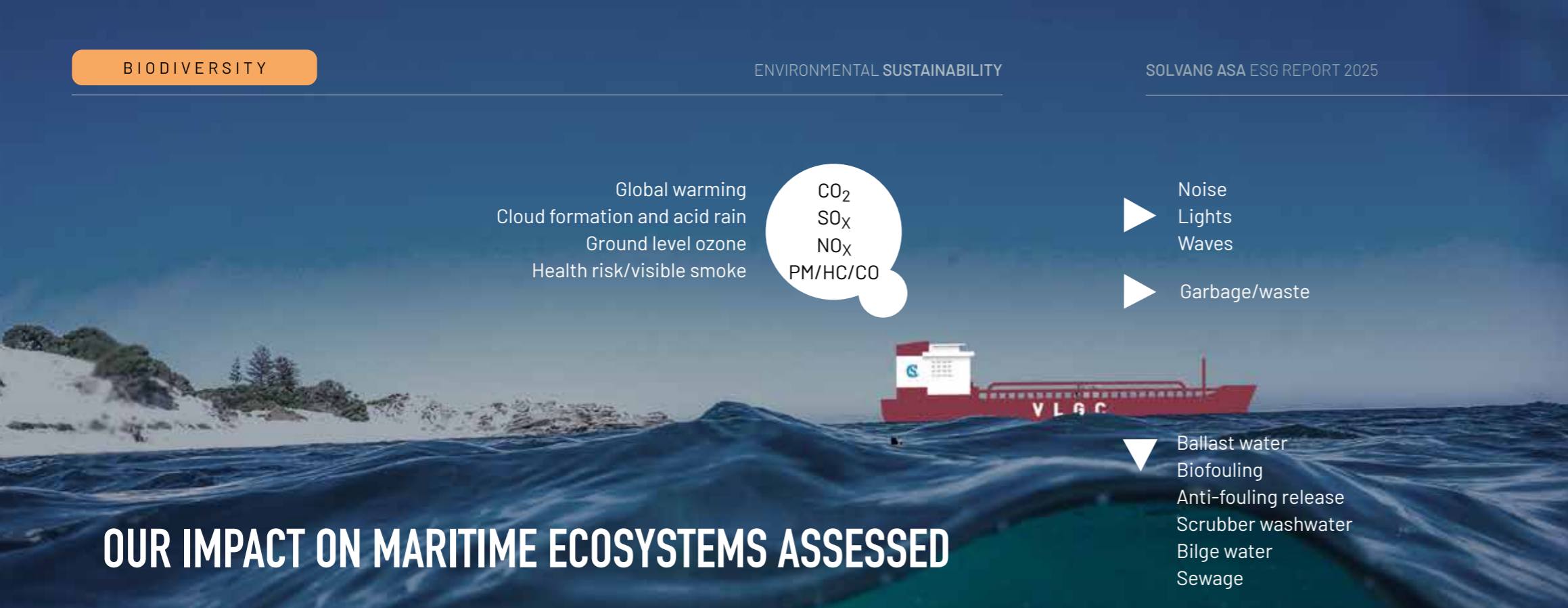
In October 2025, the International Maritime Organization postponed the adoption of its net-zero framework by one year, delaying the introduction of global carbon pricing and fuel intensity measures (see page 42).

“We hope the delay will provide an opportunity to approach some of the challenges in the carbon capture value chain,” Mr. Ask says. “The regulatory landscape is changing rapidly, and the industry needs time to adapt. Expanding storage capacity and developing robust offloading infrastructure are critical enablers.”

“To reach true proof of concept, the entire value chain must be commercially viable. That requires parallel development of onshore infrastructure

Martha Nord-Varhaug, Business Developer for OCCS at Solvang





OUR IMPACT ON MARITIME ECOSYSTEMS ASSESSED

Solvang deploys comprehensive measures to protect the marine environment, in compliance with GRI 101: Biodiversity, and the UN SDG 14 – Life below water.

Solvang recognizes that marine ecosystems are under increasing pressure from climate change and human activity. In response, and in line with SDG 14's call for coordinated global action to conserve and sustainably use the oceans, Solvang focuses on avoiding and minimizing operational impacts rather than offsetting damage.

Seawater scrubber

Solvang's seawater scrubber reduces sulphur oxide emissions by converting them into sea salt using naturally occurring calcium carbonate. The efficiency exceeds 98 percent, and there are no harmful by-products. In 2024, Solvang submitted five years of wash water sampling data to the IMO, verified by independent research institutions. The results showed no pollution for 41 components, as well as pH and turbidity. This indicates that Solvang's scrubber operations do not adversely affect surrounding seawater.

Global warming
Cloud formation and acid rain
Ground level ozone
Health risk/visible smoke

CO₂
SO_x
NO_x
PM/HC/CO

Noise
Lights
Waves
Garbage/waste

Ballast water
Biofouling
Anti-fouling release
Scrubber washwater
Bilge water
Sewage

Ballast water treatment

Ballast water is recognized as a major risk for transferring invasive alien species, which may disrupt local marine ecosystems. To mitigate this risk, Solvang applies an advanced ballast treatment system which eliminates microorganisms prior to discharging the ballast water.

Biofouling management

Marine organisms may attach to hulls and transfer to new environments where they invade local ecosystems. To reduce this risk, Solvang applies high-performance antifouling coatings and continuously monitors hull resistance to marine growth. Marine growth is removed by hull cleaning at the earliest opportunity, reducing both biodiversity risks and fuel consumption penalties.

TBT-free coatings

Solvang collaborates with coating suppliers to ensure that antifouling systems maintain both environmental performance and operational efficiency throughout each docking cycle. All vessels have applied coatings free of organotin compounds such as tributyltin (TBT), due to ban under IMO's International Convention on the Control of Harmful Anti-Fouling Systems on Ships.

Garbage and waste handling

In accordance with MARPOL requirements, all Solvang vessels have a garbage management plan. Vessels handle and segregate waste for delivery to shore facilities, permitted discharge to sea, or controlled onboard incineration. Residues are subsequently delivered ashore for approved processing.

Bilge water and sewage management

All bilge water onboard Solvang vessels is processed through oil-water separators, with each discharge recorded in the oil record book in compliance with MARPOL Annex I. Waste oil and sludge are either

Discussions

Open-loop EGCS wash water

Since 2024, Solvang has been part of an ongoing discussion about negative impacts from open-loop EGCS (seawater scrubber) in port and special areas. Solvang has verified that emissions from 13 vessels over five years have been under threshold limits for all substances in question. The data sets and methods have been validated by third-party scientists and submitted to IMO for publication.

For up-to-date info, visit Solvang's website:



incinerated onboard or delivered to approved shore-based facilities.

Sewage is managed in accordance with MARPOL Annex IV. All vessels maintain holding tanks and treatment systems by international standards.

Oil leakage prevention

The risk of oil leakage to sea is strictly limited to thrusters only, as the propeller shaft has air seal systems. Maintenance schedules are strictly followed, oil consumption is closely monitored, and biodegradable oils are used wherever approved by equipment manufacturers.

Limitations and ecosystem services

Solvang does not operate fixed sites or exercise control over marine ecosystems. Consequently, Solvang does not directly measure changes in ecosystem conditions. Nevertheless, by preventing pollution and transfer of invasive species, Solvang contributes to marine ecosystem protection through water quality regulation and habitat integrity.

GRI references
101-1 Policies to halt and reverse biodiversity loss: Policies aligned with IMO Marpol Annex VI, UN SDGs 14 & 16, and ISO 14001, for own operations and suppliers. KPIs includes minimizing discharges and zero spill. Assessing and monitoring of sea effluents. Ballast treatment and biofouling plans; EGC open-loop washwater treatment and monitoring.
101-2 Management of biodiversity impacts: Solvang's Environmental Management System (ISO 14001), Ballast Water Treatment System, Biofouling Management Plan, discharge monitoring, and regular risk assessments. Biodiversity part of ESG strategy and risk management via Ballast Water Management Policy. Biodiversity is not explicitly considered in procurement. Fleet management is the responsible function. No trade-offs identified.

GRI references
101-4 Identification of biodiversity impacts: Scrubber washwater and ballast water analyses (for toxics/heavy metals), and supplier reporting. Assessment of exhaust gas cleaning, WESP, and waste disposal. Prioritization uses volume, sensitivity, and operational geography. No key biodiversity impacts or data limitations/gaps identified.
101-6 Direct drivers of biodiversity loss: Marine pollution and invasive species (via ballast water/hull biofouling). No indirect drivers or high-risk suppliers identified. Mitigation measures involve ballast water sterilization and hull cleaning.

GRI references
301-1 Materials used by weight or volume: Lubricants, bunker fuel, and paint are main materials. 100% virgin materials. Total quantity not disclosed. Percentage of recycled input is n/a. Data source and methodology used is internal reporting.
303-2 Management of water discharge-related impacts: Minimum standards for water discharges based on IMO Marpol Annex I, II, IV, or VI. No local regulations or receiving water bodies. Effluent treatment and monitoring according to regulation, e.g. Ballast Water Management, EGC discharge monitoring.
306-1 Waste generation and significant waste-related impacts: Own operations (OP). Waste types managed according to regulation, and after handling, no significant impacts are expected. Potential impacts identified are limited to CO2 emissions during waste incineration.

GRI references
306-2 Management of significant waste-related impacts: Actions include offshore incineration and application of garbage management plan for each vessel. Waste handled by third parties follows the waste management plan, as do processes for waste data collection and monitoring, which also includes logging of all waste.
306-3 Waste generated (cbm): Plastics 129.4, food wastes 6.5, domestic waste 296.7, cooking oil 0.8, incinerator ashes 10.5, operational wastes 142.6, e-waste 6.9.
306-4 Waste diverted from disposal: None.
306-5: Waste directed to disposal: Not specified. Disposal methods include incineration and others, with the breakdown and fraction (hazardous/non-hazardous) not specified. Disposal occurs both on-site and off-site, no contextual explanations for regulatory or infrastructure factors.

At the forefront of development

R&D PROJECTS 2025

Solutions and knowledge don't come easy, which is why Solvang widens and deepens our research and development portfolio.

Solvang takes part in research and development (R&D) or innovation activities spanning all our activities, from recruiting crew members to adjusting engines to analyze markets or report ESG performance. Since 2009, Solvang consistently registered all data from our fleet, enabling unique scientific research.

Solvang prescribes a few verticals to build new knowledge:

- The environment requires an holistic approach
- Fuel must be assessed well-to-wake
- Efficiency is quintessential to understand our climate footprint



First onboard CCS world-wide

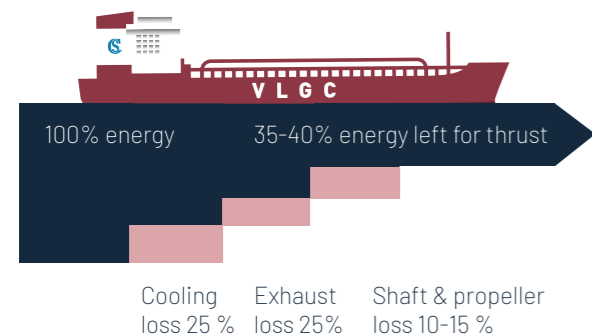
In 2021 Solvang embarked on a voyage with Wärtsilä, a pioneer in marine environmental technology, to remove CO2 directly from the exhaust stream of a ship engine. In the winter of 2025, gas carrier Clipper Eris left Seatrium shipyard in Singapore with an OCCS facility in full operation, capturing more than 90% of the exhaust CO2.

"We have reached the frontier of what's possible with existing technology. Thanks to the Clipper Eris pilot, we learnt how to adjust operations and integrate systems to turn onboard carbon capture into a commercial solution," says Sigurd Jenssen, CEO at Wärtsilä in Moss, Norway.

Read more about the OCCS project:



Fact: Energy loss from fuel to forward movement



WESP: Expecting 95% particle capture

As a way to filter the exhaust stream of fine particulate matter, such as soot, acid mists, organic emissions, tars and heavy metals, Solvang runs wet electrostatic precipitators (WESPs) on five gas carriers. The solution consists of a honeycomb structure within the chimney, producing an electrical field inside each tube, which charges and pulls particles and entrained droplets from the gas flow, attaching them to the inner surfaces of the tubes. These particles are then flushed from the tubes using water, which is collected and cleaned onboard. The system delivered by Wärtsilä has delivered 95% particle removal in lab tests, while live testing awaits in 2026.

Read more about the WESP:



Energy transition research

Solvang is an active partner in the Norwegian R&D centre for Maritime Energy Transition (MarTrans). The centre coordinates research within energy-efficient shipping, onboard energy systems, port infrastructure for green energy, sustainable transition pathways, and the area of "innovation and industrialization". MarTrans runs 8 years from 2024 and has 65 partners working to accelerate the energy transition in shipping.

Read more about MarTrans:



Wind-assisted propulsion

Solvang participates in the International Windship Association, as a consortium member of SINTEF Ocean's WIND project. The project develops simulation tools for accurate analysis of wind-powered ships with aerodynamics, hydrodynamics, propulsion, machinery, control system, and operation. The target is cost reduction and energy efficiency for ship owners, as well as providing ship designers and equipment suppliers with new insights, knowledge and agility to develop high quality designs and products for wind powered ships.

«WIND offers Solvang access to verified objective information, we get to exert influence, we receive attention as a technology user, and our own efforts are made useful to others», says Tor Øyvind Ask, Fleet Director in Solvang.

Read more about KSP WIND:



Engine load optimization

Together with technologists Accelleron and Wärtsilä, Solvang has researched since 2023 for a lower optimal load range by means of engine tuning and turbocharger specifications. While preserving commercial speed, the results show fuel savings of 3-4 percent delivered on the engine, and much higher savings of combined fuel consumption.

Read more about part load optimization:



The propulsion optimization programme

Fins and ducts positioned in front of the propeller and rudder comprise an effective energy-saving part of Solvang's propulsion optimization programme. By straightening and accelerating the hull wake into the propeller and also producing a net forward thrust, the installation saves up to seven percent of the fuel. All except two of Solvang's vessels took part in the programme in 2025.



TARGETS AND METRICS OF ENVIRONMENTAL SUSTAINABILITY

EMISSIONS TO AIR		
2026 target	2025 progress	2025 target
Research project /Pilot OCCS Clipper Eris	Ongoing	Research project /Pilot OCCS Clipper Eris
100 % Compliance with IMO 2020	Done	100 % Compliance with IMO 2020
Average Sulfur in fuel < 0.2%	0.21%	Average Sulfur in fuel < 0.2%
Environment and SEEMP II month in LTV programme	Done	Environment and SEEMP II month in LTV programme
Maintenance according to plan better than 0.35% overdue non-critical jobs	0.221%	Maintenance according to plan better than 0.35% overdue non-critical jobs
Fuel optimization potential better than 0.5%	0.6%	Fuel optimization potential better than 0.5 %
Engine health 9/10	9/10	Engine health 9/10
Continued participation in the research project MarTrans and KSP WIND	Ongoing	Continued participation in the research project MarTrans and KSP WIND
Continue Solvang Energy savings competition	Done, winner published in this report	Continue Solvang Energy savings competition

ENERGY CONSUMPTION		
2026 target	2025 progress	2025 target
Present historical fuel efficiency for the fleet	Done, this report	Present historical fuel efficiency for the fleet
Continuous evaluation of vessel energy consumption against base line	Done	Continuous evaluation of vessel energy consumption against base line
Continuous focus on cargo handling	Done	13 vessels in project Energy Optimization Cargo Handling (Operim++)
Environment and SEEMP as focus aerea 2 months in LTV program	Done	Environment and SEEMP as focus aerea 2 months in LTV program
Dry docking and renewal of high quality antifouling on 3 vessels	Done	Dry docking and renewal of high quality antifouling on 3 vessels
Maintenance according to plan better than 0.35% overdue non-critical jobs	0.221%	Maintenance according to plan better than 0.35% overdue non-critical jobs
Engine health 9/10	9/10	Engine health 9/10
Fuel optimization potential better than 0.5 %	0.6%	Fuel optimization potential better than 0.5 %

LIFE IN SEA AND ON LAND		
2026 target	2025 progress	2025 target
Zero spills to sea	Zero	Zero spills to sea
100% compliance with IMO 2020	Done	100% compliance with IMO 2020
Zero non-compliance with Marpol Annex I and IV	Done	Zero non-compliance with Marpol Annex I and IV
Maintenance according to plan better than 0.35% overdue non-critical jobs	0.221%	Maintenance according to plan better than 0.35% overdue non-critical jobs
Engine health 9/10	9/10	Engine health 9/10
Fuel optimization potential better than 0.5%	0,6%	Fuel optimization potential better than 0.5%



Illustration photo from Clipper Jupiter



SOCIAL



Turning a gap into progress

In 2025, Solvang emerged stronger following a delay between vessel sales and fleet renewal. The turnout is a larger fleet – supported by stronger cohesion, loyalty, and quality among the crew.



Throughout this years-long transition, our main priority has been to safeguard Solvang's core competencies while caring for each individual employee

Kjetil Meling, HR Director

"Patience and foresight is required when preparing for a new phase of growth driven by fleet renewal," says Kjetil Meland, Solvang's HR Director. A few years ago, Solvang started the process of renewing the fleet and selling older vessels, which meant a temporary scale-down of crew capacity in the years up to 2025, when the VLGC Clipper Explorer was added to the fleet. From 2026, Solvang will take delivery of seven new VLGC newbuildings.

"Throughout this years-long transition, our main priority has been to safeguard Solvang's core competencies while caring for each individual employee," Meling says.

Individual solutions

Solvang manages its crewing operations from Manila in the Philippines, Riga in Latvia, as well as Stavanger, where the corporate headquarters also is responsible for onshore staff.

"To keep lay-offs at an absolute minimum, we worked closely with employees to find individual solutions. This included shorter contracts agreed through dialogue, extended leave arrangements, and pension solutions for employees nearing the end of their careers," Meling explains.

Despite flexible arrangements, a limited number of redundancies were unavoidable. In those cases, individual arrangements were made to support the people affected.

Loyalty tested – and confirmed

The number of tailor-made arrangements in 2025 provided Solvang with a new picture of loyalty and commitment across the organization. While employees were free to pursue opportunities outside the company during the

waiting period, the majority chose to stay, even in cases of reduced salary payouts due to less sailing days.

"It requires patience to accept longer promotion timelines, and loyalty to remain with an employer through a period of uncertainty," Meling notes.

Solvang's core values—team spirit, mutual respect, and quality—apply not only to employees, but equally to the company as an employer.

"We deliberately chose not to release personnel simply because capacity was temporarily reduced," Meling says. "Instead, we accepted the cost of bridging the gap. The financial implications were significant, and we are grateful for the owners' long-term commitment and goodwill throughout 2025."

Stronger collaboration going forward

At the end of 2025 Solvang prepared to enter the next phase of its fleet renewal with strengthened confidence. "The experience has boosted collaboration across the organization, and together we have gained a deeper appreciation of how each individual contributes to the whole."

The HR Director summarises the qualities that define a Solvang employee:

"You look beyond your own position and ask what you can contribute to the company. You support and develop those around you, and you take responsibility for leadership whenever the opportunity arises. Ultimately, we seek people who share these human qualities—and who are willing to grow with Solvang."

GRI references

202-1 Ratios of standard entry level wage by gender compared to local minimum wage: Complying with Norwegian law, independent of location or gender. Local statutory minimum wage levels are not disclosed for any location, hence no wage-to-minimum wage ratios disclosed.

202-2 Proportion of senior management hired from the local community: 100% (Stavanger, Oslo, Riga and Manila)

203-1 Infrastructure investments and services supported: Streetlight project, the Philippines.

203-2 Significant indirect economic impacts: i. 80% of wages to seagoing personnel from the Philippines are returned to local communities.

ii. Local job creation and supplier jobs related to newbuildings in South Korea. Local contribution through fleet deployment, eco tech investments, training, and participation in maritime clusters.

2-23a-c/e-f, 2-24, 2-25, 2-26, 2-27, 2-28 Strategies, policies and practices, see solvangship.no/gri

GRI references

401-2 Benefits provided to full-time employees only: None, all employees benefit from life insurance, health care, disability coverage, parental leave, and pension share schemes.

401-3 Parental leave: Parental leave rights for all employees. In 2025, 2 women and 1 man on parental leave, of whom 1 woman still on leave by year-end. Otherwise, 100% return-to-work rate/retention rate.

402-1 Minimum notice periods regarding operational changes: According to specification in the collective bargaining agreement.

- Plan what you do, do what you plan

Bosun Elmer Malbyuo attends to details to improve the bigger picture – one of evolving seamanship, increased safety and more teamwork on board.

For more than three decades, Elmer Malbyuo has carried his seamanship, discipline and warm presence across Solvang's fleet. Now at age 57, the bosun from Mindanao in the Philippines is one of the company's longest-serving seafarers, with 32 years in Solvang.

"I'm grateful and proud to be on board a Solvang ship," Elmer says. "My job is to ensure that every task is done safely and with a positive attitude. I lead the crew—and I make sure everything is done according to procedure."

Actions of teamwork

Elmer remembers being five years old the first time he went ashore fishing. At the age of 22, he joined his first tanker vessel as a cadet. Three years later he stepped on board a Solvang LPG carrier – a decision that would shape the rest of his life.

"I've visited probably more than 20 countries," he says. "But most often, I stay on board during loading and discharging. That is where most of the work is."

The bosun's role is central to safe operations on Solvang's gas carriers, something Elmer explains daily to his team. He describes the vessel operation as a tightly coordinated

team effort, uniting officers, deck crew, engine personnel and galley. Leadership, for Elmer, is about discipline, clarity, and daily follow-up.

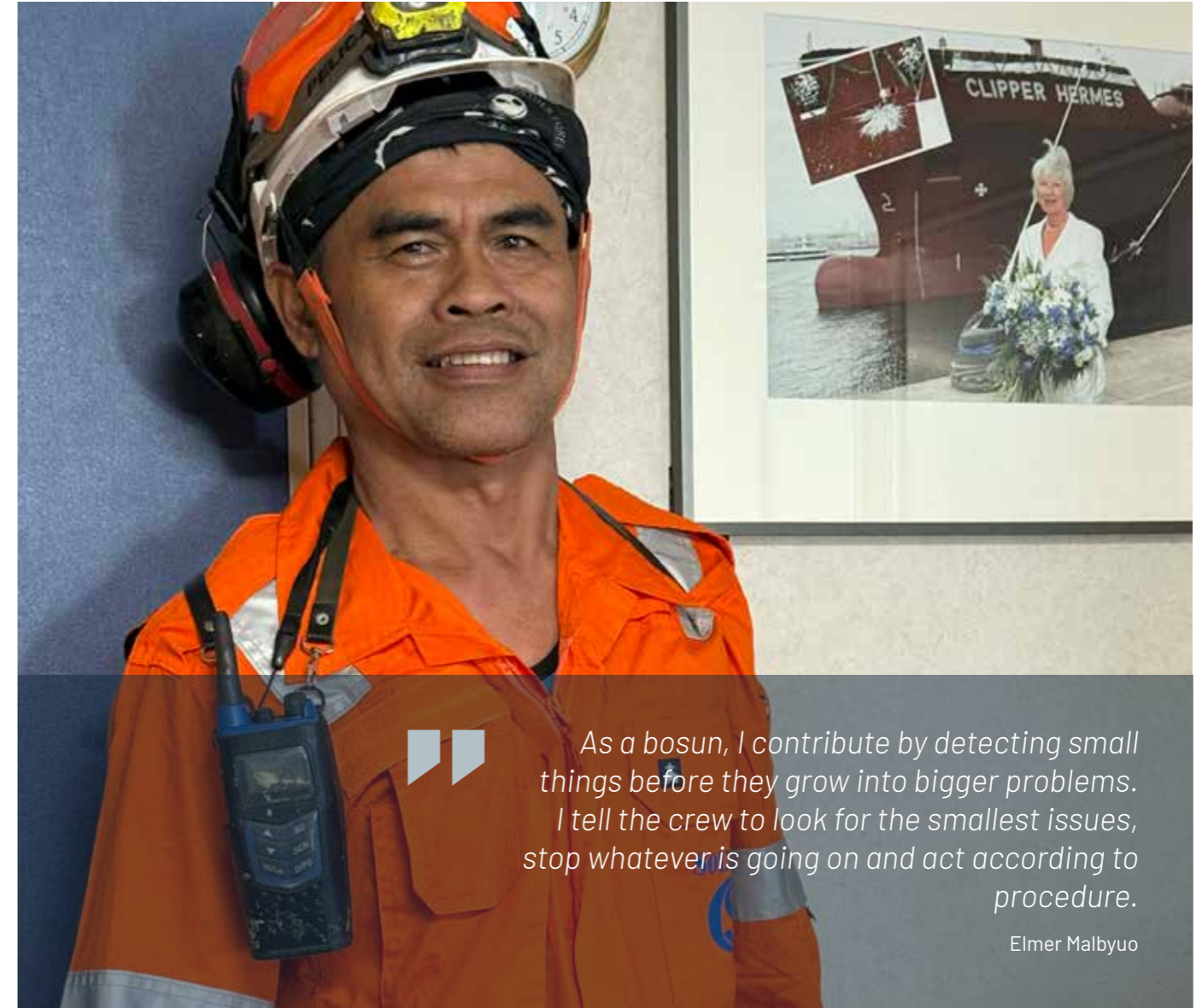
"The morning meeting is important. You have to plan what to do, do what you planned, and record it," Elmer says.

Always follow procedure

In the domain of onboard safety, attention to detail and procedure is mandatory. Elmer follows the safety management system and takes equal ownership of every part of the vessel.

"As a bosun, I contribute by detecting small things before they grow into bigger problems. I tell the crew to look for the smallest issues, stop whatever is going on and act according to procedure," Elmer says.

Proper maintenance, often invisible to an outside observer, ensures that cargo, crew and equipment remain safe across shifting weather conditions and long voyages. The improvements Elmer has seen over his career make him optimistic. "The maintenance system is better than it used to be, ensuring that everything remains in proper condition."



As a bosun, I contribute by detecting small things before they grow into bigger problems. I tell the crew to look for the smallest issues, stop whatever is going on and act according to procedure.

Elmer Malbyuo

Faith, humour and harmony at sea

Long stretches away from home can challenge even experienced crew members, but Elmer knows exactly what to do to stay calm and happy.

"On board we have games, and I socialize with the other crew members. Many of us share a belief in God, and together we arrange services on Sundays and a short morning prayer before work. This helps keep up the good spirits," says Elmer.

He speaks warmly of a crew culture built on respect, and music.

"I am a drummer, guitarist, vocalist, and former choir singer. I keep singing on board the vessel, and my colleagues approve", he says, smiling.

Occupational health and safety

SEEING THE INDIVIDUAL

Solvang's long-standing human resources policy secures participation and individual welfare for every employee working in our organization.

Solvang recognizes a strong connection between physical and mental health, which is related to our core values of mutual respect and team spirit.

«Being accepted for what you are and received into a community of equals – that is good for your mental health and for contributing at work according to your qualifications. Accordingly, Solvang offers mental health training courses – aiming at resilience among seafarers. This is part of our health management plan using various tools both onboard and ashore.» says Kjetil Meling, HR Director at Solvang.

Physical health

Solvang's occupational health services cover all sailing personnel and include emergency treatment and treatment of typical conditions requiring immediate medical attention – 24/7 by professional personnel working on telemedical systems.

Before boarding a Solvang ship, all personnel go through a Norwegian-certified medical check-up as well as pre-medical screening following Filipino routines. Seafarers can opt for an extensive screening, which means a more thorough physical examination supported by personal guidance from medical personnel.

«In addition to check-ups, we offer guidance on a healthy lifestyle. Even when on vacation, you will benefit from health care follow-up.» says Mr. Meling.

OHS participation

In addition to Living the Vision, Solvang welcomes our workers to take part in occupational health and safety (OHS) through a working environment committee and by safety delegates. Solvang holds regular safety meetings onboard vessels, and communicates OHS issues via newsletters and crew meetings.

Health insurance and pension

Solvang's seafarers enjoy deductible-free health insurance from Marine Benefits, which includes the seafarer's family and covers doctor visits, sickness, and hospitalization. Solvang has pension plans for all nationalities not covered by a national pension scheme, depositing a proportion of their yearly wage. Individual plans are made for long-term health, stability and security for Solvang employees and their families.

Worker training

Solvang offers comprehensive OHS training, including topics like hazard identification, chemical handling, emergency preparedness, firefighting and first aid. Training is conducted monthly on board all vessels, conducted by officers and evaluated through group feedback.

«Continuous improvement is our strategy.» says Meling.

GRI references

403-1 Occupational health and safety management system: OHS management system compliant with the ISM Code and certified to ISO 14001:2015, which applies to all vessels and shore-based operations.

403-2 Hazard identification, risk assessment, and incident investigation:

Task-specific risk assessments, management-of-change procedures, and post-operation reviews. Incident reporting and investigation conducted in line with ISM and ISO standards.

403-3 Occupational health services: Offered offshore to all sailing personnel, which secures emergency treatment and treatment of typical conditions requiring immediate medical attention. Quality is ensured by professional service providers, and accessibility is secured 24/7.

GRI references

403-4 Worker participation, consultation, and communication on occupational health and safety:

Workers are represented through a Working Environment Committee, by safety delegates, and by the employee programme Living the Vision (LTV). Solvang holds regular safety meetings onboard vessels. Solvang communication OHS issues via newsletters and crew meetings.

403-5 Worker training on occupational health and safety:

Solvang offers comprehensive OHS training under the Living the Vision programme. Topics include hazard identification, chemical handling, emergency preparedness, firefighting and first aid. Training is conducted monthly on board all vessels, conducted by officers and evaluated through group feedback.

GRI references

403-6 Promotion of worker health: Access is provided to medical care, mental health support, health insurance, and telemedical services. Voluntary wellbeing programmes are available to shore-side employees and their families. Confidentiality is fully respected.

403-7 Prevention and mitigation of OHS impacts in business relationships: OHS requirements are integrated into procurement and contracts for shipyards, dry-dock facilities, and service providers. Controls include audits, on-site monitoring, and corrective actions like contract termination where required.

403-8 Workers covered by an occupational health and safety management system: All employees and worker groups covered [750 persons covered by OHS / 750 persons covered by internally audited system / 750 persons covered by externally audited system.]

GRI references

403-9 Work-related injuries:

Work-related injuries are monitored centrally. Preventive focus on training, inspections and continuous improvement. [Fatalities=0, First-aid case (FAC)=5, Medical Treatment Case (MTC)=2, Restricted Work Case (RWC)=2, Lost Time Incident (LTI)=0, Main types of injury=0, Total Recordable Case Frequency=1.105, Lost Time Incident Frequency (LTIF)=0, Total hours worked = 1.26 Millions.

403-10 Work-related ill health:

Monitored centrally with preventive focus. Fatalities=0, cases of recordable ill health=n/a, main types of ill health=MSD, hearing loss, respiratory conditions. Types of hazards=n/a, Mitigation measures=n/a



The unstoppable learner

Third Officer Dave Patrick Rabaya builds learning into every day on board Clipper Venus — even when planning Christmas at sea.

“The Christmas decoration award isn’t really about competition,” Dave says. “It’s about making life on board feel a bit like home, which is a good challenge.”

At the age of 26, he has found his pace as a sailing officer on board Clipper Venus. Dave already spent more holidays at sea than many seafarers, including two birthdays during his one-year cadetship.

“We were the so-called pandemic cadets, hopefully the first and last of that category.”

Family, celebrations, and strong communities matter deeply to him — whether at home in Cebu, Philippines, or on board a Solvang vessel.

“I am deeply grateful to my mentors on board, and to my family at home — my parents, my brothers, and my partner, who works as a financial advisor and also is my personal advisor. But above all I thank the Lord God Almighty — who gave me the gift of life and called me to be a messenger of peace and goodwill,” says Dave.

More than employees

Dave began his career with Solvang as a cadet on Clipper Orion, progressed to ordinary seaman on Clipper Mars, and later became an officer on Clipper Wilma. Today, he is ranked Third Officer on Clipper Venus.

“Solvang is a remarkable company,” he says. “We are not just employees — we are part of the Solvang family, built on team spirit and mutual respect.”

A multi-year winner of the Solvang Quality Award, Clipper Venus is a perfect fit for Dave’s mindset.

“My personal approach is simple,” he explains. “I build a daily job order that always includes an element of learning something new, whether it’s a theory, a task, or a procedure.”

Sometimes, that means rethinking old habits.

“We even have to unlearn things to learn them again,” Dave says. “New technology and new processes require openness and flexibility. The goal is always to become a

better version of ourselves — and of our vessel. It’s no lie that our lady Venus still looks brand new, more than ten years after leaving the berth,” says Dave.

Preparing for tomorrow

Dave describes a strong culture of trust and care on board, where every crew member is encouraged to grow and realize their individual potential.

“With the support of the Captain and Chief Engineer, anyone can report an issue safely and confidently,” he says. “That trust directly improves both safety and quality.” The environment has motivated Dave to commit fully to his future with Solvang.

“When I told my officers I felt ready to move beyond my role as Third Officer, they immediately encouraged me to take the next step,” he says. “That support meant a lot.”

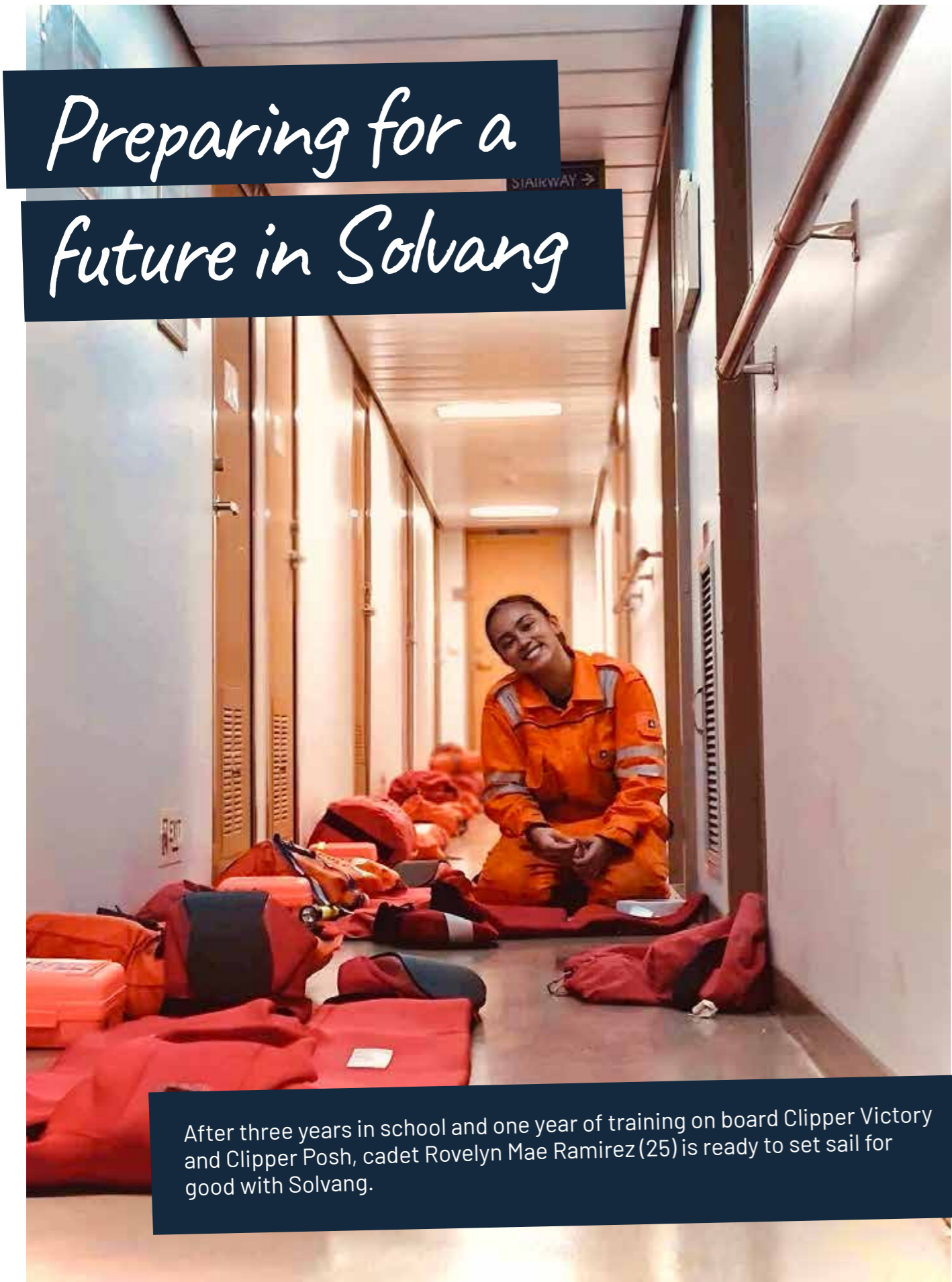
When asked to name an example of a senior crew member other than the Captain and the Chief Engineer, Dave doesn’t hesitate:

“The Flash! That’s what we call our bosun, Elmer Malbyuo. When he receives a task, he engages the crew immediately and gets everything done with full speed and an immense precision. He truly lives up to his nickname,” Dave says.



We were the so-called pandemic cadets, hopefully the first and last of that category

Third Officer Dave Patrick Rabaya



Preparing for a future in Solvang

After three years in school and one year of training on board Clipper Victory and Clipper Posh, cadet Rovelyn Mae Ramirez (25) is ready to set sail for good with Solvang.



I want to inspire more women to work on board Solvang's vessels! It's all about believing in yourself - and earning the trust from your fellow crew. Who knows who will stand tall on the bridge as a captain one day!

Rovelyn Mae Ramirez (25)



The waves of the sea are calling for Rovelyn. The 25 year-old smiling woman from Cebu, Philippines, has just checked out of Solvang's cadet programme in Manila and boarded a plane home for a Christmas break. Now she just waits for a call to show up on Clipper Enyo.

"I almost can't wait to pull on my uniform and start my service as an able seafarer," Rovelyn says. Her training was carried out on Clipper Victory and Clipper Posh. She has yet to acquaint herself with all the modern facilities on board Solvang's top notch E-class vessels. "The E-class has a special star in my book."

Stepping stone to independence

Rovelyn grew up with her aunt and uncle, and her cousin, which she recognizes as a blessing. "I still stay with them when I'm at home, and occasionally I meet my biological parents, brother and sister too," Rovelyn says, smiling. It was her cousin's husband who encouraged her to choose a maritime career back in her school years.

"He already worked in the maritime industry when I was attending high school, and he told the family that I had a potential for seafaring," Rovelyn says. When an agent from Solvang later showed up in her senior high school class, Rovelyn decided to apply for Solvang's cadet program. Being admitted on the first day of tests, she started four years of maritime education and vocational training. Her development was fundamental, both as a maritime professional and as a human.

"I remember hanging out in the dormitory on Christmas eve in 2020, during the covid lockdown, unable to stay

with my beloved family. That experience was a stepping stone into my own life as an independent person," Rovelyn recalls.

The family on board

As a young cadet, Rovelyn relies on experienced colleagues and dedicated leaders on board, to give her the confidence and routines of an able seafarer. "To my colleagues across Solvang's fleet—women and men—I want to say thank you for the teamwork, mentorship, and trust. Let's all keep supporting each other, pushing for excellence, and showing what we can achieve together," Rovelyn says.

To have a good variation of life on board, the young cadet has learnt to fill her spare time with activities: "I love singing! And I practice zumba, an aerobic fitness workout dance which is funny. We have bingo nights, and the crew gather as a community. My female colleagues encourage me to open up and share my views and thoughts, because everything starts with people," Rovelyn says.

When asked about her future, the young cadet reveals bold dreams which all involve Solvang: "My first huge achievement will be when I become an able seafarer early in 2026. After this, I will earn myself with as many new responsibilities as I can, eventually getting to contribute as an officer who others can rely on. And I want to inspire more women to work on board Solvang's vessels! It's all about believing in yourself - and earning the trust from your fellow crew. Who knows who will stand tall on the bridge as a captain one day!" Rovelyn says with a big smile.

TARGETS AND METRICS OF SOCIAL SUSTAINABILITY

EMPLOYEE RELATIONS		
2026 target	2025 progress	2025 target
Secure stability in the pool of seabased and shorebased personnel to handle coming growth.	Budget allocated for additional people onboard. Restructured shorebased side and additional recruitment seabased.	Secure recruitment for existing fleet and new vessels for delivery 2026. Secure a strategical platform for growth.
Continued focus on Living the Vision (LTV) with high engagement shore and sea.	LTV is well established and working.	Systematic on-the-job training through LTV.
Secure a working atmosphere with a clear experience of visible core values , monitored by work environment surveys and development talks.	Continued focus in daily dialogue, in seminars and conferences. Maintained a firm approach to what's accepted and not.	Secure a working atmosphere where our core values Mutual Respect-TeamSpirit and Quality are well understood and recognized by all employees onshore and offshore.
Continue to develop and maintain highly skilled personnel in all ranks and roles to secure competence on all levels.	Skills achieved by focusing on competence enhancement in line with requirements for shore and seabased personnel.	Continue to develop highly skilled crew in all ranks to maintain existing fleet and to handle growth.
Internal development of personnel in all ranks by offering career opportunities , and thereby to enhance company culture and loyalty.	Internal development of personnel in all ranks is continued and well established.	Continued development of own officers in all ranks from cadet level when possible to ensure loyalty and understanding of company culture and processes.
Use of trainee positions to secure focus on internal growth.	Trainee positions are well used in balance with need for regular crew.	Use trainee positions wherever possible to secure internal growth. Use cadets of various ranks, trainee officers etc. to secure future needs.
COMMUNITY ENGAGEMENT		
2026 target	2025 progress	2025 target
Provide access to LPG as a clean source of energy and ammonia as a potent fertilizer.	Done	Provide access to LPG as a clean source of energy and ammonia as a potent fertilizer.
Continue to support our CSR partners as well as engage in local activities both in Norway and Philippines when possible.	New CSR partner Streetlight selected in the Philippines in addition to supporting other smaller organizations in Norway.	Continue to support local communities where we operate, select new CSR partners for more hands on effect on our support.
Arrange company conference in Norway Sep 26 and combined conference/ family gathering for crew and officers in Manila Nov 26, to strenghten family focus and build corporate culture.	Done spring 25 and Nov 25	Arrange officer and crew conferences in Stavanger and Manila.
Increase local engagement in the Philippines, visit our cadets and engage in social activities with them to build a strong social responsibility within them.	Revised target	Live up to our mission statement

DIVERSITY AND INCLUSION		
2026 target	2025 progress	2025 target
High focus on diversity and gender equality in recruitment and under service, also in line with Norwegian standards.	Continued focus both for shorebased and seabased personnel in all roles. Topic discussed and presented at company conferences.	High focus on diversity and gender equality in recruitment and under service.
20% female candidates for cadet selection, and a sharp focus on diversity in general recruitment.	Due to lack of candidates, only 15% female cadets were available for selection in 2025.	Select 20% female cadets in deck and engine dep. plus focus on gender equality and diversity in recruitment of other ranks.
A stronger approach and focus on diversity in our recruitment strategy for 2026.	Continuing/ongoing	Actively promote diversity in our recruitment and rotation.
Target min. 2 females on vessels with other females serving, to focus on work and social balance.	Done whenever possible regarding to rotation and wishes.	Target min. 2 females per vessel when using female crew.
HEALTH AND SAFETY		
2026 target	2025 progress	2025 target
Work systematically to ensure health, fitness and safety for all employees by providing good tools, policies and info campaigns.	Done via Re-Start as well as finding other suppliers	Work systematically to ensure the health, fitness and safety for all crew and employees, both at work and home, in cooperation with external partners.
Zero LTI	Zero LTI	Zero LTI
Sick leave kept below 1% for sailing personnel, shore less than 3%	0.2% sea and 2.6% shore	Sick leave Solvang; Sea less than 1%, shore less than 3%
100% LTV compliance	Done	100 % LTV compliance
Systematic training of galley personnel via O-Serv and IFS to secure a healthy on board diet.	Focus on nutrition and healthy food continued via O-Serv and campaigns via health providers etc.	Keep systematic training of galley personnel to secure a healthy and nutritious diet onboard.
Increase physical and mental health focus by campaigns and platform for health checkups in various regions.	Done by having high standards on medical before joining	Keep focus on good health prior to onboarding by using strict requirements in line with P&I club standards and NIS Flag, as well as securing good health on board via internal initiatives.
Secure a working condition platform which includes good health insurance coverage and pension plan for all employees.	Done	Secure a good platform for health insurance and pension plan for all seafarers
Participate in Shell safety program	Done	Participate in Shell safety program

GLOSSARY

Frequently used terms and abbreviations

OPERATIONAL GLOSSARY

AER

Annual Efficiency Ratio. CO2 emissions divided by fleet/vessel DWT. Total fuel consumption.

$$AER = \frac{\text{total CO}_2 \text{ emissions}}{\text{deadweight} * \text{distance sailed}}$$

Dry-docking

Normally related to a vessel's periodic maintenance according to class requirements. The intervals are normally 5 years for newer vessels.

EEXI

Energy Efficiency Existing Ship Index describes the CO2 emissions per DWT and mile.

GRI

The Global Reporting Initiative helps businesses, governments and other organizations understand and communicate their impacts on climate change, human rights and corruption.

LTI

Lost Time Injury ratio measuring the level of injuries to employees in a company or an operation.

CSR

Corporate Social Responsibility is a management concept whereby companies integrate social and environmental concerns in their operations.

CSRD

Corporate Sustainability Reporting Directive is the EU's directive for ESG reporting and alignment of sustainability policies, actions and targets for European companies.

EEDI

Energy Efficiency Design Index. CO2 emissions divided by vessel DWT.

ESG

Environmental, Social, and Corporate Governance refers to the three central factors in measuring sustainability and social impact.

UN SDG

United Nations Sustainability Development Goals collect 17 interlinked global goals designed to be a "blueprint to achieve a better and more sustainable future for all". The SDGs were set in 2015 by the United Nations General Assembly and are intended to be achieved by the year 2030.

HSEQ

Health, safety, environment and quality.

(O)CCS(U)

(Onboard) Carbon capture and storage (and Utilization) is the process of capturing waste carbon dioxide (CO2), transporting it to a storage site, and depositing it where it will not enter the atmosphere.

EEOI

Energy Efficiency Operational Indicator. CO2 emissions per tonne cargo during voyage.

GHG

Greenhouse Gas, gasses in the earth's atmosphere which trap heat. F.i. CO2, methane (CH4), nitrous oxide, or various synthetic chemicals.

KPI

Key Performance Indicator.

CARGO GLOSSARY

Ammonia / NH3

Mainly used as raw material for fertilizer production.

Cbm

Cubic meter. The most common capacity nomination for gas vessels.

LPG

Liquefied Petroleum Gas, propane and butane.

Petrochemical gasses

Gasses used as input/feedstock in petrochemical industry.

FLEET GLOSSARY

LGC

Large Gas Carrier. LPG vessels between 50,000 cbm and 70,000 cbm. Normal size for newer vessels is 60,000.

VLGC

Very Large Gas Carrier. LPG carriers with over 75,000 cbm load capacity. The normal size for modern vessels is 84,000 cbm. As opposed to Panamax VLGC, these vessels can only sail through the new Panama Canal lockers.

Panamax VLGC

Very Large Gas Carrier with a beam of 32,2 meter enabling the vessels to trade through both Panama Canals. Newbuilds are around 88,000 cbm.

Semiref/ethylene vessel

A gas carrier capable of transporting cargoes both under high pressure and with full refrigeration.





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