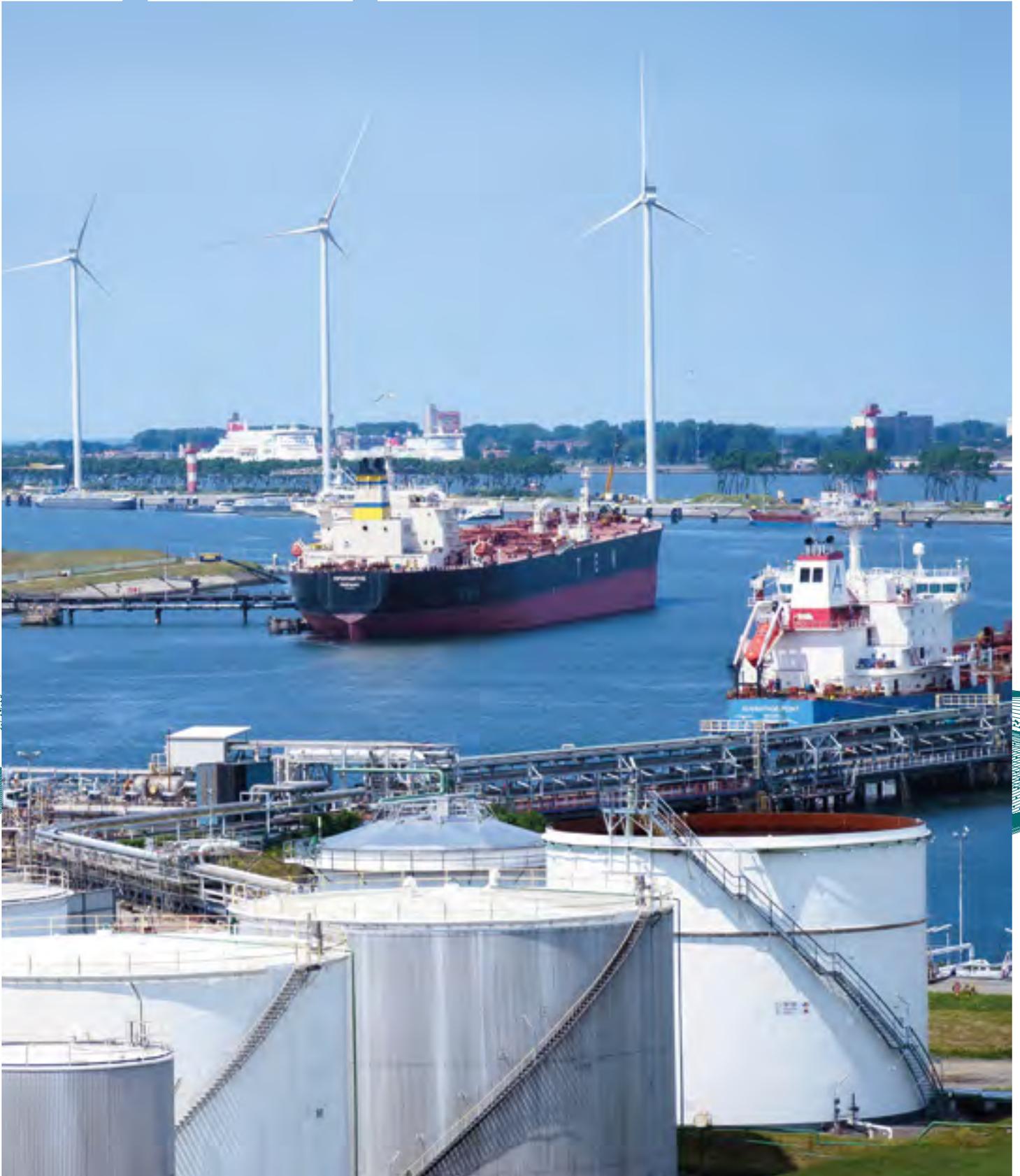


2021



# SUSTAINABILITY, ETHICS & COMPLIANCE REPORT





**Cover:** View from Gunvor Petroleum Rotterdam of the Port of Rotterdam

# Contents

<b>Introduction</b>	<b>04</b>
<b>Overview &amp; What Matters</b>	<b>11</b>
<b>By the Numbers</b>	<b>12</b>
<b>Health &amp; Safety</b>	<b>17</b>
<b>CS</b> The Green Book	25
<b>Environment</b>	<b>29</b>
<b>CS</b> Minerva	38
<b>Energy Transition</b>	<b>41</b>
<b>CS</b> Preparing an Oil Refinery for the New Energy Future	48
<b>CS</b> LNG Carbon Accounting	60
<b>Nyera</b>	<b>64</b>
<b>Financing</b>	<b>69</b>
<b>Human Rights &amp; Transparency</b>	<b>75</b>
<b>CS</b> Supply Chain Management in GPR	78
<b>CS</b> Gunvor’s Human Rights Journey	80
<b>Foundation</b>	87
<b>Compliance</b>	<b>91</b>
<b>CS</b> The Evolution of Training	96
<b>Basis for Reporting</b>	<b>100</b>
<b>Technical Appendix</b>	<b>102</b>

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# Introduction

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## ***Gia Mai, Chief Operating Officer & Chairman of HSEC Committee***

While reflecting on the last year in the context of this eighth edition of Gunvor's Sustainability & Ethics Report, it is apparent that the work that our company performs that is covered in this document is both progressing and continuous. For every year we succeed in hitting our targets in health and safety for example, we must strive once again to both match and improve on those, and then also expand into new areas, such as we did last year with the Energy Transition and Human Rights.



All of this adds increasing complexity to our business compared with the old days of "streamlined" commodities trading. Each year, we have new teams of people, new committees, and new policies and practices. We also have, as a result, a stronger business, one that is more efficient and accountable—to itself, its stakeholders, and the communities in which we operate. Embracing our responsibilities has enabled our growth and success.

In this sense, Gunvor could not be better positioned for the future.

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The significant changes the world has experienced since the advent of the COVID-19 pandemic—those that clearly demonstrate how the global economy impacts our everyday lives—have made people more aware than ever of our industry. It is unlikely the term "supply chain" has appeared more in media than it has in recent years. Unfortunately, it has mostly been coupled with another, pejorative term: "disruptions".

There has been an awakening as people all over the world have come to learn what is delaying their online order, or the derivation of the esoteric minerals for their batteries, or from where the energy is sourced that heats their homes, fuels their vehicles, and powers their personal electronic devices. Common awareness of our interconnectedness has, as a result, driven a rightful demand for accountability. And the concern is as much as about price as it is about environmental impact.

This is, of course, where companies like Gunvor have stepped up at the right time.

Our company moved 240 million MT of physical energy in 2021, a record amount since we began in 2000. With activities in more than 100 countries, this means energy traded by Gunvor has ended up being used by hundreds of millions if not billions of people around the world. Our role, as with other commodities traders, has been to smooth the markets, meet demand requirements, and encourage healthy competition—to the benefit of end consumers. But neither our job nor our responsibilities end there.

We have also been meeting the increasing demand for more sustainable types of energy, as the world has come to embrace the Energy Transition as a way to combat the realities of global Climate Change. Last year, about 49% of the commodities Gunvor moved were "transitional", according to the European Union Taxonomy, which includes biofuels, renewables, natural gas, and liquefied natural gas (LNG). To think, only 10 years ago, 100% of the commodities Gunvor traded were "traditional": crude oil, oil products, and coal.

While this shift did not occur over night—Gunvor has long since abandoned the physical trade of coal, for example—the evolution of our business has been a prelude to the definitive environmental commitments that Gunvor made in 2021, fully acknowledging that to build for the future, we must undertake our business in a better way.

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### Emissions Commitments

Early 2021, Gunvor announced its goal to target a 40% reduction in the company's Scope 1 and 2 emissions by 2025. We determined that steps must be taken today to effectively manage, limit, and where possible eliminate emissions, given the role hydrocarbons play in the global energy mix.

For Gunvor, the two most significant activities that generate greenhouse gas emissions are the company's industrial activities, specifically our European oil refineries, and our shipping fleet, both owned and chartered. We have committed to taking significant steps to reduce scope 1 and 2 emissions by 35% and 95%, respectively, by 2025.

### A Future for Refining

While Gunvor's oil refineries already have a significant track record for Scope 1 emissions reductions—largely due to strict compliance with European regulations, operational transformations, and energy efficiency initiatives—our company will take additional steps to create improvements.

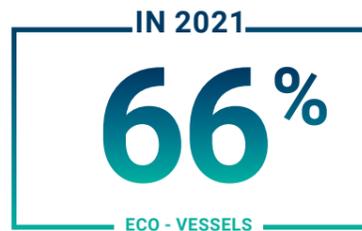
In coming years, Gunvor Refinery Ingolstadt (GRI), for example, will undertake focussed projects on its fluid catalytic cracker as well as heating systems and exchangers to continue improving its energy efficiency and reduce its emissions.

Gunvor Petroleum Rotterdam (GPR) and Gunvor Petroleum Antwerp (GPA) have already been transformed in the last two years, with GPR having shuttered its crude processing units, and GPA being mothballed. Looking ahead, we believe that their strategic locations will allow Gunvor to contribute to the transition towards "greener" fuels, especially for the shipping industry.

### Ensuring Efficient Shipping

Gunvor's actions with respect to shipping include a goal of having 100% of owned ships and 75% of time charter shipping fleet "eco-vessels" by 2022, with an overall 100% of both before 2027. While all ships chartered by Gunvor are vetted for compliance and technical requirements, including those for voyage and time chartering, during the last year the carbon performance of vessels has been added to the systematic vetting process.

Clearlake Shipping, Gunvor's chartering arm, also has taken steps to optimize emissions for a given passage with new performance monitoring dashboards analyse, track, and compare the performance and emission efficiency of multiple vessels. They can help to quickly identify underperforming vessels.



For each vessel, the program compares the forecasted emissions, when the vessel is to proceed at its intended route at ordered speed and the actual emissions when the vessel proceeded at the optimum route achieving the target speed. In 2021, Gunvor has managed to avoid 13,346 metric tonnes of emissions of CO<sub>2</sub>, which is the equivalent of 50% of the emissions due to our share in co-owned vessels.

### Investing in the Energy Transition

Gunvor has also been looking ahead. As a part of the company's emissions commitments, we established a dedicated vehicle, Nyera, to formalize non-fossil fuel investments, which will comprise a minimum of 10% of net equity that, with leverage, is expected to amount to a commitment of at least half-billion dollars (USD). Areas of Nyera's focus will include carbon capture and storage, renewable fuels, renewable power, and alternative fuels, including ammonia and hydrogen.

By the end of last year, Nyera had struck deals in the areas of renewable natural gas, plastics recycling, and other renewables investments at the company's Rotterdam facility. These projects are already serving to transition the Rotterdam refinery, in particular, towards a more sustainable future. As the commercial viability of sustainable sources of energy continues to be realized and as new commodities enter the market and grow, Gunvor will be prepared to ensure their safe and efficient movement to help balance markets.

Across all these efforts, to ensure Gunvor upholds proper governance of its Energy Transition initiatives, a multidisciplinary team has been established, known as the "Green Working Group". Leaders of different departments contribute to explore opportunities and organize projects. The Green Working Group is integrated into Gunvor's existing governance structure, through the Group HSEC Committee, which I chair.

### Promoting Human Rights

As Gunvor expands oversight of its environmental responsibilities, the company is taking additional steps to further safeguard its relationship

to the people and communities in which it operates. Since 2018, Gunvor has been working to implement the United Nations Guiding Principles on Business and Human Rights and has made significant progress in strengthening the company's processes, with the help of our partner twentyfifty.

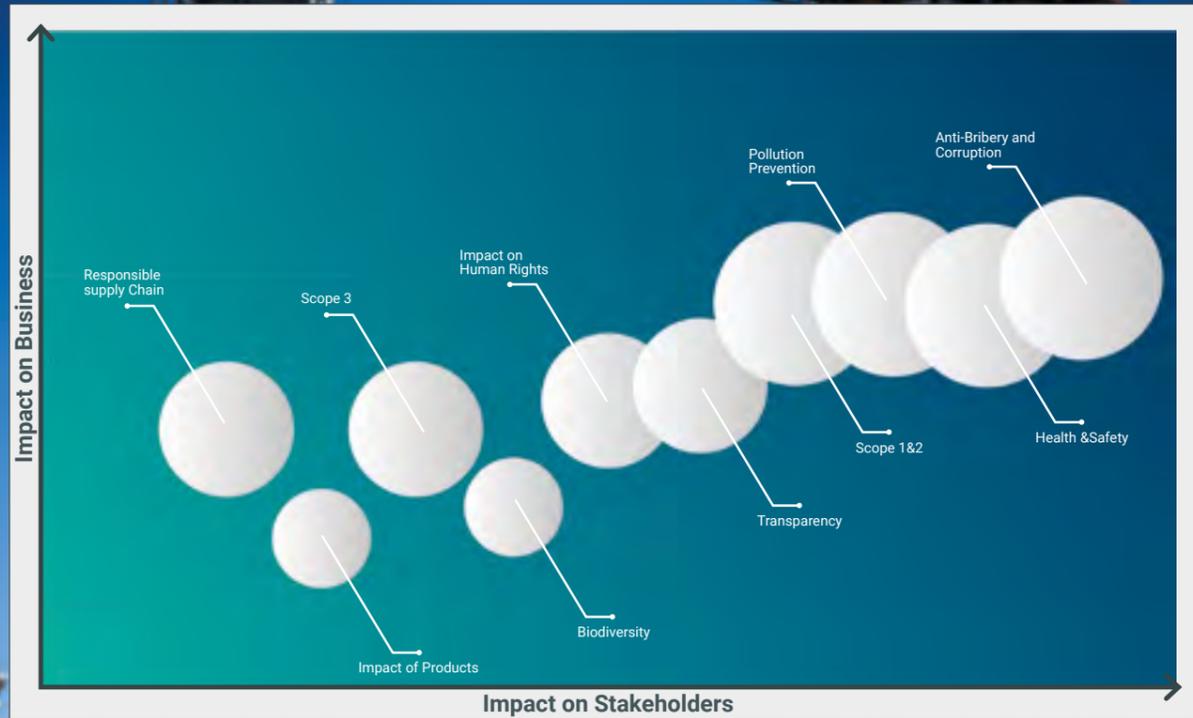
Gunvor has now embedded Human Rights in the company's Code of Conduct, training, vetting, and Know Your Counterparty (KYC) and contracting processes. By the end of 2021, 100% of assets operated by Gunvor had been assessed on Human Rights impact, along with some of our JVs. Moreover, 100% staff undertook a Human Rights awareness education session, and 100% of Gunvor's Compliance team was trained on Human Rights modules. Gunvor is further working to promote the Code of Conduct for seafarers as developed by the Sustainable Shipping Initiative, and will assess systematic access to grievance mechanisms for crews on chartered vessels.

Importantly, this focus and training on Human Rights has already had an impact. Since last year, Gunvor has taken steps to cease business with certain counterparties as a result of our processes having identified breaches of Human Rights principles, and for which a satisfactory solution could not be reached. Our company will act on the policies we implement, and our expectations of those with whom we do business will be upheld.

### At the Heart of this Document

While Gunvor has been moving to formalize and advance new policies, procedures, and practices, the company continues to ensure the most essential responsibility of this health and safety report. In the last year, no worker was injured with severe, long-lasting effects, and no incident took place that could be related to the company's product safety management. Gunvor will continue to uphold and refine the company's efforts to protect its workforce from fatalities or other significant traumas.

As with each of the previous reports, we hope you find this document informative and useful for understanding how Gunvor is evolving as a global energy commodities trading company. We welcome questions, insights, and feedback, so feel free to contact us if you have insights to share. In the meantime, we at Gunvor will continue to strive to achieve our goals and identify where we can do better during the year ahead.

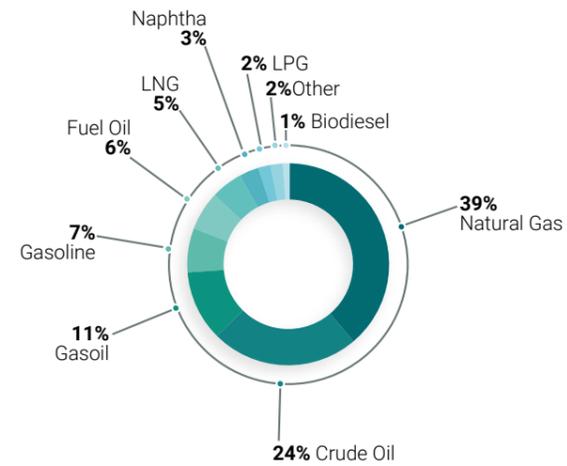


## Overview & What Matters

Throughout each year, Gunvor’s Department for Health, Safety, Environment & Community (HSEC) engages with the company’s various stakeholders, both within the organization and external to it, to understand their focus and to obtain feedback on our activities along our value chain. This includes formal and informal interviews, questionnaires, and analysis of their communications.

Here we present an overview of Gunvor’s value chain, as well as a materiality matrix, showing topics on our stakeholders’ agenda and those which have an impact on our business.

Volume by Product



Volume in Million Tonnes



● Traditional products ● Transitional products

# By the Numbers

 Checked

 In Progress

## Health & Safety

**ZERO**  Fatalities

**3.86**  All Injury Frequency

**1.29**  Lost Work Injury Frequency

**1.29**  Process Safety Event Rate

**100%**  Operated Sites covered by a Green Book Audit

### Incidents in Shipping Activities

**1**  Serious Mechanical Incident interrupting the Journey for >12hrs

**ZERO**  Serious Injuries

## Environment

**ZERO**  Spills of > 1 Barrel

**ZERO**  Enforcement Notice

**60%**  Reduction in Exceedance

### Air Emissions (kt)

	GPR		GRI
SOx	0.098		2.250
NOx	0.177		0.498
VOC	0.166		0.462
Dust	0.0018		0.0173



## Energy Transition

- 40%** Reduction of Scope 1&2 in 2025 vs 2019
- 736,375** Tonnes of Emissions in Refineries in 2021 vs 2019
- 3.74** tCO2/tLNG (LNG CO2 Intensity)

### Eco-ships

- 82%** Co-owned Fleet
- 66%** Time Chartering Fleet

### Proportion of Emissions Due to Transportation

- 7%** LNG
- 12%** Crude
- 17%** Naphtha

## Human Rights

- 100%** Operated Assets Assessed on Human Rights Impact
- 40%** JVs Assessed on Human Rights Impact
- 100%** Feedstock in our Biodiesel Plants Certified Sustainable
- 100%** Staff Followed a Human Rights Awareness Session

## Compliance

- 100%** Compliance Team trained on Human Rights
- 17** People in Compliance Team
- 1,152** Counter Parties Onboarded
- 26,740** Counter Parties and Related Individuals Screened



# HEALTH & SAFETY

## 2021 Objectives

- ✔ No fatalities and maintain the injury frequency at the industry benchmark
- ✔ Maintain the process safety incident frequency at the industry benchmark
- ✔ Continue to progress on Gunvor's Process Safety Road Map

## 2022 Objectives

- ✔ No fatalities and maintaining the injury frequency at the industry benchmark
- ✔ Maintain the process safety incident frequency at the industry benchmark
- ✔ Continue to progress on Gunvor's Process Safety Road Map
- ✔ Implement selected recommendations in safety assessments

## GOVERNANCE FRAMEWORK

The Group HSEC committee is the HSEC governance body on corporate level. It is chaired by Gunvor Group's Chief Operating Officer (COO) and includes key Executive Committee members and the Global Head of HSEC.

GOV - 1

The Global Head of HSEC is the Chair of the Refining HSEC Committee and works jointly with the Refining HSEC manager to ensure Gunvor's operational sites meet expectations defined in the company's HSEC Policy and HSE management system, as outlined in the "Green Book". Specific details on the contents of the Green Book, which is the basis of Gunvor's approach to Health & Safety, can be found in a subsequent Case Study in this report.

GOV - 2

SHS - 1

The Refining HSEC Committee meets every month to discuss progress on improvement programs, audit findings resolutions, and key performance metrics, as well as to share lessons from any incidents that may have occurred.

To closely monitor the implementation of all expectations and corrective actions, the central HSEC team carries out yearly audits on all sites operated by Gunvor and three yearly audits on any Joint Ventures.

More information on HSEC governance can be found in the HSEC Policy on the Gunvor Group website.

### ENGAGEMENT

Engagement of the workforce is one of the pillars of an effective Health & Safety management system, since the workers themselves are ultimately the most essential actors in any the effort to maintain their personal safety and to uphold the safety of those around them.

Training is an extremely important aspect of worker involvement and takes place in different stages, starting with on-boarding and taking place throughout their careers. It allows them to keep up with changes, refresh the memory, and keep up motivation. E-learning (online training tools and modules) have become common in Gunvor's organisation. It is also an opportunity for workers to provide feedback on the effectiveness of Gunvor's processes and procedures.

Individual involvement of site personnel further takes place during incident investigations, evaluation of procedures, internal audits, emergency exercises, risk assessments, and hazard studies.

Collectively, workers are engaged through Works Councils, which are involved in various aspects of HSEC management, such as in the selection of personal protective equipment or in learning from incidents.

As activities on our sites rely on external workers, it is also important that these individuals too have a clear vision of Gunvor's expectations and rules. Contractors are involved in various aspects of Health & Safety, including in the reporting and investigation of incidents and the evaluation of HSEC performance.

Ultimately, site management is accountable for worker engagement and is present in the field to interact with their team on a daily basis.

SHS - 2

### PERSONAL HEALTH

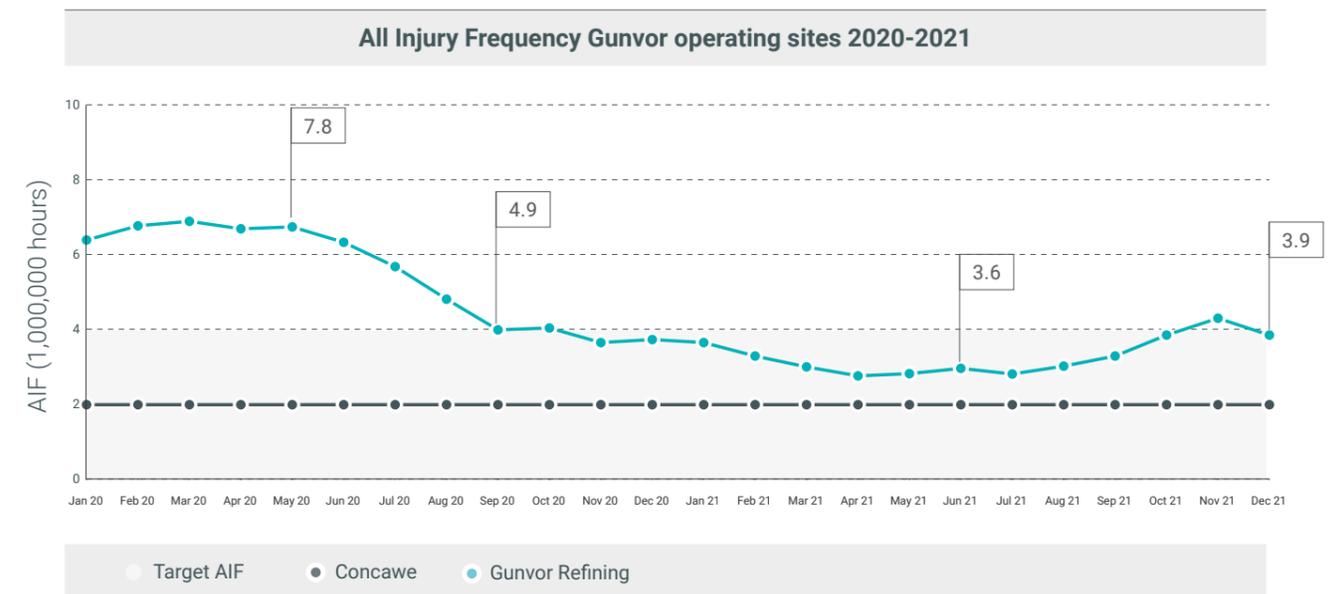
Gunvor's sites have health surveillance programs that depend on the nature of the work and local regulations. Systems are in place to identify and evaluate health risks. Exposure assessment programs address occupational health risks, and workplace risk assessments cover ergonomics and physical aspects (i.e., noise, vibration, temperature, etc.).

Larger operational sites, such as Gunvor's refineries, have arrangements for medical supervision and regular attendance of a medical doctor. Workers are offered health and fitness checks, and blood testing programs are in place for operators who are potentially exposed to chemicals.

SHS - 3

### PERSONAL SAFETY

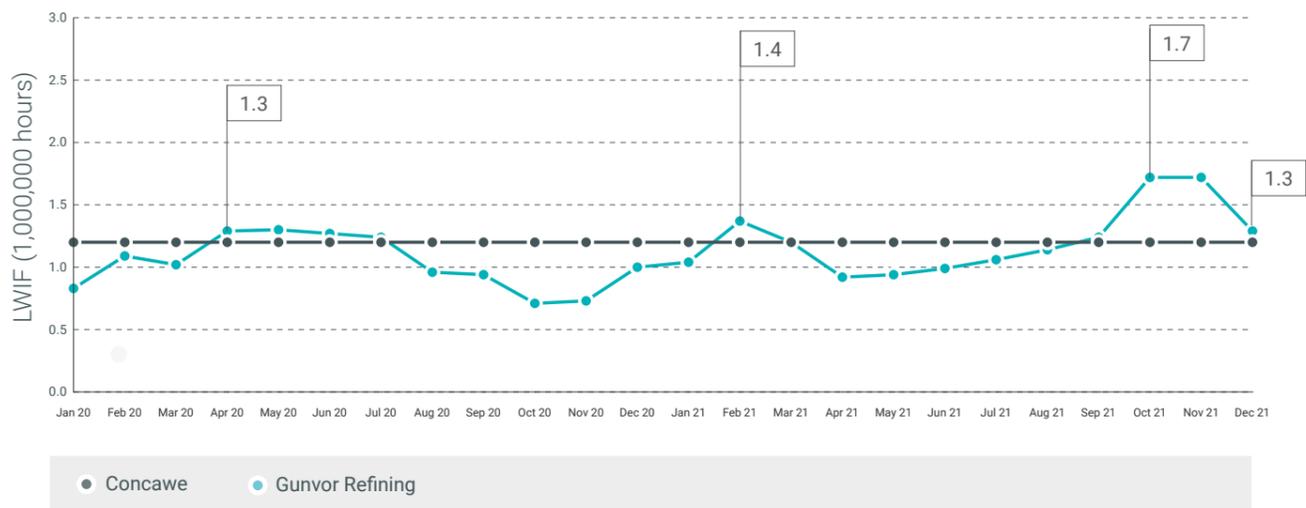
Gunvor uses All Injury Frequency (AIF) as the high-level metric for measuring injuries. AIF is defined as the total number of medical treatment cases and injuries that resulted in a person not being able to perform their normal work for at least one day, per million hours worked. Gunvor measures this metric at all operating sites, and the company participates in data collection organised by the European Oil Industry (Concawe), which maintains a benchmark.



Gunvor also compares itself with internal targets, which are higher than the benchmark to compensate for differences in the reporting culture across the industry. By the end of 2021, Gunvor was able to achieve its AIF target.

Most of the injuries covered in AIF are minor. Six out of nine injuries were medical treatment cases whereby the injured person could resume their activities, or could perform restricted work, on the same day. More severe injuries, resulting in workers not being able to return to work in a day, are monitored through the Lost Workday Injury Frequency (LWIF). As in previous years, this indicator is aligned to the average for the European refining industry as measured by Concawe, and better than Gunvor's internal target. Gunvor's continuous focus on the aspects that determine personal safety, such as training, education, enforcement of procedures, learning from incidents, permit to work system, and task risk assessments, has contributed to this achievement.

Lost Workday Injury Frequency Gunvor Operating Sites 2020 - 2021



Also this year we are happy to say that nobody was badly injured with severe long lasting effects. We won't decrease our efforts to protect our workforce from fatalities or other human disasters.

## TRANSPORT SAFETY

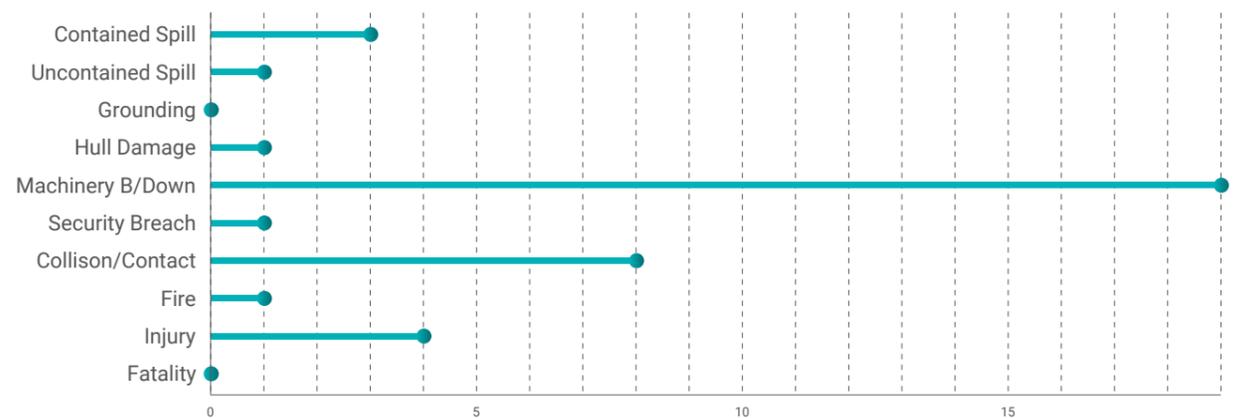
The majority of transportation involved in Gunvor's businesses on land and inland waters is carried out by third parties. To ensure compliance with complex regulations related to this work, Gunvor makes use of the services of specialised consultants.

Large maritime transport volumes are carried by Gunvor's wholly-owned shipping and chartering company Clearlake Shipping. As commercial operators of the company's time-chartered vessels, Gunvor is not fully responsible for the operational management of vessels or the crew, and is therefore not directly responsible for incidents; however, Gunvor closely monitors these data and the company uses its influence to promote performance improvements as much as possible.

In cases where the management of crews or incident rates are too high, Gunvor can make the decision not to work with certain companies—which the company has had to do in the past.

Incidents incurred this year are illustrated below:

Operational Incidents



None of the injuries had lasting effects and only one required medical evacuation. The ship deviated from its course and speed to allow timely assistance to the injured person.

SHS - 5



## PRODUCT SAFETY

Many of the products that Gunvor trades, fuels in particular, are highly flammable, and some are classified in other hazard classes. For example, certain naphthas are carcinogenic. Gunvor communicates the hazards, precautionary statements, and risk management measures to our clients through Material Safety Data Sheets (MSDS or SDS).

The format of the SDS is regulated by a globally harmonized system of the United Nations, and is further regulated by local product safety regulations, such as the REACH regulation in Europe, or the Hazard Communication Standard in the US (29 CFR 1910.1200).

Gunvor’s library of safety data sheets currently holds 367 items for various products, legal entities, and languages.

In several regions, such as the European Union, products may only be put on the market if the manufacturer or importer has submitted a dossier to the authorities with scientific information on the hazards for human health, safety, and the environment, based on animal tests and other studies. The rules for such registration dossiers are defined in the REACH regulation. Based on that information, risk management measures need to be defined and communicated in the safety data sheets. Gunvor has REACH registrations allowing for the manufacture or import of various petroleum substances and biofuel components for the most important areas.

Gunvor manages compliance with these regulations through procedures, a training module, and auditing. As far as the company is aware, no incident took place that could be related to product safety management by Gunvor.

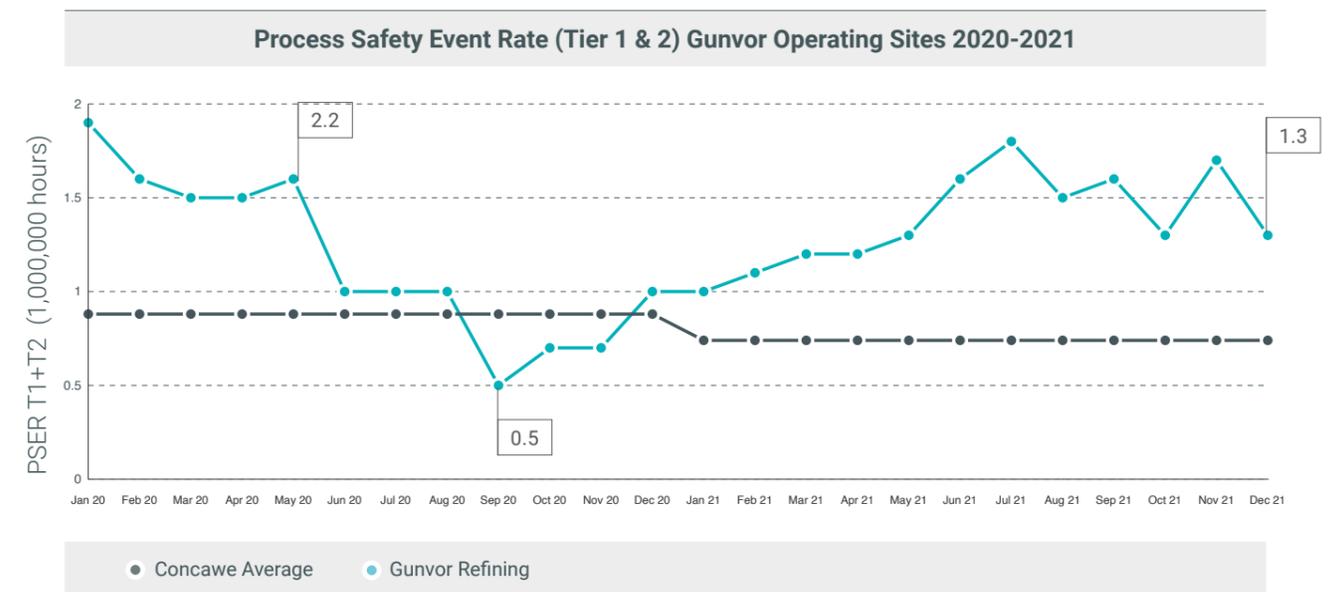
SHS - 6

## PROCESS SAFETY

Managing the risks associated with loss of containment, such as fires or explosions, is extremely important for Gunvor’s processing and storage sites, and this forms a major element of Gunvor’s HSEC governance and procedures.

Gunvor measure its performance by recording the process safety events (incidents and near misses) in the categories established by the American Petroleum Institute (Tiers 1, 2 and 3). The graph depicts the number

of Tier 1 and 2 incidents per million hours worked and compares this with the benchmark of the European oil industry. It shows that—despite gradual improvement and periods of good performance—Gunvor is still above industry average, a fact which drives the company to work ever harder to improve performance in this area by strengthening its assets, safety culture, work processes, and competence levels.



One process safety incident occurred at Gunvor’s sites that fell in the highest category (Tier 1). This was a release of 50 m3 of kerosene because a drain valve was incorrectly left in an open position. Fortunately, there were no major consequences as the result of process safety incidents. Gunvor carried out the mandatory root cause analysis and improvements are being implemented.



SHS - 7

## SECURITY

Gunvor’s sites and assets are not located in high-risk areas, but are still secured through high standards, including access control, vetting mechanisms, and guarding, among other precautions.

The information security posture across the organization has continued to improve in 2021, with the implementation of a risk-based program addressing protection, detection, and response capabilities. Organizational and technical measures have been implemented to mitigate identified risks, and to efficiently react in case of cyber-attack. Its effectiveness has been proven through the management of various real incidents, in which the company avoided or limited the impact to Gunvor’s operations. Strategic partnerships have also been established to leverage world-class experts to assist the company in specific areas.

These efforts will be further developed in the future, to follow business growth and IT transformation, and focus on emerging threats.

## The Green Book

GOV - 2

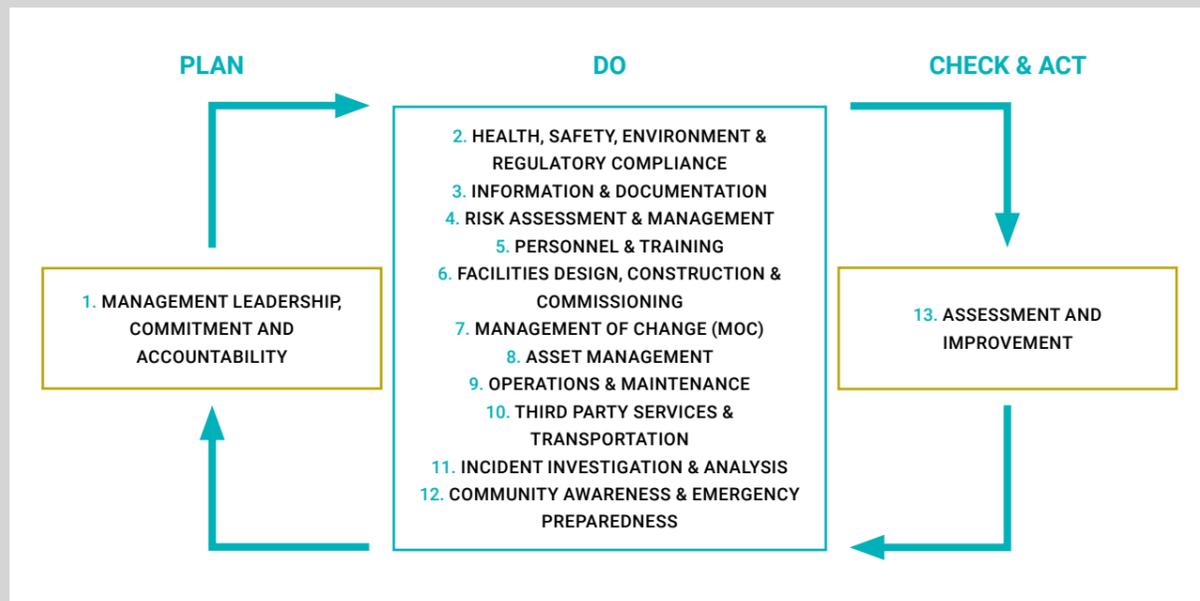
Gunvor has established 13 standards with HSEC-related duties and minimum requirements to which its refineries and other operational sites must comply. These standards are included in Gunvor’s Refining Health, Safety, Environment, Human Rights and Community (HSEC) & Operations Integrity Management System—which, to make it easier, is called the “Green Book.”



When Gunvor acquired its refineries (Gunvor Refinery Ingolstadt and Gunvor Petroleum Antwerp in 2012, and Gunvor Petroleum Rotterdam in 2016), the facilities already had HSEC standards in place, devised by their respective former parent companies. These reflected many of the safety requirements that are common for the refining industry, often the result of knowledge sharing and learnings from incidents and accidents across the industry for decades.

Gunvor performed a complete review of its HSEC standards in 2019. Working groups were established and review meetings were organised per the standard. This process was led by the HSEC manager for Gunvor Refineries and resulted in a new edition of the Green Book, published internally in 2020. It replaced the first Gunvor Green Book established in 2014.

The titles of the standards are depicted in the following diagram. The first standard (on leadership) and the last standard (on assessment and improvement) close a loop (Plan-Do-Check-Act).



As a result of the latest review process, new requirements were added and others were specified in more detail. A total number of 17 duties and 167 requirements are contained in the Green Book.

Here is an example of how this looks:

**4. RISK ASSESSMENT AND MANAGEMENT**

**Duty**

Sites shall assess their Health, Safety, Environment, Human Rights, & Communities (HSEC) risks in a systematic way and keep these risks to an acceptable level.

**Requirements**

1. Sites shall have formal risk assessment processes for (at least):
  - a. Tasks which require a work permit (Task Risk Assessments)
  - b. Safety critical tasks in operating or maintenance procedures
  - c. Workplaces with physical or chemical hazards (workplace risk assessments)
  - d. Process safety (e.g. What-IF, HAZOP, LOPA, Bow-Tie, QRA studies)
  - e. Changes relating to the management of change process
  - f. Engineering studies, projects, new facilities
  - g. Findings from audits and regulatory inspections
  - h. Dispensations in relation to overdue mechanical integrity inspections and in relation to findings from such inspections
  - i. Incidents and near misses

To ensure compliance with the requirements, an audit program has been put in place at different levels:

- Quarterly: Internal audits are conducted by site teams, which review their practices on a monthly basis and assess compliance internally
- Annually: A corporate audit team visits the sites to conduct a review, which has a focus on particular standard each year.

In addition, Gunvor has launched dedicated reviews for its biofuel plants, which have different risk profiles but still must comply with Green Book requirements. These reviews will be finalised in 2022, and a relevant internal audit programme will be defined.

All assets operated by Gunvor must go through a similar process.

The Green Book is the leading document in the HSEC management system for Gunvor's operational activities. It is more detailed than applicable ISO standards (9001, 14001, 45001, 50001) and more specific to the risks that occur in the company's operations. To facilitate auditing and integration, relevant ISO standards have been incorporated in the Green Book to ensure that while the sites comply with the Green Book, they also comply with the requirements of ISO standards.

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# Environment

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## 🎯 2021 Objectives

- ✔️ Maintain our low level of exceedances and complaints
- ✔️ Maintain our performance related to oil spills
- ✔️ See Energy transition section for specific climate change objectives

## 🎯 2022 Objectives

- 🎯 Maintain our low level of exceedances and complaints
- 🎯 Maintain our performance related to oil spills
- 🎯 Improve recyclability of our waste
- 🎯 See Energy transition section for specific climate change objectives

In this section we report on the most relevant environmental aspects from our refineries, terminals, biofuel plants and shipping activities.

## WATER

Gunvor's production activities consume considerable amounts of water and generate wastewater.

Fresh water is used in refinery and biofuel production processes. For example, water is used in the pre-treatment of feedstock, in steam production, and for cooling of hot refinery streams. The total consumption of water by Gunvor-operated assets in 2021 was 1.7 million m<sup>3</sup>. This was slightly lower than the amount used in 2020 (1.9 million m<sup>3</sup>), which results from the mothballing Gunvor Petroleum Antwerp in 2020.

ENV - 1

Water is sourced from the public grid, surface water (canal), and groundwater from underneath river shores, depending on the site. No water is withdrawn from water-stressed or water-scarce areas, in line with specific local authorizations.

**ENV - 2**

Wastewater is treated in treatment plants on Gunvor's production sites before it is discharged. The quality of the effluent is subject to permitted limit values.

Gunvor continuously monitor the quality of the water its facilities discharge. When there is an exceedance, it is reported and treated as an incident with an investigation carried out to prevent recurrence.

An important indicator for the presence of oil components in wastewater, is the "Chemical Oxygen Demand" (COD). It reflects the concentration of all the components that can be oxidized. European countries set emission limits within the framework of the Industrial Emissions Directive. Gunvor's sites report the COD and other concentrations to the local regulators as required in their permits. Within the company, the number of exceedances from permitted levels are reported on a monthly basis. Further information on environmental exceedances is provided in a following section.

The total volume discharged by Gunvor's refinery and terminal assets in 2021 was 1.6 million m<sup>3</sup> water, as compared with 1.7 million m<sup>3</sup> in the preceding year.

**ENV - 3****BIODIVERSITY**

Gunvor's approach to preserving biodiversity spans from protecting species that live on the company's sites to seeking means to limit the impact of company activities on natural habitats.

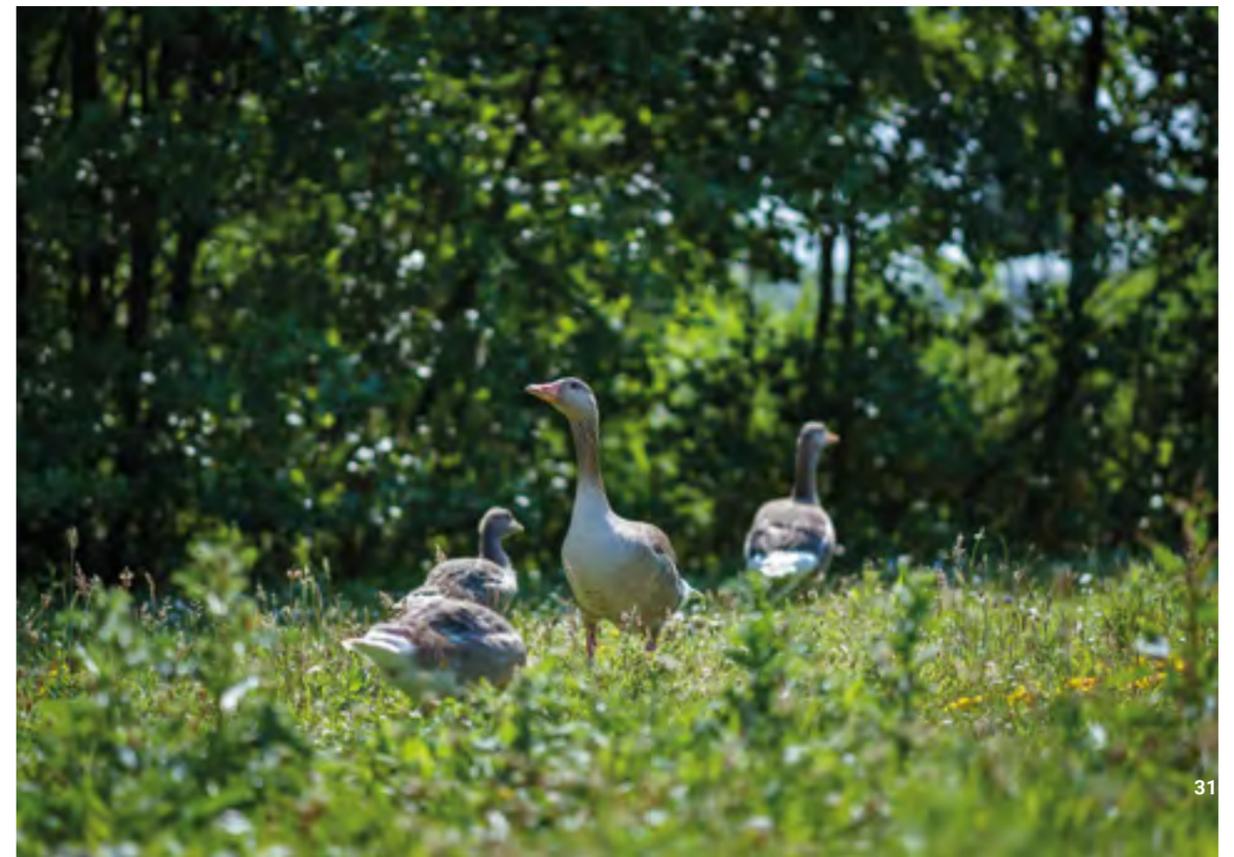
In Antwerp and Rotterdam, in particular, various species (oystercatchers, common terns, and various breeds of geese as shown in the opposite picture) find nesting and resting places. Gunvor has established a policy to facilitate the activities of wildlife as much as practically possible.

**ENV - 4**

In order to preserve habitats and avoid excess nitrogen in the air and water, the emission of nitrogen oxide is continuously measured and strictly limited. Gunvor currently does not operate facilities in protected areas or priority sites for biodiversity conservation. Gunvor's sites are typically located in existing industrial areas.

Beyond Gunvor's sites, the company also assesses its supply chain, where it has a responsibility to control impacts on biodiversity. For example, only sustainable feedstock is used in Gunvor's biofuel plants, subject to certification under relevant sustainability schemes. All purchased volumes can be traced back to the origin, in alignment with requirements from the European Renewable Energy Directive. Also crucial in maintaining the sustainability of supply chains is the identification and selection of reliable partners. All suppliers must meet sustainability criteria and an agree must be made on specific conditions for raw materials. Feedstock primarily consists of waste materials such as used cooking oil and residues from vegetable oil production. No virgin palm oil is used.

**100% certified sustainable feedstock for biofuel plants**



## AIR EMISSIONS

Our sites are subjected to strict emission limits for various pollutants with continuous or periodical measurement obligations and rules for reporting to the authorities.

ENV - 5

For our European sites the emission limits are governed by the Industrial Emissions Directive which requires member states to set emission limits based on Best Available Techniques, hence the limits are based on what is achievable.

Emissions are measured according to the permit requirements on a continuous or periodic basis. When measures show that a concentration is higher than what is permitted, this is reported as an exceedance. Further information on exceedances is provided in the next section on Environmental Compliance.

The most relevant air pollutants at Gunvor’s operational sites are sulphur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), particulate matter (dust), and volatile organic carbon substances (VOC).

SO<sub>2</sub> originates from sulphur in the fuel used at the company’s plants and from the regeneration of catalyst in the Fluid Catalytic Cracking unit (FCC). Through several measures such as the use of natural gas instead of oil as fuel, Gunvor has drastically reduced the SO<sub>2</sub> emission in the past. These measures also have reduced the emission of particulates such as soot particles. Further reduction of the SO<sub>2</sub> emission will follow from the installation of an SO<sub>2</sub> scrubber at the FCC unit in 2023.



The main source of NO<sub>x</sub> are the furnaces where a small part of the nitrogen in the combustion air reacts with oxygen depending on the conditions in the flame. Gunvor has equipped many of its furnaces with low-NO<sub>x</sub> burners to reduce the emissions.

VOC emissions are controlled by means of vapor recovery systems, equipment on floating roof tanks, and leak detection and repair programs.

The following table shows the emissions for Gunvor’s two refining sites, which differ in complexity and throughput.

	2019		2020		2021	
	GPR	GRI	GPR	GRI	GPR	GRI
SO <sub>2</sub> (kt)	0.276	2.710	0.059	2.422	0.098	2.250
NO <sub>x</sub> (kt)	0.326	0.585	0.069	0.504	0.177	0.498
VOC (kt)	0.215	0.475	0.217	0.468	0.166	0.462
Dust (kt)	0.0063	0.021	0.0016	0.0112	0.0018	0.0173

Information on Greenhouse gas emissions is available in the Energy Transition section.

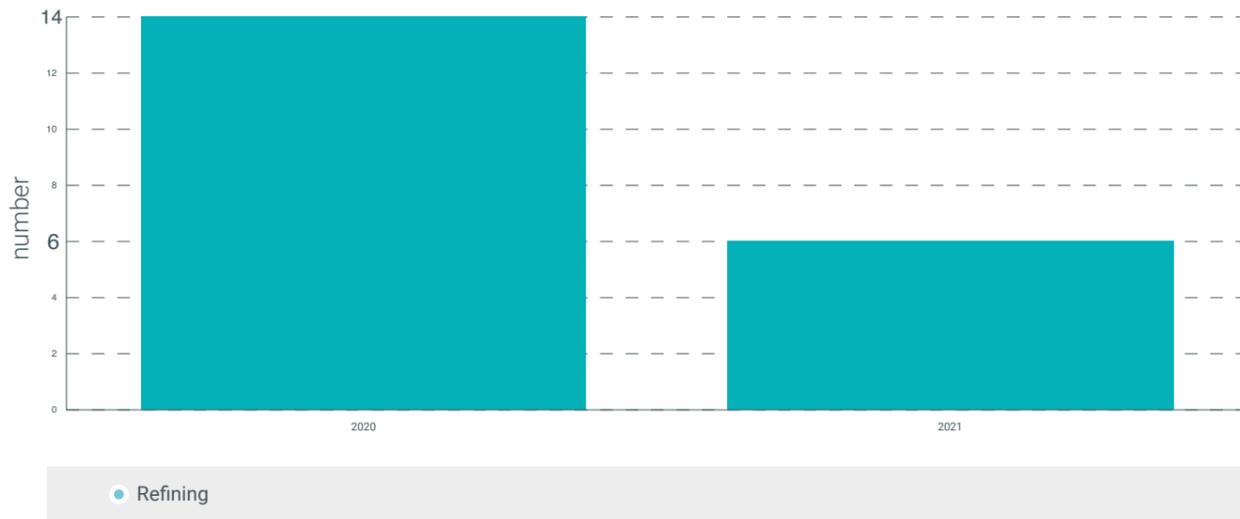
## ENVIRONMENTAL COMPLIANCE

ENV - 1&5

Gunvor’s governance ensures that exceedances are reported to management and treated as an incident with a proper investigation to prevent recurrence. In most cases an exceedance is caused by a disturbance in the refining process and normally the duration is short (minutes or sometimes hours).

The number of environmental exceedances from Gunvor’s refining sites is indicated in the following graph. Most of the exceedances that occurred in 2021 were related to air emission limits. The worst of such incidents was the accidental release of 20 tonnes of catalyst in the Ingolstadt refinery. This was caused by a malfunction in a catalytic cracking unit. The catalyst (in this case a non-hazardous material) went into the air without causing any harm.

Environmental exceedances 2020-2021



Our operational sites did not receive enforcement notices of fines from regulators in 2021 in relation to HSEC compliance.

### COMMUNITY ENGAGEMENT

SOC - 9

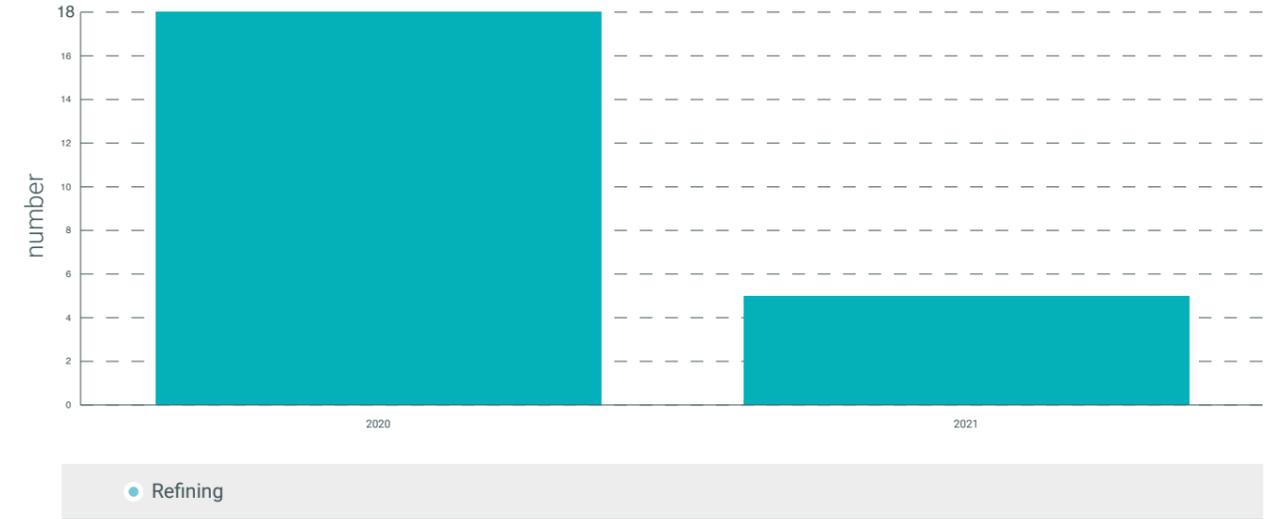
Gunvor's refineries regularly engage nearby communities either directly, through participation in local initiatives and events, or indirectly through meetings with municipalities and regulators.

SOC - 12

Sometimes the refineries receive complaints from people living in nearby villages on nuisance, usually caused by smells or noise during disturbances in our processes. The complaints are handled through Gunvor's community grievance process. Each complaint is treated as an incident, with an investigation to find the cause and define actions to prevent recurrence.

The following graph shows the number of complaints, which was lower than in the preceding year.

Community complaints 2020-2021



### SPILLS

ENV - 6

The number of spills greater than a barrel to the environment (unprotected soil or water) is an important metric in the oil industry. In the past, Gunvor has implemented measures to reduce the number of spills. Gunvor-operated sites managed to keep that number to zero in 2021, just as with the previous year.

Gunvor wants to maintain this level of performance and has implemented a clear policy, stating that all spills matter and shall be reported, allowing the company to investigate small spills and preventing situations to deteriorate.

In Gunvor's shipping activities, one spill was uncontained (see section on Health & Safety) but did not go overboard. Approximately 10 litres leaked from a hydraulic accumulator before the issue was rectified, and vessel readiness was witnessed by the Class surveyor.

IN 2021  
**ZERO**  
SPILLS





ENV - 7

## WASTE MANAGEMENT

The graph below provides information on the waste quantities in the last two years. The quantities vary considerably. The spike in November 2021 was caused by a construction project whereby a large quantity of soil had to be disposed.

Soil remediation and demolition projects also generate significant quantities. These factors explain the variation of waste quantities, and as far as Gunvor's develops approaches to minimize and optimize waste generation, some quantities are unavoidable.

Gunvor's waste management is focused on separation into various types of waste and selecting the appropriate destination for each category with the help of specialized contractors. This work is heavily regulated in order to protect the environment and all waste is transported to licensed waste processing sites.



## RECYCLING & THE CIRCULAR ECONOMY

ENV - 7

Gunvor's biodiesel plants in Spain already fit into a circular economy model. Waste materials, such as used cooking oil, become valuable low-carbon fuels. Gunvor's petroleum refineries contribute to the Energy Transition by means of developing plans for producing low carbon liquid fuels. Examples include:

- Co-processing of pyrolysis oil from plastic waste in order to produce fuels with a reduced carbon footprint
- Co-processing of oil from vegetable origin to produce fuels with a reduced carbon footprint
- Hydrotreating vegetable oil to produce HVO (biodiesel component) and Sustainable Aviation Fuel

## DECOMMISSIONING

ENV - 8

Gunvor's HSEC standards require sites to include obsolete equipment in the asset management procedures so that inspection and maintenance is continued as far as needed for preserving safety and the environment. This continues until such equipment is removed.

Demolition takes place when that becomes the preferred option for keeping a site in a safe state or when space is needed for new developments. In 2021, no major demolition activities took place at Gunvor's sites.



## MINERVA

*Gunvor's investment in SO2 emission improvements and commitment to compliance with changing regulatory requirements at its Ingolstadt refinery.*



Dealing with climate-related and environmental challenges is one of the most important tasks of our generation and a responsibility Gunvor takes full commitment for.

One focus area is the continued effort to reduce air emissions further. As regulatory requirements for sulphur dioxide ("SO2") emissions became more stringent, the MINERVA project was initiated at Gunvor's Ingolstadt refinery. MINERVA is the acronym for **M**odern **I**ngolstadt **E**missions **R**eduction **V**ia **A**mine.

With the technology selected, the SO2 is separated from the flue gas and converted into elementary sulphur in the existing sulphur recovery unit. Thus, emissions are transformed into a valuable chemical raw material for the industry while at the same time feed resource requirements, waste and wastewater streams are minimized.

A cross-functional refinery project team works with full dedication on all relevant topics for a successful implementation. The process design of the core process was completed together with the technology licensor in 2020. An experienced engineering company was appointed to commence engineering subsequently. Permit engineering was conducted by own refinery personnel with support of several external experts.

The detailed engineering for the project is now close to completion, all the necessary equipment is already ordered and fabrication is progressing at full speed.



Construction activities already started in spring 2020. At that time, construction site clearing for a major equipment was conducted as first visible, major construction step. This could only happen during a certain time window due to operational reasons as freeing up the space for MINERVA required relocation of another equipment continuously in use.

Another important upcoming milestone is the pile grounding for the foundation of the main equipment. For this activity, an advanced civil technology is used with the advantages of less space requirements, low vibration effects on surrounding facilities and lower cost. The piles will carry a load of more than 7,500 t.

In the coming months construction activities for MINERVA will increase steadily. Commissioning is planned for the fourth quarter of next year to further reduce the SO2 emissions of the refinery.



**Contribution by Stephan Treiber, Krunoslav Petkovic, Verena Zinsmeister**



## Energy Transition & CO2 Emissions

### 🎯 2021 Objectives

- ✔️ Continue reducing energy consumption and CO2 emission in refineries and in Gunvor's shipping activities in line with sustainability commitments
- 🔄 Continue reducing the CO2 footprint of the products Gunvor trades
- ✔️ Begin analyzing and documenting the CO2 intensity of specific energy products in Gunvor's supply chains

### 🎯 2022 Objectives

- 🔄 Define CO2 reduction targets for Gunvor's time-chartered fleet
- 🔄 Define reduction approach to methane emissions
- ✔️ Continue reducing energy consumption and CO2 emission in refineries and in Gunvor's shipping activities in line with sustainability commitments
- 🔄 Continue with analyzing and documenting the CO2 intensity of energy products in Gunvor's supply chains

### CLIMATE GOVERNANCE & STRATEGY

CCE- 1

As a leading global physical commodities trading company, Gunvor Group is inherently equipped to be responsive to market changes, and the company's success over the last 20 years is based on its ability to do so. While Gunvor has historically focused on the safe and efficient movement of crude oil and oil products, the company has been for more than a decade diversifying into new commodities and strategies in response to shifting markets and opportunities. Nearly 50 percent of



Gunvor's trading today consists of "transitional" commodities, based on the EU Taxonomy, which includes biofuels, natural gas, and liquefied natural gas (LNG). The company has ceased physical coal trading and acquired biofuels plants.

To build on this record, Gunvor has committed itself to both further improve the environmental impact of its current trading portfolio and invest in new sustainable commodities and businesses.

To ensure Gunvor upholds a proper governance of its Energy Transition initiatives, a multidisciplinary team has been established, known as the "Green Working Group". Leaders of different departments contribute to explore opportunities and organise projects. The Green Working Group is integrated into Gunvor's existing governance structure, through the Group HSEC Committee, which reports to the Executive Committee.

## CLIMATE RISKS & OPPORTUNITIES

CCE- 2

To manage risks associated with climate change, and their impact on Gunvor's business, the company has undertaken a number of commitments, which were summarised in the previous issue of this sustainability report. In 2021, Gunvor published its sustainability commitments in a document, which can be found on the company website.

During this year's overall risk review, formal process involving all parts of the company and presented to the Executive Committee, climate change was identified in two specific items:

- Physical risk to the company, including impact on shipping activities and terminals on lower grounds
- Business risk related to the transition of the commodities trading industry towards "greener" energy sources

Gunvor's approach to the Energy Transition is described in a subsequent section, along with the progress the company made in reducing the CO2 footprint of its trading, shipping, and refining businesses. Physical risks will be covered in a subsequent edition of this report.

One of Gunvor's main commitments is to invest in Energy Transition initiatives. Gunvor's does this through Nyera, an investment vehicle established for this purpose, whose activities are described in a subsequent section.

To reduce the Scope 3 emissions of Gunvor's trading businesses, a first step is to develop methods for measuring and analysing the current CO2 footprints of trades. For this purpose, Gunvor hired a firm that specializes in such work, Carbon Chain, which has commenced this large scale exercise by focussing initially on:

- Crude oil
- Naphtha
- LNG

This work will provide a baseline so that future improvements can be quantified. It will allow Gunvor to provide information to its business partners that wish to calculate their own CO2 footprints. Work will continue in the next years and be extended to other traded products.

CCE- 4

## CO2 EMISSIONS

Greenhouse gas (GHG) reporting is limited to carbon dioxide (CO2) as a first step. Inclusion of methane, nitrous oxide (N2O) and other greenhouse gases will be evaluated in the future.

- Scope 1** emissions are defined, according to the international GHG protocol, as direct emissions from assets. The protocol gives a choice on how to include assets. Gunvor applies the “financial control” approach, i.e., the company takes into account the assets over which it has financial control (in general, ownership > 50%). In the case of joint financial control, Gunvor includes the emissions in proportion to its equity share. The direct emissions from these assets is what is emitted on the sites. These emissions are associated with combustion processes such as to generate heat, steam or propulsion.
- Scope 2** emissions are indirect emissions from electricity purchased by Gunvor sites (the emissions taking place at the power plants that supply electricity to the public grid).
- Scope 3** emissions are certain other indirect emissions. Currently, Gunvor has included in this scope the emissions from flights, transport, and storage activities ordered by the company. At this stage only some emissions during the production of purchased products and the use of sold products are included. These emissions are very much dependent on Gunvor’s trading volumes. Information on the CO2 footprint of Gunvor’s traded products is provided elsewhere in this report. Furthermore, emissions from transport and storage ordered by Gunvor’s trading desks that is not carried out through its own shipping branch are not yet included in the shipping data.

The following table summarises our CO2 emissions in 2021. Because Gunvor only just developed its internal CO2 reporting procedure this past year, a trend for a longer period cannot yet be provided. The reporting of Scope 3 emissions will improve over time, and the company will define reduction targets.

Scope		Operations	Shipping	Offices	Travel (flights)	Trading <sup>1</sup>			
						Crude Oil <sup>2</sup>	Biofuel	Naphtha	LNG
Emissions (tonnes CO2)	Scope 1	921,027	25,046						
	Scope 2	106,529		1,038					
	Scope 3	(see trading)	1,756,456		464	273,270	47,004	2,610,000	30,880,000
Aspects included in scope 3	exploration & production					✓	✓	✓	✓
	transport & storage					✓	✓	✓	✓
	refining / processing							✓	✓
	consumption		✓		✓				✓

<sup>1</sup> Trading related emissions also include shipping data. We have chosen to include to whole trading flow here.

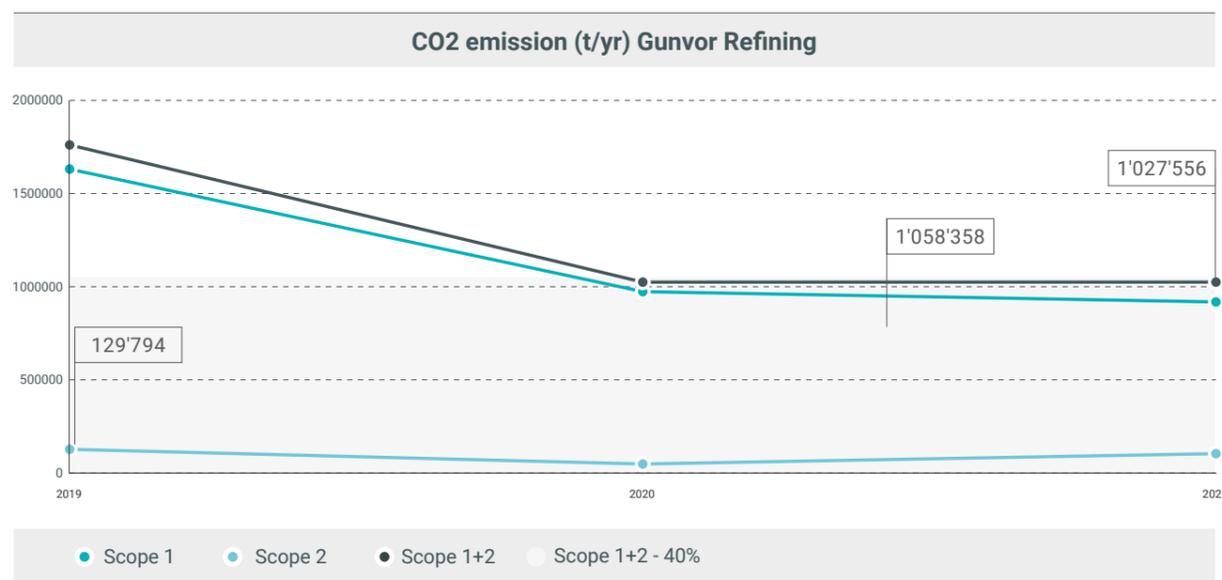
<sup>2</sup> Crude Oil: at this stage, only feedstock going to our GRI refinery is included



## CO2 EMISSIONS IN REFINERIES (SCOPE 1 & 2)

The following graph depicts the direct CO2 emissions from Gunvor's refineries (Scope 1) and the indirect CO2 emissions from purchased electricity (Scope 2). The emissions declined sharply in 2020 due to reduced refining activity. In 2021, the Scope 1 emissions declined further and the Scope 2 emissions increased slightly, reflecting changes in refining activity.

Also depicted in the graph is Gunvor's commitment to reduce the group's Scope 1 and 2 emissions by 40% by 2025 against baseline 2019. For refining activities, this reduction is within reach, as the company will be working to improve processes and equipment on its site.



In our Ingolstadt refinery (GRI), examples of improvements are focused projects for heat integration and optimization of the Fluid Catalytic Cracker. They are projected to increase the refinery's energy efficiency by more than 13 MW and reduce the CO2 emissions by more than 45,000 tonnes per year (around 7% of the overall CO2 emissions for the refinery).

GRI's Energy Road Map is being further developed beyond 2023 with specific CO2 reduction target potentials and a pipeline of projects is screened to further reduce CO2 emissions.



## Preparing an Oil Refinery for the New Energy Future

Climate change is undeniable. It is a verified fact that the raising concentration of greenhouse gases in the atmosphere resulting from human activity is the main contributor to this phenomenon. Technology breakthroughs and the development of society have brought us to what we are today. A civilisation that heavily relies on energy and intensive agriculture.

We, at GPR (Gunvor Petroleum Rotterdam), are very concerned by the environmental developments and are working hard to define a sustainable future for our company. This journey started with shutting down crude oil processing in 2020, significantly reducing our emissions to air and water. This was planned in early 2019.

Many questions however remain on the table; is this enough? Do we understand the requirements of tomorrow? As a regional energy supplier, GPR will need to adapt to the changing habits of the consumers. Whereas we see many behaviours changing due to subsidised energy programs, we might in the end face a serious mismatch between energy demand and supply.

Therefore, we are integrating technology, political, economic, legal, environmental, and sociological factors in our thinking process. By cautiously making very well thought through steps, we have the ambition to turn threats into opportunities.

Drawing a timeline far enough into the future helps to define a logic, which shall always be in the back of our minds when making decisions; do the envisaged steps make sense? There is of course no straightforward answer to this, but for sure, future civilizations will need energy. Whereas we believe that oil will play an important role for many years to come, basic requirements will most likely come from electrical power. How will this be produced, transported, stored and transformed to adapt to various purposes? How do we bridge from the current global energy mix to the future requirements?

At GPR, we always think in these terms to define the next steps, which are required to sustain our activity. We are therefore considering investigating transport and storage of electricity under different forms, like hydrogen and ammonia. What if we succeeded in transporting, storing and



distributing renewable electrical power originating from places where it is much more efficiently produced? This is definitely something we want to explore. Can we see any benefits in developing bridging technologies like renewable diesel produced from waste products or contribute to the circular economy by entering the supply chain of plastic waste to plastics? How does this match with existing assets?

Reusing existing processing plants for a different purpose also contributes to sustainability, by for example co-processing of bio-waste and or recycled plastics.

As industrial leaders, we have the responsibility to go through structured strategic thinking processes such that we handover energy production assets to future generations, which have been developed following a sound logic and a solid business case. These processes have always been challenged by geo-political aspects and more recently by the Covid19 pandemic. There is no doubt that our Gunvor assets will undergo restructuring in the coming 10 years to adapt to new requirements and provide more sustainable energy to our customers.

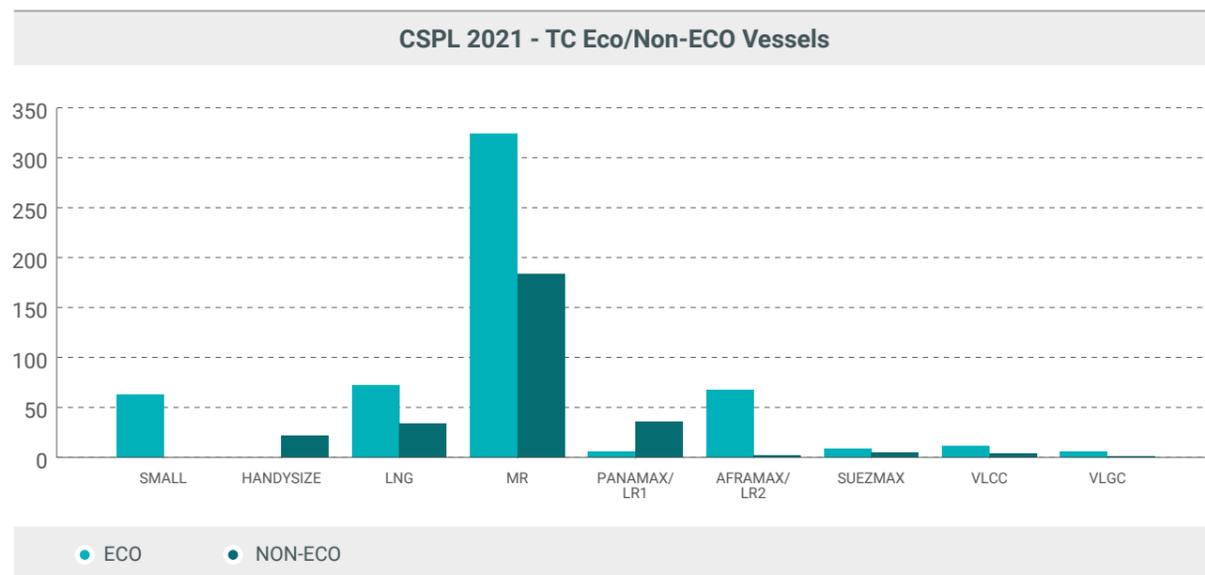
## CO2 EMISSIONS IN SHIPPING (SCOPE 1 & 3)

Maritime transport is the backbone of global trade and the global economy, enabling 90% of the world's total trade. Emissions from shipping represent a substantial part of Gunvor's carbon footprint and the company has been constantly working towards reductions with available techniques while also exploring new technologies.

### FLEET TRANSFORMATION

#### Eco Vessels

Gunvor and its shipping arm, Clearlake Shipping, have committed to transform their fleet towards more efficient vessels. Gunvor has committed to 100% eco vessels in its co-owned ships and 75% of eco vessels in its time-chartered fleet by 2022. In December 2021, Gunvor had 66%. The transformation is shown in the graph below, with the objectives to get to 100% eco vessels, by 2027.



#### Vessel Vetting

All ships chartered by Gunvor are vetted for compliance and technical requirements, including those for voyage and time chartering. In 2021, carbon performance of vessels has been added to the systematic vetting process. The standard European A-to-G energy efficiency scale is used to assess vessel performance. Vessels unable to comply with Clearlake Shipping's GHG commitments will not be chartered.

#### New Technologies

Zero-emission ships are not yet available at commercial scale, but Gunvor is committed to exploring the adoption of the best technologies available and to adapting its fleet according to improvements in the industry.



### MINIMIZING EMISSIONS IN OPERATIONS

Expectations on operational performance of ships are growing in the industry, regionally and globally with recent International Maritime Organization (IMO) standards being implemented. To be ready when the IMO's Carbon Intensity Index (CII) comes into effect, Gunvor has developed a program called "ECO", that streamlines data-collection, validation, and reporting of all emission data related to shipping activities.

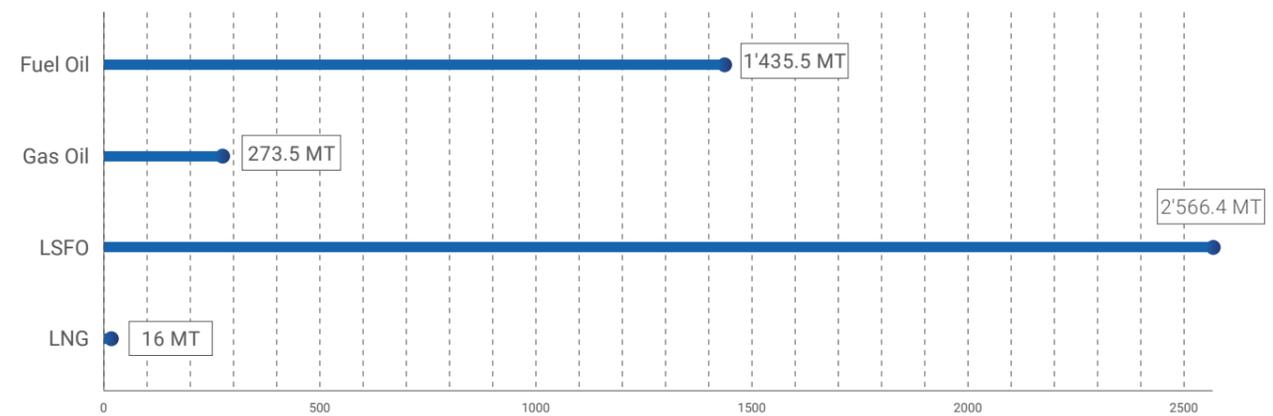
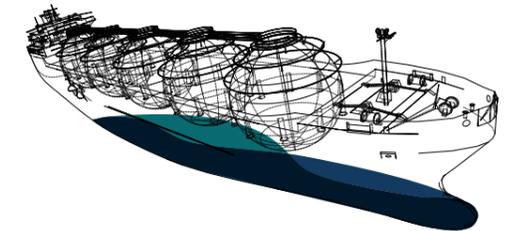
Clearlake Shipping not only optimizes emissions for a given passage, but the performance monitoring dashboards can also help to quickly identify underperforming vessels. Performance monitoring dashboards analyse, track, and compare the performance and emission efficiency of the entire fleet.

For each vessel, the program compares the forecasted emissions, when the vessel is to proceed at its intended route at ordered speed and/or constant rotation per minute (RPM) and the actual emissions when the vessel proceeded at the optimum route achieving the target speed. In 2021, Gunvor has managed to avoid 13,346 metric tonnes of emissions of CO2, which is the equivalent of 10% of our scope 2 emissions.

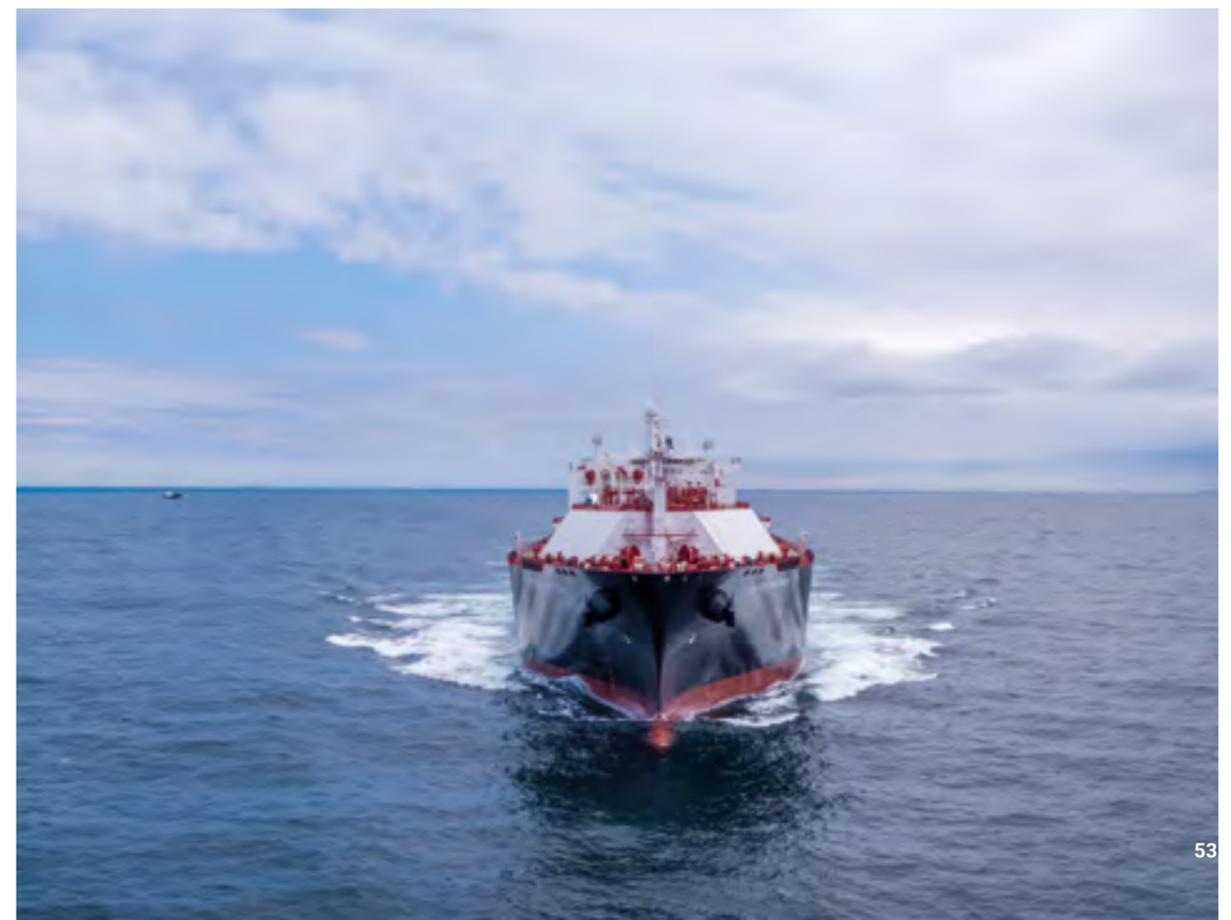
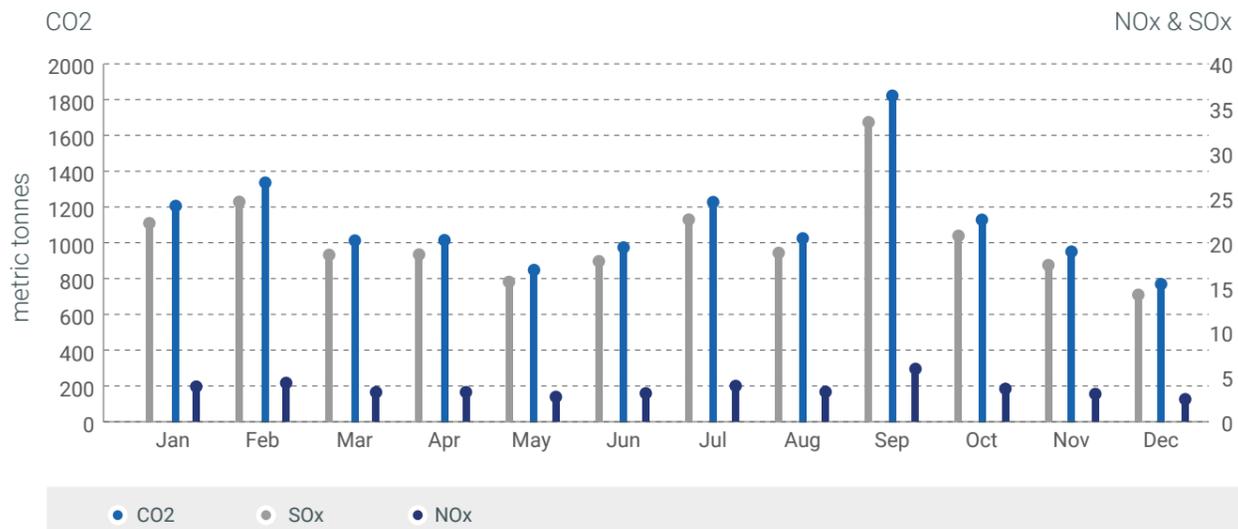


### Program ECO Efficient Commercial Operation

APPROXIMATE SAVINGS OF  
**4291**  
TONNES OF FUEL ON OUR FLEET



Emissions Reduced - 2021





### CALCULATING EMISSIONS

In addition to the CO2 emissions from ships that are co-owned by Gunvor, the company has calculated the emissions generated by all the ships that is charters, on a voyage and time basis:

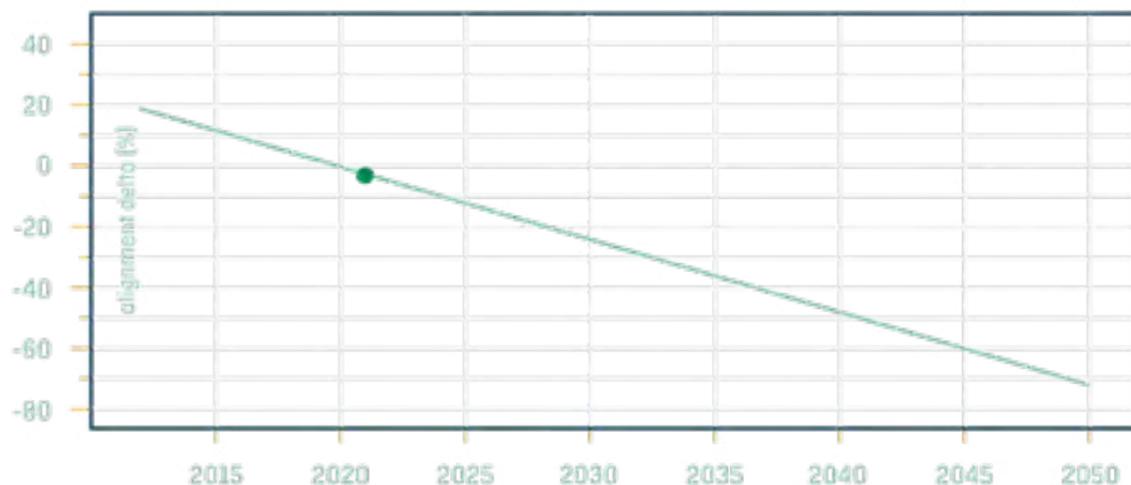
- CO2 emissions from co-owned ships
- CO2 emissions from time chartered vessels
- CO2 emissions from voyage charter vessels

As a founding member of the Sea Cargo Charter, Gunvor has committed to define and communicate its alignment to the IMO CO2 reduction trajectory. Gunvor's performance has been independently calculated by Lloyd's Register Performance, Design and Environment Group.



Overall, as in previous years, Gunvor's fleet is performing better than the IMO reduction trajectory.

Annual activity climate alignment score: -1.3%



Depending on the vessel type and size, performance vary, and Gunvor will be working to improve underperforming categories to each full alignment in the coming years.

#### Vessel category climate alignment

Bulk carrier		Liquefied gas tanker	
0-9,999 dtw	N/A	0-49,999 dtw	-48.1%
10,000 - 34,999 dtw	N/A	50,000 - 99,999 dtw	20.9%
35,000 - 59,999 dtw	N/A	100,000 - 199,999 dtw	1.7%
60,000 - 99,999 dtw	N/A	200,000 - + dtw	N/A
100,000 - 199,999 dtw	N/A	Oil tanker	
200,000 - + dtw	N/A	0 - 4,999 dtw	N/A
Chemical tanker		5,000 - 9,999 dtw	5.6%
0 - 4,999 dtw	-95.3%	10,000 - 19,999 dtw	16.0%
5,000 - 9,999 dtw	28.1%	20,000 - 59,999 dtw	-52.4%
10,000 - 19,999 dtw	43.6%	60,000 - 79,999 dtw	26.2%
20,000 - 39,999 dtw	29.8%	80,000 - 119,999 dtw	-31.1%
40,000 - + dtw	8.3%	120,000 - 199,999 dtw	-39.1%
		200,000 - + dtw	-22.3%

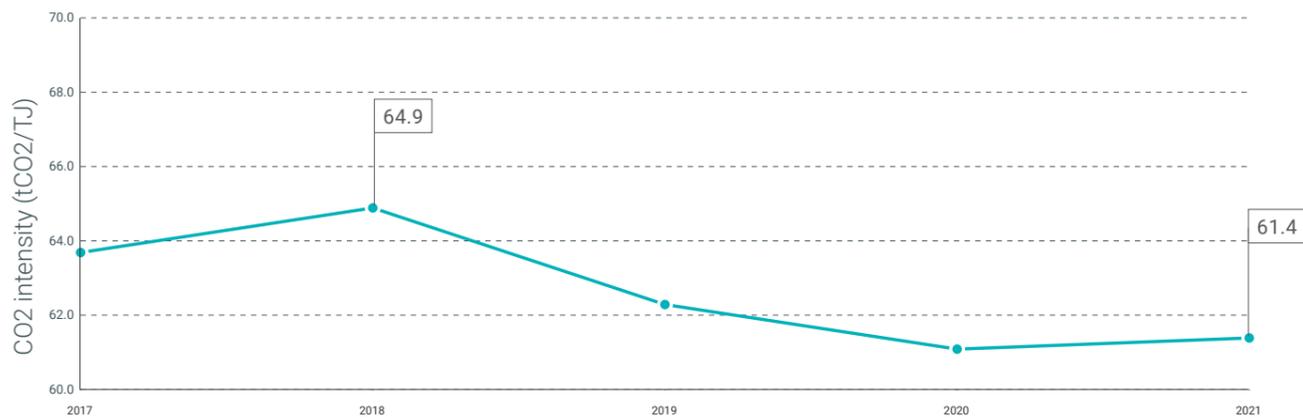
Segment 1 Only time charterer & final time charterer	Segment 2 Voyage charterer	Segment 3 Intermediate time charterer & bareboat charterer	Segment 1 Owned vessels
Included	Included	Not Applicable	Not Applicable

## CO2 EMISSIONS RELATED TO TRADED PRODUCTS

A large portion of the products that Gunvor trades is fuels. They contain carbon, which is released as CO2 when the fuel burns. Some products release more carbon per unit of energy than others and it is Gunvor's aim to reduce the CO2 intensity of the company's products. To that end, Gunvor has committed not to trade physical coal and is investing investments in renewables, including in biofuel plants.

The result is that the CO2 intensity of the products that Gunvor trades has reduced in recent years. The following graph illustrates this decline. The total volumes of fuels and crude oil sold by the company increased significantly and the share of transition fuels remained roughly the same as in the previous year which explains the plateau we have reached.

CO2 intensity of the fuels sold by Gunvor (per unit of energy, weighted mean)



Gunvor has limited influence on the CO2 intensity of traded fuels, as it is an intrinsic property of the fuel, determined by the carbon content.

According to scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) and the International Energy Agency (IEA), liquid and gaseous fossil fuel will still be part of the energy mix in the years to come. Gunvor is focussing on understanding and improving the CO2 intensity in the supply chain of products it trades, including during exploration, transport, and production or refining. With help of partners like CarbonChain, Gunvor is analyzing these emissions on a number of trades and a number of products.

The part of the trade upon which Gunvor has the most influence is transportation, the initial focus of the company's reduction efforts.



**Crude Oil**

The following chart displays the assessment for Gunvor's crude oil trades going to its refineries. This includes the CO2 emissions during exploration and production (at the wellhead) and transport to the refinery. The emissions during refining are not included; these are counted in the CO2 profile of refining products. Gunvor will expand the calculation to the whole lifecycle of crude oil next year.

The average emission was 0.33 tonne CO2 per tonne crude oil, but it can vary from 0.15 to 0.52. Overall, transportation counts for 12% of the emissions upstream of the refinery.

**Profile of Trade supply chain emissions**



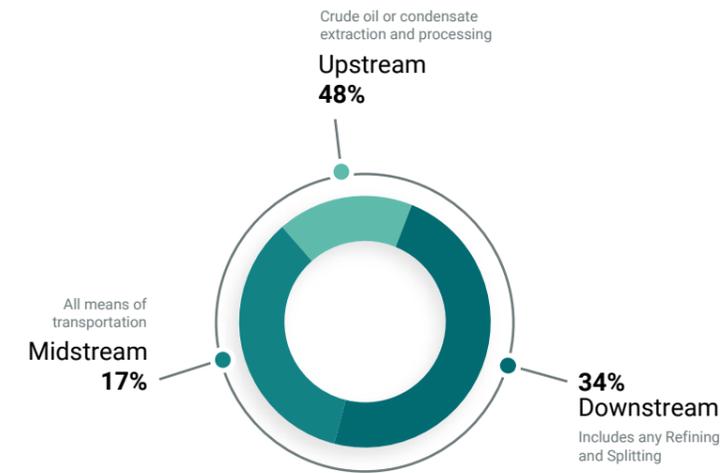
**Naphtha**

For naphtha, Gunvor here shows the emissions from origination to a client's gate, i.e., when Gunvor deliver the naphtha to a customer. The CO2 emissions in the supply chain of the considered trades were 0.67 tonne CO2 per tonne product on average, varying from 0.54 to 0.75.

Transportation accounts for 17% of the overall emissions.



**Profile of Trade supply chain emissions**



**Liquefied Natural Gas (LNG)**

For LNG, Gunvor included the whole lifecycle, from extraction and production of natural gas to combustion. The assessment for LNG is displayed in the following chart.

The average CO2 footprint, from wellhead to exhaust pipe was 3.74 tonnes of CO2 equivalent per tonne LNG and vary from 4.23 to 3.44.

Transportation accounts for 7% of the overall emissions.

**Profile of Trade supply chain emissions**



More information on LNG is provided in the related case study.

Gunvor is working on extending these assessments to other products so that it can provide customers with appropriate information on the climate sustainability of the products being traded.

## LNG Carbon Accounting

As part of Gunvor’s commitment to understanding and addressing the carbon impact and environmental risks associated with its physical trading activities, the company has been working with CarbonChain to calculate the GHG emissions for its entire LNG trade portfolio for 2020 and 2021. It was critical for this data to cover every stage of the supply chain—including source, production, transport, and combustion—to provide comprehensive insight into Gunvor’s carbon hotspots and opportunities for improvement.

After gathering and exporting Gunvor’s raw supply chain data, within three months CarbonChain produced a comprehensive supply chain carbon footprint, carbon intensity calculations for Gunvor’s LNG portfolio, and trade-by-trade and asset-level analyses.

Unlike broad-based estimates, Gunvor’s reports contain accurate and verifiable data based on CarbonChain’s independent and auditable methodology and bottom-up emissions database.

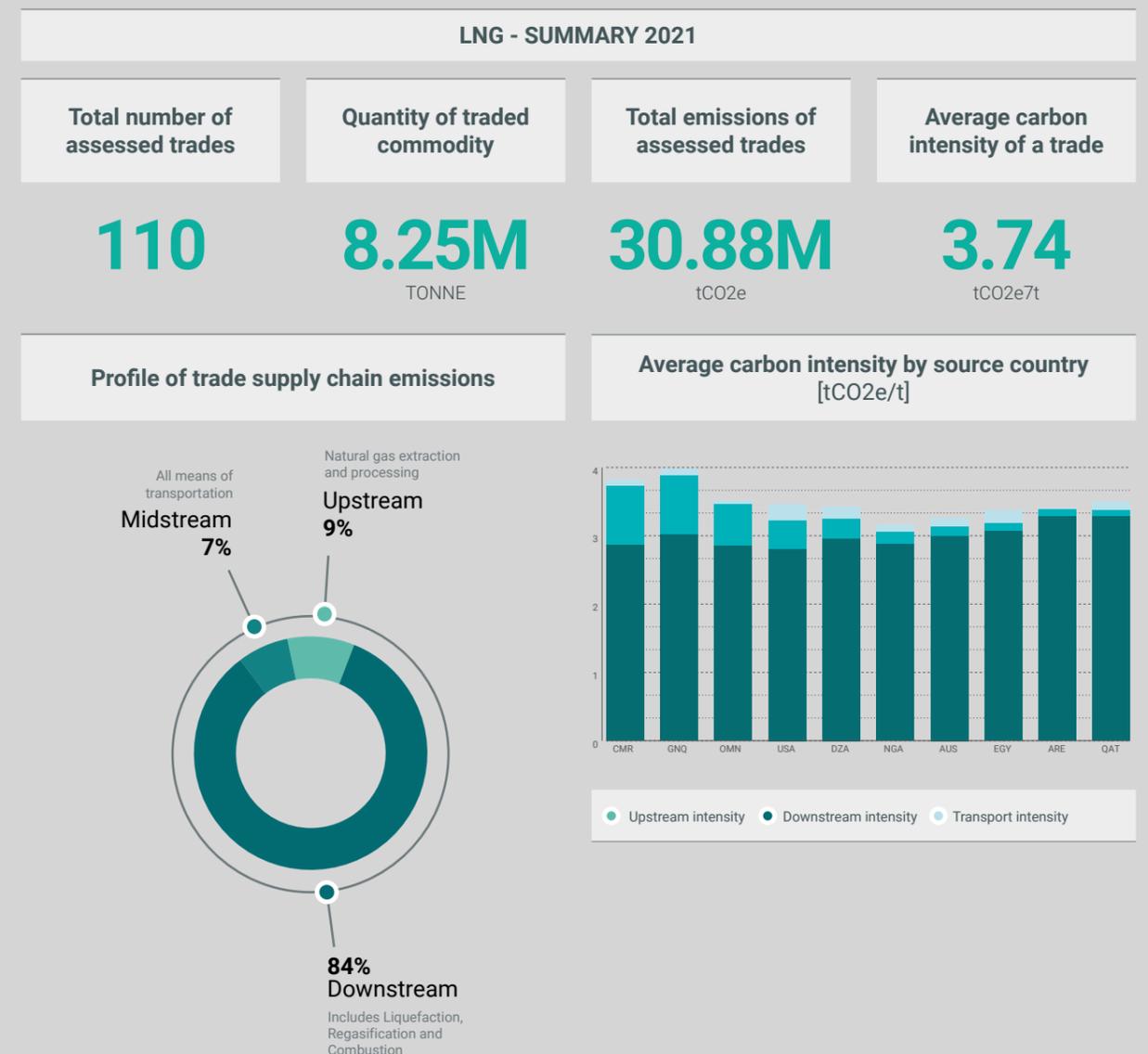
### KEY RESULTS

- In 2020, 94 trades were assessed (covering 6.80 million tonnes of LNG), and 122 in 2021 (covering 8.02 million tonnes). The emissions are broken down according to source, assets, and destination countries, with temporal analyses (quarterly and annual). Results include:
- The total emissions for Gunvor’s LNG trades in 2020 was 24.25 million tCO<sub>2</sub>e\*, compared with 30.88 million tCO<sub>2</sub>e in 2021.
- The average carbon intensity of a trade in 2020 was 3.57 tCO<sub>2</sub>e per tonne of LNG, and 3.74 in 2021.
- The downstream supply chain (including liquefaction, regasification and combustion) represents the vast majority of total emissions: 87% in 2020, and 86% in 2021.
- In 2021, Equatorial Guinea was the most carbon intensive source country (4.17 tCO<sub>2</sub>e/t compared with 3.34 CO<sub>2</sub>e/t for Nigeria, the least carbon intensive source country).
- In 2021, 52% of midstream emissions where United States is the source country were pipeline emissions; whereas 93% of midstream emissions where Qatar is the source country are shipping emissions.
- 87% of vessels (by the quantity of carried commodity) were aligned with the Sea Cargo Charter in 2020, compared with 77% in 2021.

- The breakdown of average trade carbon intensity per end customer in 2021 shows variation between 4.2 tCO<sub>2</sub>e/tLNG and 3.37 tCO<sub>2</sub>e/tLNG.

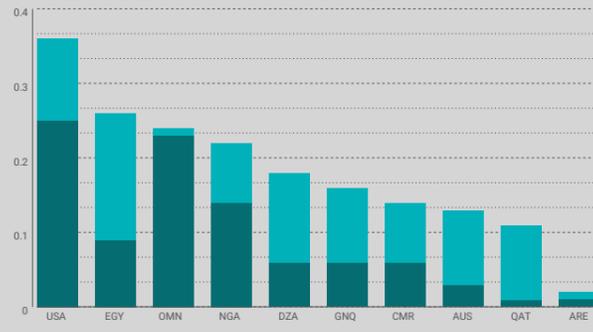
All greenhouse gas emissions represented as tonnes of carbon dioxide equivalents (tCO<sub>2</sub>e).

Ongoing accounting of Gunvor’s LNG trade emissions allows Gunvor to pinpoint legislative, reputational, and financial risk, measure progress and identify reduction opportunities. Given the notorious difficulty of obtaining emissions information for natural gas supply chains, it’s likely that Gunvor is one of the first commodity traders to have mapped out its LNG carbon footprint, risks, and opportunities at this level of granularity and accuracy.



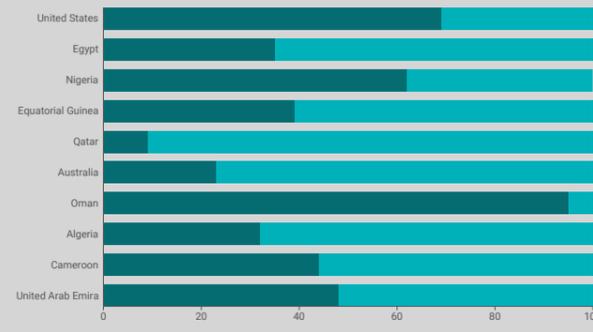
**LNG - MIDSTREAM TRANSPORTATION 2021**  
(Source countries and emissions of different transportation means)

**Midstream carbon intensity by source countries**  
[tCO2e by transport means]



● Ship ● Pipeline

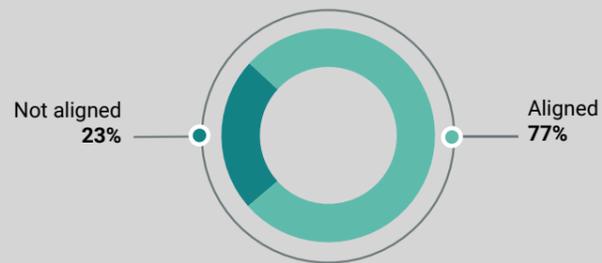
**Profile of midstream emissions by source countries**  
[% by transport means]



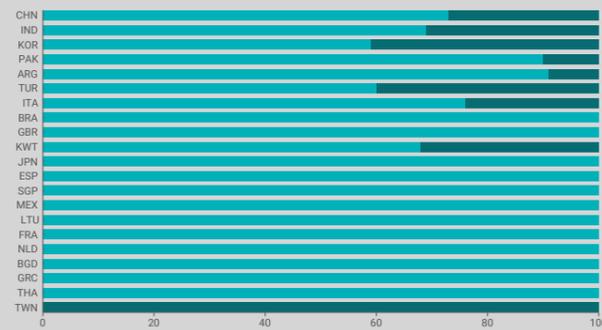
● Ship ● Pipeline

**LNG - SHIPPING PERFORMANCE - SEA CARGO CHARTER**

**Share of SCC aligned vessels**  
by the quantity of carried commodity



**Share of SCC aligned vessels by the quantity of**  
carried commodity [% by destination country]



● Aligned ● Not Aligned



**ABOUT CARBONCHAIN**

CarbonChain builds technology that enables data-driven climate action in the world's most polluting supply chains, with the purpose of accelerating the transition to a net-zero economy. The company's artificial intelligence (AI)-powered carbon accounting platform tracks supply chain greenhouse gas (GHG) emissions for companies, traders, and financiers in the commodities sectors, including metals and mining, oil and gas, and agriculture.

Founded in 2019, CarbonChain is a CDP accredited solutions provider, a TCFD supporter, and a proud member of ResponsibleSteel. CarbonChain was part of the Y Combinator Summer 2020 cohort and is supported by the UK government's innovation arm (InnovateUK), the NatWest accelerator, and the London Business School Incubator.

## NYERA

To enable Gunvor's commitments in the Energy Transition, the company established a dedicated vehicle, Nyera (Swedish: "New Era"), to formalize Energy Transition investments, which will comprise a minimum of 10% of Gunvor Group's net equity. With leverage, this investment is expected to amount to a commitment of at least half-billion dollars (USD) to new projects. Depending on partnership structures and opportunities, this will evolve over time.

Areas of immediate interest for Nyera include deployment of capital in renewable power (e.g., solar, biomass), including supporting projects through offtakes and investments. Consistent with Gunvor's overall corporate strategy, such investments will be to complement trading activities, which in this case will support the further development of the company's Power Desk.

Nyera will also explore opportunities in the alternative fuels space, such as ammonia and hydrogen, to support the commercialisation of these fuels as part of the global energy mix. Blue and green hydrogen, in particular, has the potential to be commoditized, and is an area of significant focus.

In addition, the company intends to invest in its existing infrastructure, both in terms of energy efficiency and emissions reductions initiatives, and to develop logistics and supply chain capabilities for green ammonia and green hydrogen, as well as explore the potential to increase the biofuel component in the marine fuels used by the company by leveraging on its strengths in biofuels and blending in key maritime hubs (e.g., Antwerp-Rotterdam-Amsterdam).

Ultimately, Gunvor's activities must be performed on a commercial basis, and therefore the company will be deliberate and prudent in the steps it takes to ensure a sustainable long-term model. Examples of initial investment made during 2021 include:

CCE- 4

## U.S. Renewable Natural Gas

Nyera made an equity investment in a PIPE supporting a business combination between OPAL Fuels LLC, and ArcLight Clean Transition Corp. II, to support a renewable natural gas project (RNG) in the United States. RNG is a proven low-cost, low-carbon fuel that, when used in transportation, can reduce fuel costs by 40 to 70 percent per gallon when compared to diesel fuel. These significant fuel cost savings to fleet operators are generated while dramatically reducing the total carbon footprint of heavy-duty fleets. OPAL Fuels develops RNG "Capture & Conversion" projects, which capture fugitive methane emissions from landfill sites and dairy farms and converts them to pipeline quality RNG through purification and treatment, turning once harmful greenhouse gas emissions into a clean, renewable energy source. OPAL Fuels' "Dispensing & Monetization" operations will supply this clean, renewable fuel source to heavy-duty trucking fleets with the reliability its customers demand via OPAL Fuels' national network of fueling stations, which spans 42 states and is typically backed by fueling agreements averaging 10 years in duration.

## Rotterdam Renewables

Global Energy Storage (GES) purchased an interest in part of the assets of Gunvor's Stargate Terminal and will develop more than 20 hectares at the heart of the port. The deal has been formally approved by the Port of Rotterdam Authority. GES' plans include the development of a new multi-purpose seagoing jetty, as well as developing infrastructure for:

- Consolidation of biofuel storage
- Storage for renewable fuels
- Gas storage
- Gas to chemicals production
- Green and blue hydrogen
- Hydrogen carriers such as ammonia

The project aims to become one of the largest low-carbon developments at a world-class industrial hub, with the potential to significantly reduce the carbon footprint of future business in the Port of Rotterdam. Nyera will partner with GES to further support the development of environmentally responsible projects in the port of Rotterdam.



### Rotterdam Plastics Recycling

U.S.-based material sciences company Dow has partnered with Gunvor to purify plastic waste streams in order to scale circular plastics manufacturing. For its part, Gunvor will supply cracker-ready feedstock derived from plastic waste to Dow in Europe, which will be used to produce circular plastics for customers. The purification process is necessary to ensure the pyrolysis oil feedstocks are of sufficient quality to produce new polymers. The project commenced in December 2021, and adds scale to Dow's circular polyethylene production, reclaiming more waste plastics and keeping them out of the environment.

"The agreement builds on Dow's longstanding relationship with Gunvor and leverages the economies of scale needed to bring a circular economy for plastics another step closer," said Diego Donoso, president of Dow's Packaging and Specialty Plastics business. "In addition to our efforts to design for recyclability, we are adopting advanced recycling technologies that allow us to reclaim and reuse more waste plastics that would otherwise go to waste."

### Supporting the Circular Economy in Spain

Following the acquisition of two biodiesel plants in Spain, Gunvor invested more than US \$35 million to refurbish the facilities. In 2021, the plants were inaugurated at a ceremony that included Spain's Minister of Economic Transformation, Industry, Knowledge and Universities of the Junta de Andalucía, Rogelio Velasco. At the facilities, sustainable fuels of plant origin are produced from the recovery of used oils that are transformed into biodiesel. With an annual production capacity of 110,000 million tons per year, the plants have each led to the creation of 40 direct jobs, as well as about 200 indirect jobs in the surrounding area.

In the production process, only second-generation oils are used, that is, residual oils, mainly from cooking. The circular economy model incorporates residual products into the value chain, reducing the environmental impact that their elimination would entail. Through its recycling, biodiesel is obtained, and when mixed with diesel, can be used as fuel for vehicles. In addition, other by-products are created at the Gunvor plant, such as glycerin, for pharmaceutical or cosmetic uses, and salts used in the manufacture of fertilizers.




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## Financing

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Building upon the company's history as the first energy commodities trading company to secure a financing in which the interest rate was tied to the fulfilment of Key Performance Indicators (KPIs) in the areas of transparency, governance and environment, Gunvor further expanded its sustainability-linked approach in 2021.

For the first time, Gunvor introduced environment, social, and governance (ESG) KPIs into its flagship corporate facility, the European Revolving Credit Facility. The company also updated its sustainability-linked refinery borrowing bases, and worked with its banking partners to create innovative financing solutions to promote the trading "transitional" commodities, such as liquefied natural gas (LNG).

This expansion demonstrates Gunvor's strong commitment to improve the environmental impact of its current trading operations and to invest in new sustainable commodities and businesses. The company continues to work with its banking partners to find new ways to incorporate its sustainability goals within its funding base.

### **New ESG-Linked European Revolving Credit Facility**

The new structure for Gunvor's European RCF, which has been renewed now for 11 consecutive years, consists of four KPIs that will be annually tested and externally verified. They relate to the reduction of scope 1 and 2 emissions; the improvement of energy efficiency of the shipping fleet and reduction of scope 3 emissions; the investment into non fossil fuel projects; and the assessment of the Gunvor's assets and joint ventures against Human Right principles.

The sustainability KPIs are fully aligned with the company's Energy Transition commitments and reinforce Gunvor's resilient funding model to pave the way for further global growth ahead.

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### Refinery Borrowing Base Facility Update

In 2020, the borrowing base facility for the Antwerp and Rotterdam refineries was discontinued, following the mothballing of the Antwerp facility and the shuttering of the Rotterdam facility's crude distillation units. However, in June 2021, Gunvor successfully refinanced its borrowing base facility in respect of the Ingolstadt refinery, with pricing linked to the sustainability performance of the refinery.

The borrowing base includes key performance indicators for: air emissions, oil spills, complaints on emissions effluents and waste events, employee safety measures and employee fatality. Once again, the interest rate is tied to the company's ability to perform on the designated KPIs. Related savings from the potentially lower interest rate will be used to support the Gunvor Foundation, the company's not-for-profit entity dedicated to philanthropic activity. The Group is currently exploring additional opportunities for sustainable financing.

### Innovative LNG Borrowing Base

LNG is recognized under the European Taxonomy as a "transitional" fuel, which acknowledges its role as a bridge to a low-to-no carbon future. As the largest independent trader of LNG worldwide, Gunvor has been working with its banking partners to identify new and innovative financing solutions to support increased LNG trading, all while addressing the emissions limitations of this source of energy.

In December 2021, Gunvor signed a new syndicated borrowing base facility to support the working capital needs of the company's growing LNG activities globally. The syndication launched at US \$800 million and was oversubscribed following strong appetite from the market and closed at US \$1.135 billion. The facility, structured around global LNG trade flows including Gunvor's shipping activities, finances physical and derivative positions. As a part of the facility, Gunvor has committed to CO2 carbon emissions reporting to establish transparency for the carbon footprint of the company's LNG value chain.



***The successful syndication of this facility, a first of its kind for LNG trading, reflects the strong interest of banks to support responsible participants in the growing global LNG market, one of the main enablers of the Energy Transition.***

— Rabobank

### FRAMEWORK

We are working evermore intensively with our banking partners globally to develop sustainability linked facilities. To facilitate discussions from all our locations in a consistent fashion, we have developed a framework aligned with our sustainability strategy. This allows all our teams to establish innovative facilities aligned with local specificities and our global ambition and commitment.



***We are proud to accompany Gunvor in this landmark transaction. This new LNG borrowing base embodies Gunvor's long-term strategic move to support transitional commodities that enable the Energy Transition to a low carbon future.***

— Societe Generale

## Framework

### • NAVIGATING THE ENERGY TRANSITION

<p><b>SCOPE 1 &amp; 2</b></p> 	<ul style="list-style-type: none"> <li>To cut scope 1 &amp; 2 emissions 35% by 2024</li> <li>Commit to taking significant steps to reduce and/or compensate scope 1 and 2 emissions by 35% and 95%, respectively, by 2025, compared to 2019</li> </ul>	<p>By 2025, Scope 1: 35% reduction Scope 2: 95% reduction</p>
<p><b>SCOPE 3 &amp; ECO-VESSELS SHIPPING FLEET</b></p> 	<ul style="list-style-type: none"> <li>Commit to follow the IMO improvement strategy to achieve the 40% reduction in carbon intensity by 2030 for traded commodities and voyage charters</li> <li>100% of owned ships and 75% of time chartered (TC) fleet will be "eco-vessels" by 2022, with an overall 100% before 2027</li> <li>Commit to setting targets on overall Scope 3 reporting and reduction</li> </ul>	<p>By 2030, 40% improvement of Shipping Efficiency</p> 
<p><b>SUSTAINABLE INVESTMENTS</b></p> 	<ul style="list-style-type: none"> <li>Established a dedicated vehicle "Nyera" to formalize nonhydrocarbon investments</li> <li>New entity to target sustainable investments in renewables (renewable fuels and power), carbon capture and storage and alternative fuels (ammonia and hydrogen)</li> </ul>	<p>New Nyera entity 10% of net equity</p>

### • RESPECTING AND PROMOTING HUMAN RIGHTS

<p><b>HUMAN RIGHTS ASSESSMENTS</b></p> 	<ul style="list-style-type: none"> <li>To assess all its majority-owned and joint-venture assets on Human Rights</li> <li>To undertake HSEC impact and due diligence assessment in line with the Group's commitment to the UNGPs on Business &amp; Human Rights</li> </ul>	<p>By 2025, All majority-owned assets and Joint Ventures assessed on Human Rights risks</p>
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\* "Eco" vessels are ships meeting standards for design, construction and operation beyond statutory requirements and translated into class notation. Ref: <https://www.lr.org/en/eco-notation/>

## European RCF

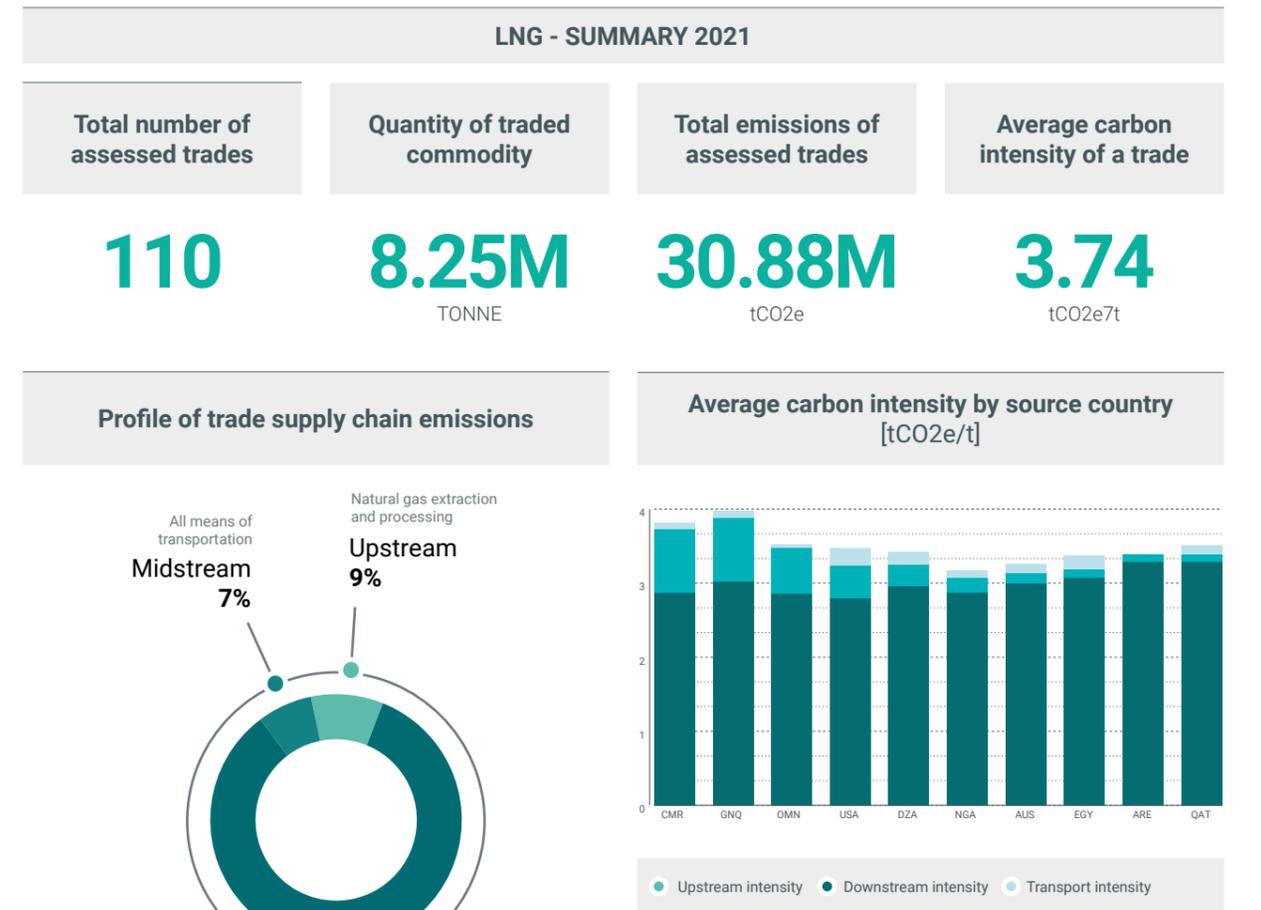
- A comprehensive set of core, material, ambitious and meaningful KPIs covering climate, energy transition and human rights
- Aligned with overall sustainability commitments of Gunvor, first adopted in the ERCF in November 2021
- All KPIs are annually reviewed and verified by external auditors

#	Themes	KPIs	Sustainability targets
CLIMATE	KPI - 1 GHG EMISSIONS – SCOPE 1 & 2	✓ % of reduction of scope 1 and 2 emissions	✓ Yearly milestones of emissions reduction : -25% by 2022, -30% by 2023, -35% by 2024
	KPI - 2 GHG EMISSIONS – SCOPE 3	✓ Improvement of energy efficiency of Time Chartered shipping fleets ✓ % of reduction of scope 3	✓ By 2022, reach 75% of "eco-vessels" within Time Chartered shipping fleet and define reduction target on vessel emissions to be reached in 2023 and 2024 ✓ By 2023, set Scope 3 reduction target to be reached in 2024
	KPI - 3 SUSTAINABLE INVESTMENTS	✓ Reach the sustainable investment target into diversification activities	✓ By 2023, reach \$100mn of sustainable investment ✓ By 2024, reach \$200mn of sustainable investment (10% of Group's net equity)
HUMAN RIGHTS	KPI - 4 HUMAN RIGHTS ASSESSMENTS	✓ Assess all sites and JVs of the Group on Human Rights Principles and develop a corrective action plan when necessary	✓ By 2024, conduct an assessment of Human Rights in Gunvor's 5 JVs (Monte Alegre, Signal Peak, Ust Luga Oil, Sandmark Operations, Karimun) and carry out the assessment of any new site/JV within 6 months ** ✓ Intermediate milestones: 2 JVs assessed by 2022, 2 additional JVs by 2023, and 1 additional JV assessed by 2024

Eco vessels: "eco" vessels are ships meeting standards for design, construction and operation beyond statutory requirements and translated into class notation from Lloyd's Register. Ref: <https://www.lr.org/en/eco-notation/> \*\* All sites (Gunvor owned) have already been assessed

## LNG Borrowing Base

In the context of the LNG borrowing base, we committed to publish the results of our carbon accounting exercise. They are shown below.





## Human Rights & Transparency

### 🎯 2021 Objectives

- ✓ Finalize joint venture (JV) toolkit and pilot assessment
- ✓ Carry out high level assessments on JVs where Gunvor owns more than 25%
- ✓ Include Human Rights in supplier assessment tools
- ✓ Include Human Rights in all recurring HSEC audits

### 🎯 2022 Objectives

- 🕒 Assess two JVs
- 🕒 Improve specific due diligence processes on child labor
- 🕒 Strengthen due diligence process along the supply chain

Gunvor assigns the highest priority to respecting and promoting Human Rights across all of its activities. The company aims to treat everyone fairly, with respect and dignity, and is committed to respecting all internationally recognized Human Rights. Gunvor recognizes that its activities may positively or adversely impact Human Rights conditions in areas where it operates and is committed to identify and assess those adverse impacts and take action towards improvement.

Since 2018, Gunvor has been working to implement the United Nations Guiding Principles on Business and Human Rights and has made significant progress in strengthening the company's processes, with the help of its partner twentyfifty (see case study, page 80).

Gunvor has now embedded Human Rights in its Code of Conduct, training, vetting, Know Your Counterparty (KYC) and contracting processes, and the company is working on identifying, assessing, and remediating adverse impacts at different levels of control in its assets and supply chain. Gunvor continues to make steady progress and remains on track with its defined plan.

## SOC - 1

## Identifying & Assessing Adverse Impacts

Gunvor's approach to identifying and assessing adverse impacts relies on various tools, including systematic direct assessments of the company's assets and JVs, along with online screenings for counterparties, followed by specific assessments, where relevant.

As permitted under the constraints of the Covid-19 pandemic, Gunvor reviewed the assessments carried out on its assets, with site visits to allow for confirmation of analyses carried out remotely last year.

In addition to the assessment that was carried out at one of the company's JVs as a basis of the development of Gunvor's toolkit for JV assessment (see last year's report), twentyfifty has undertaken a high-level assessment to identify JVs with potential issues to be assessed as a priority. Gunvor's partners will be assessed accordingly in the coming years.

In general, Gunvor's initial assessment of potential adverse impact of its counterparties is based on the country of operations, the industry, and the past activity of the potential partner. This initial screening can lead to further enquiries on one step of the supply chain. Those are sent to the counterparty for clarification and conclusions.

At Gunvor's assets, specific processes are in place to assess the company's supply chain, as described in a dedicated case study in this report. Gunvor Petroleum Rotterdam (GPR) has implemented this process, which is now being replicated in all assets.

In addition to the proactive steps carried out to identify adverse impacts, some events are communicated to the company by ways of different grievance mechanisms, including:

- Direct communication channels via dialogue, email, or phone calls
- Direct reporting systems through designated "trusted people" onsite
- Complaints systems at assets for external parties
- Communications process to Human Resources at all sites
- Whistleblowing process
- Contact form via Gunvor's website

All reports are duly analyzed and managed by the appropriate person internally, possibly treated as an incident, and entered into the formal remediation process if any issue is salient.

## Cease, Prevent, or Mitigate

Beyond issues related to the Covid-19 pandemic, which continued from 2020 and were covered in last year's edition of this report, Gunvor identified and is addressing the following issues:

### "Trusted" Persons

At all Gunvor assets, "trusted" persons are available for staff and contractors to report any issue they may have at the workplace. These designated individuals are neutral and trained to help anyone solve their issues, either through witnessing conversations with management, reporting to management in place of a person to maintain confidentiality, or advising external support.

Due to changes in teams and absences related to Covid-19, on some assets an insufficient number of trust people were available during the year, meaning that part of the staff had their supervisors act as trust people, or certain shifts would not have anyone onsite during their shift. Instead, volunteers were identified and trained on the necessary teams, shifts, and at the appropriate level to ensure equal access to a trust person.

### Seafarers' Rights

As a commercial operator, Gunvor does not manage directly the crews that work on the vessels it charters, but the company remains vigilant about oversight of these workers. Gunvor has signed the Neptune Declaration on Seafarer Wellbeing and Crew Change and formally communicated its expectations to the technical operators, technical managers, and shipowners with which the company works.

Gunvor is further working to promote the Code of Conduct for seafarers as developed by the Sustainable Shipping Initiative, and will assess systematic access to grievance mechanisms for crews on chartered vessels. Gunvor has also taken steps to cease business with counterparties following Human Rights issues identified during assessments, for which a satisfactory solution could not be reached.

## SOC - 2

***The Neptune Declaration on Seafarer Wellbeing and Crew Change aims to promote and protect the welfare of seafarers. It was launched in response to the crew change crisis, which has resulted in approximately 400,000 seafarers stranded on ships because of Covid-19-related travel bans.***



## Supply Chain Management at GPR

By Turnaround Contracting Coordinator in GPR

The Netherlands is a highly regulated country where Human Rights infringements are not likely to occur. However, we are always cautious when prequalifying new contractors and vendors, especially from countries other than The Netherlands.

For contractors (both domestic and foreign), we always use a prequalification form. We assess the amount and type of works that they subcontract. Among other questions, we directly ask about their policies on Corporate Social Responsibility, and Alcohol and Drugs. Further, we indirectly assess the companies "social health" by asking about their absence percentage and staff turnover rate.

When we are tendering large contracts (e.g., for a turnaround project), we make sure to visit the company's headquarters and connect with senior management. If prefabrication in their local workshop is part of the contract, we insist on visiting the shop to check on local working conditions, HSE awareness and compliance, and employment status of the workforce.

When contractor employees are required to spend longer periods abroad (in The Netherlands), we discuss and check up on temporary housing conditions.



Of course, the amount of time and effort we spend on the prequalification and selection process can vary according to expected risk exposure and contract value. In general, the steps in the prequalification and selection process are:

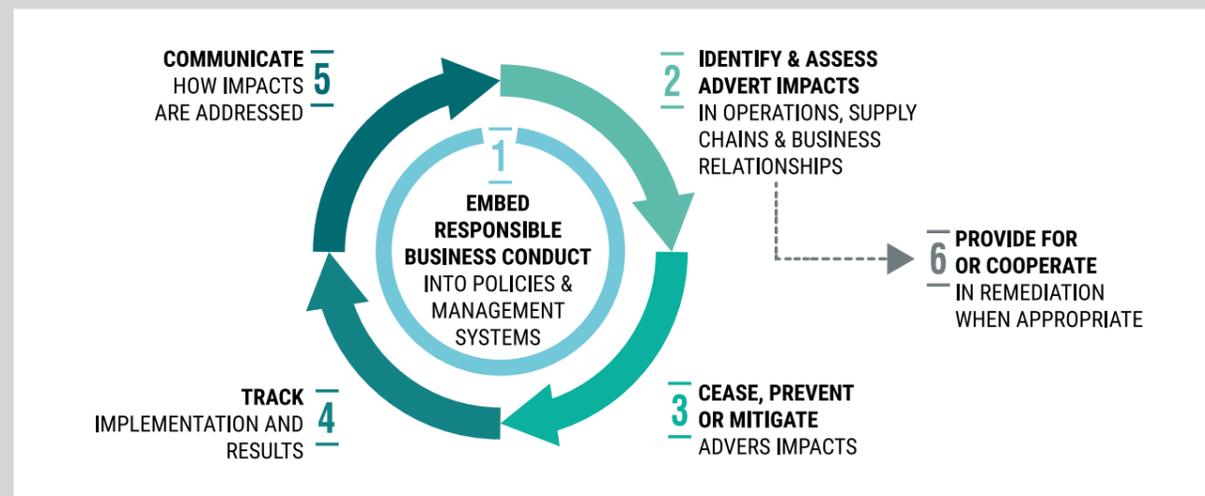
- Draft contracting strategy based on determination of scope, volume, timing
- Determine long list based on experience and desktop research
- Send out Request for Information (RFI)
- Analyse received information
- Finalise contracting strategy
- Compile short list
- Send out Request for Quotation (RFQ) including draft contract
- Analyse bids (separate technical, commercial and legal assessment)
- Arrange bid clarification meeting (preferably at contractor's HQ including visit prefabrication shop)
- Finalise bid evaluation and tabulation
- Determine recommendation
- Presentation of tender results and recommendation to Tender and Contracting board (TCB)
- Formal decision by TCB, when needed further escalation to GSA
- Contract award



## Gunvor's Human Rights Journey

Since 2018, Gunvor has been making continuous progress with its Human Rights program, from the implementation of basic Human Rights checks in HSEC assessments to improved alignment with international standards. By also following the Swiss Confederation's "Guidance on Implementing the UN Guiding Principles on Business and Human Rights for the Commodity Trading Sector", the company has considerably strengthened its Human Rights due diligence.

Gunvor's approach, with the support of twentyfifty, has sought to recognize the realities faced by an international commodities trading business, its different types of transactions, and its many counterparties.



Due Diligence process, OECD Due diligence guidance for Responsible Business Conduct

Gunvor first commissioned twentyfifty to undertake a gap analysis against the UN Guiding Principles on Business and Human Rights (UNGPs), incorporating a site assessment at the company's refinery in Igolstadt, Germany. The gap analysis and site assessment provided the impetus for committing to the UNGPs and embedding Human Rights into the business.

Human Rights expectations have been further formalized in the company's Code of Conduct, its contracts, and its public reporting. The HSEC Committee, which involve the most senior executives in the company, takes an active role in monitoring progress on Human Rights.

Beyond formalizing the commitments and the governance on Human Rights, the core of the work has been on risk identification, prevention, and mitigation measures. Now:

- All counterparties have a Human Rights check at the onboarding stage and are regularly monitored (via risk management providers) on Human Rights topics by the Compliance Team
- Controlled assets are assessed against an Human Rights Due Diligence (HRDD) framework and have management systems in place to identify and address their most critical issues and report against a set of relevant Human rights KPIs
- On a prioritized basis, JVs are risk-assessed and reviewed against a HRDD framework and monitored against a set of Human Rights KPIs
- A process has been defined for responding to and, if necessary, determining remediation of adverse Human Rights impacts

These improvements have been complemented by training initiatives, either dedicated to specific teams (such as Compliance) or to all Gunvor employees, with Human Rights included into the company's annual training programs.



By Luke Wilde at twentyfifty



GOV - 5

In the fast-paced world of energy trading, one of the key challenges for Gunvor is to find practical ways that keep the attention on Human Rights risk in the transaction cycle.

In terms of tracking and communicating, there have been significant improvements since the start of our collaboration with Gunvor and an openness to talk both about achievements and also about the challenges of implementing the Human Rights Due Diligence (HRDD) process.

In terms of remediation, appropriate grievance mechanisms are available to employees and communities around controlled assets and JVs, even though more work will be required on this front. Regular checks of these grievance mechanisms take place to ensure they are fit for purpose.

In the last four years, Gunvor has demonstrated its genuine commitment to improving its HRDD activities, well before the introduction of new non-financial reporting and due diligence obligations in Switzerland in December 2021.

Implementing proper due diligence is a process of continuous improvement in a multi-faceted and fast-moving business like Gunvor. Ensuring that HRDD continues to be embedded in all aspects of the business, in current and future activities, remains the focus for the company.



## Payments to Governments

Gunvor Group supports the Extractive Industries Transparency Initiative (EITI), which implements the global standard to promote the open and accountable management of oil, natural gas, and mineral resources. The EITI Standard, predominantly applied to extractive companies, requires the disclosure of information along the extractive industry value chain, beginning from the point of extraction, along to how revenues make their way through governments, and then how they benefit the public. Gunvor is one of three physical energy trading companies to participate with respect to purchases of crude oil and oil products.

EITI seeks to strengthen public and corporate governance, promote understanding of natural resource management, and provide the data to inform reforms for greater transparency and accountability in the extractives sector. In each of the 55 implementing countries, the EITI is supported by a coalition of government, companies, and civil society. Gunvor views this approach as consistent means by which to reliably report on our company's payments to governments, with the aim to improve transparency and reduce the potential for corruption in cooperation with these governments.

Gunvor's reporting includes purchases of crude oil and refined oil products acquired from state-owned enterprises (SOEs) in EITI implementing countries. Governments of EITI countries must hold a majority stake (more than 50%) in the respective SOEs. Payments and volumes are aggregated under the parent company. Volume information is presented as available. Given the complexity of transaction types and variety of data involved in these purchases, Gunvor continues to work closely with EITI, relevant trading peers, and other transparency related organisations to improve disclosures going forward.

Gunvor has maintained its disclosure consistent with previous years, while adding data related to port of origin and grade. Additional tax information will be provided with the full EITI disclosure.

**“ Gunvor's support for the EITI reflects our commitment as a trading house to uphold progressive policies and practices in the oil and gas sector. As one of the largest physical energy trading companies in the world, we recognize we have role in promoting transparency and accountability. The EITI helps us accomplish this in a commercially responsible manner. —Torbjörn Törnqvist, CEO of Gunvor Group**

Payments to Governments Disclosure 2021							
Country	Counterparty	Load Port Country	Port	Buying Entity	Commodity	Payments (USD)	Volumes (MT)
<b>EITI countries</b>							
Colombia	Ecopetrol S.A.	Colombia	Barranquilla	Gunvor SA	Bitumen	9 051 624.59	25 593.95
Kazakhstan	KazMunayGas Trading AG	Romania	Midia	Gunvor SA	Gasoline	9 246 414.89	15 076.25
Mexico	P.M.I. Trading Designated Activity Company	Mexico	Mexico	Gunvor SA	Fuel Oil	50 878 449.16	154 803.93
Nigeria	Nigerian National Petroleum Corporation	Nigeria	Escravos, Qua Iboe	Gunvor International B.V., Amsterdam, Geneva Branch	Crude Qua Iboe, Escravos	199 059 417.24	380 949.25
<b>Total: EITI countries</b>						268 235 905.88	576 423.38
<b>Aggregate purchases from SOEs of EITI countries, whereby volumes may not represent equity oil and refined products</b>							
N/A	N/A	N/A			Crude Oil, Refined Products	393 555 260.40	2 991 388.57
<b>Aggregate purchases from SOEs of non-EITI countries</b>							
N/A	N/A	N/A			Crude Oil, Refined Products	8 905 027 646.57	34 803 300.18
<b>Total: All countries</b>						9 566 818 812.85	38 371 112.13

## Communities Gunvor Foundation

SOC - 13

Gunvor Foundation provides scholarships, grants, and donations for initiatives that further the mission of empowering individuals to contribute meaningfully to the development of healthy communities, the reduction of poverty, and the improvement of environmental conditions on local and global levels.

To uphold its place as a responsible corporate citizen, Gunvor since its founding in 2000 has annually allocated a portion of its net profit to charitable activities. To keep up with the growth of Gunvor's efforts, the Gunvor Foundation was established to formalize the structure and direction of these philanthropic programs.

Each initiative supported by the Gunvor Foundation is fully vetted to comply with Foundation standards and local and international laws governing financing and philanthropic giving. The goal is to support initiatives and programs that have a practical positive effect on the local community in which the initiative is being conducted.

The Gunvor Foundation Committee oversees all donations across the Group in line with the mandate given by the Foundation Council and ensures that internal criteria are met in each case. A percentage of funding is dedicated to Switzerland-based charities.

- Hand in Hand International
- Health Poverty Action
- Child's Dream
- Mercy Ships
- Graine de vie
- Swiss Green projects
- Fundação Gol de Letra



## A Letter from Mombasa

Dear Gunvor Foundation,

Greetings from Kenya, as I am just about to take off. I had the chance to visit the Ocean Waste recycling project in Mombasa which the Gunvor Foundation is co-funding. 13 months in, the project has reached 70 of the 185 groups it is planning to support. I met one of these groups in their neighbourhood of Burukenge: an illegal settlement, rife with cholera and typhus, where some 500 families squeeze into a tight space between the ocean shore, a high-end residence and a wastewater pipeline.

What is remarkable in the photo of the area below is what is missing: there is no litter lying around thanks to the efforts of the Burukenge Pomoja ("Together") group.

The group of 15 was trained by Hand in Hand some four months ago in "waste as a business": how to collect, sort, process plastic waste and what prices they can negotiate with local plastic processors.

This already earns them \$190 a month, which increases their individual incomes by around 20%, as waste management tops up income from their "day jobs". Anthony, pictured below, is the youngest member of the group.

The group's income is set to increase as they plan to invest in a plastic crushing tool from their savings, which will reduce waste volume, making it less costly to transport.

In three months, they have already prevented 1,300 kilos of waste from ending up in the neighbouring ocean (see records below)

At the other end of the spectrum I met with Dr. Nato, minister for environment, waste and materials in the county government of Mombasa. An energetic technocrat, he has set himself the ambitious mission of recycling every one of the 80-130 tonnes of plastic which the city generates per day. We visited the first large scale recycling centre in the city which he is currently building with county funds. The centre will be supplied by plastic collectors just like the Burukenge group.

Dr. Nato set the local Hand in Hand team a challenge. He encouraged us to start your project in Likoni, a tough inner-city neighbourhood. 'I thought that if they could succeed there, they would succeed anywhere in this city'. Today, half of the groups trained by your project come from Likoni.

Success and scale in waste management will come from aggregation, both at supply and demand side of the value chain. In addition to the six recycling centres the project will build, it is also excellent news that the first ever waste recycling cooperative in Mombasa, assembling around 400 founding members, was registered last Friday thanks to the Hand in Hand team.

Thank you so much for your contribution to this important project, which I hope you can go and visit sometime yourselves.

Dorothea Arndt | CEO | Hand in Hand International

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## COMPLIANCE

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During the last decade, Gunvor has spent millions of dollars building an industry-leading Compliance Department. Our teams work continuously to improve company procedures to mitigate risks and anticipate others that exist within the commodities trading sector. Our goal is to maintain the highest ethical standards and comply with all relevant rules and regulations wherever we operate.

Gunvor's Compliance Department is bound by strong corporate governance, which provides a robust process for identifying risks and sound oversight to ensure effective risk mitigation. The Group Compliance Committee (GCC) serves as the main point of accountability for the Group's Compliance activities. The GCC includes senior members of Gunvor's Executive Committee, as well as representatives from Legal and Compliance. It reviews all aspects of the Compliance risk mitigation plan and acts as a point of escalation.

Gunvor Compliance Department oversees all of Gunvor Group's operations, ensuring that all activities are conducted within the requirements of applicable laws, regulations and Gunvor's own principles of Ethics and Integrity as stipulated in the Code of Conduct & Ethics.

As a fully integrated risk management department within Gunvor, the Compliance Department operates control systems, which allow Gunvor to identify and effectively manage compliance risks in a timely manner.

The Gunvor Compliance Department is staffed by 17 professionals from Finance and Corporate backgrounds. They provide Gunvor with the best advice and risk management, drawn from a very broad knowledge and experience base.

As Gunvor has an existing, well established, Compliance programme, the Compliance department continues to reassess the risks and mitigation processes to ensure the most optimal risk mitigation and adapts quickly to changing business needs.

For more information on our compliance governance framework, please visit <https://compliance.gunvorgroup.com>

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## Gunvor Compliance Year in Numbers

**17** – Number of people in the Compliance department, which is now established globally.

**1,152** – Number of new business counterparties approved by the Compliance department in 2021.

**26,740** – Number of counterparties and associated entities and individuals screened on a typical day. All of Gunvor's business counterparties, plus their parent entities and associated individuals are screened daily through external vendor systems.

## 2021 Compliance Programme in Focus

In 2021, the Compliance department continued to apply, review and reinforce the Know Your Counterparty (KYC) and Anti Bribery and Corruption (ABC) programme. It involved investing in training internally and externally the Compliance team, spending the time in learning from past cases to improve the quality and consistency of the due diligence. Managing both the quantity and the quality of the due diligence to be performed is a main goal for Gunvor Compliance.

## Anti-Bribery & Corruption / Anti-Money Laundering Compliance

### ANTI-BRIBERY & CORRUPTION

As a company active in the global commodities markets, bribery & corruption and money laundering remain amongst the top risks to the company and as such have a high proportion of resources dedicated to it.

In 2020, as a part of Gunvor's efforts to continuously improve procedures in order to mitigate risk across the company, specifically in relation to areas of Compliance, the company had taken the decision to cease the use of "agents", i.e., consultants and intermediaries, for business origination and development purposes. Gunvor had already started since 2017 and 2018 to significantly reduce the number of such consultants and intermediaries.

Today, Gunvor only works with a few consultants that only provide post-transaction or ancillary support, such as technical operational service providers, whose services entail greater transparency and a different, lower risk profile. Gunvor maintains strict controls on these consultants to ensure they don't provide any origination or business development related service, in addition to the compliance protocols previously implemented (including inter alia enhanced due diligence, strict contractual framework and invoice control, monitoring of fees, review of activity reports, compliance training).

In 2021 Gunvor Compliance also reinforced its joint-venture procedures to ensure the right review and monitoring are being done.

### COUNTERPARTY DUE DILIGENCE

2019 and 2020 saw the completion of the project to link all Gunvor's principal trading and operational systems to the central Compliance Counterparty Management System (CMS), and Compliance is working on linking the remaining minor systems, which represent a negligible percentage of the Gunvor business. All counterparty due diligence is centralised in a single compliance controlled system ensuring uniformity of processes, oversight and control.

Gunvor continues to push forwards with more automated and sophisticated controls, with improved on-going screening tools via an API connected with CMS.

### SANCTIONS

As a significant participant in the global commodities markets, Gunvor takes its sanctions obligations very seriously. Throughout the counterparty due diligence process, sanctions checks are carried out, through third party systems and via Gunvor own internal processes. On a daily basis, Gunvor sends all its active business counterparties, including relevant associated individuals and parent entities, to an external vendor to conduct daily screening, which includes sanctions issues. Gunvor continues to ensure awareness of sanctions issues across all its teams through the annual compliance training.

### VESSEL SCREENING

Gunvor continues to work closely with PoleStar in relation to vessel screening. The PurpleTrac system is fully integrated within our CMS system, leveraging the interface and escalation technology already in place. On any one single day, Gunvor's Chartering teams screen approximately 15 vessels.

Since 2019, Gunvor has expanded its screening to vessels used but not chartered by Gunvor, such as Gunvor's FOB purchases and CIF/CFR sales. Gunvor's system integration allows easy increase in screenings, providing additional risk mitigation at little or no cost to the Gunvor business.

### MARKETS COMPLIANCE

Gunvor continues to enhance its Advisory Compliance team and has hired experienced professionals in a number of offices. Its Advisory Compliance capabilities grow via systems implementation projects and by hiring new members for the Advisory Compliance team.

2021 saw the Advisory Compliance team continue to improve and enhance the existing compliance programme relating specifically to Gunvor's trading activities. In addition to be located on all Gunvor's main trading floors, the Advisory compliance team are always looking to increase visibility and knowledge of Market Abuse related issues.

### REGULATORY ENGAGEMENT

As a participant in the global physical and financial markets, it is important Gunvor participates in the debates and discussions, to ensure the continued orderly functioning of the markets. Gunvor participates in industry bodies, as we see this as the best method to achieve meaningful engagement. Gunvor is presently a member of ISDA, EFET, STSA and CMCE, as well as its direct representation to relevant regulatory and governing organisations.



## *The Evolution of Training*

From September to the end of each year, Gunvor's Compliance Team undertakes its annual mandatory employee training and review for all relevant employees. More than 800 individuals participated in the courses in 2021, representing 100% of those who require such training.

While each year, the rhythm of this exercise is the same—four months of updates and reviews for existing employees—during the eight intervening months, Gunvor's Compliance team works hard to continuously evolve their presentations and train new joiners. The world of Compliance is ever evolving, so must our approach to it.

Across the world, governments and regulatory bodies are forever refining and adjusting how they treat various aspects of commodities trading—a global business that operates across many various sectors, industries, and jurisdictions, not to mention myriad customs and cultures. While the basic rules do not change, there are always new areas to cover.

The physical and financial energy traded markets are subject to regulatory oversight from many different organisations. The main oil futures contracts are heavily traded on ICE and CME by a variety of different participants, including the oil majors, trading houses and hedge funds. Paper or physical trading of natural gas, power, or LNG in the EU or UK may require potential licensing and notification requirements. Biofuel trading requires sourcing oversight in certain Asian jurisdictions. Our European oil refineries further have their own strict regulations.

Therefore, a great deal of preparation is undertaken to collect the latest, most relevant Compliance examples, such as updates to sanctions, market rules, and relevant case law. All industries regularly see new examples of companies under the spotlight for non-compliance with applicable laws and regulations. We look at the latest fines and penalties, as well as the positive outcomes. More nuanced even is keeping track of the changes in market expectations. Our team holds regular discussions with all our relevant stakeholders, including governments and NGOs, industry working groups, our partners, and our banks. Although not subject to all the regulations that apply to banks, we do need to ensure we continue to comply with the evolving industry standards and best practices.

There is further a great deal of debate within the Compliance Team about what examples to use for our employees. The challenge is to find the right balance between showing the effects of what happens when the rules are not followed, while not overwhelming in such a way to be counterproductive. Our imperative is to show what the risk really is for the company and for individuals, when there are breaches of policies and values. It is not about saying the same thing the same ways every time.

Training consists of 90-minute, face-to-face meetings, which can be of more than a dozen people, if they are back-office staff, or just a handful, if the group consists of traders or operators. As a result of the practical impacts of the pandemic, we have enhanced our online training tools and video conferencing options; however, employees are followed up in person, and every new trader hired by Gunvor must meet in person with our Compliance Team.

We feature several senior speakers, including the Head of Advisory Compliance and Head of Anti-Bribery & Corruption, as well as regional compliance voices from areas like Singapore and Houston. With the Compliance team growing to almost 20 staff members worldwide, we can share many viewpoints—which are encouraged.

Our training sessions are Socratic in nature, usually entailing lively debate and discussion. These sessions get into the nitty gritty of topics with lively conversation—from details about what is required for the Know Your Customer (KYC) process, or about structuring joint ventures, or the company's policy to not use agents for business origination. The goal is to ensure every participant is actively engaged. We can see the results.

In 2021, Gunvor's Global Head of HSEC presented a new training on Human Rights assessment and the relevance of the topic for Gunvor. The Compliance team itself had already been specifically trained on Human Rights, and now we have expanded company-wide. Even before implementation of the Human Rights module, Gunvor has stopped working with or not reactivated certain counterparties as result of their Human Rights infringements, including allegations related to child labor, or environmental issues, as with palm oil, which impacts local communities.

The never-ending process of Compliance training may seem daunting, but what underpins Gunvor's approach is the Golden Rule of "speaking up," so that all employees know that the Compliance team is open and available to them for any questions – and that is why Gunvor Compliance is seating in the middle of open spaces with the traders and other back-office functions. It is about building a culture of understanding, for the betterment of our employees and our business.

#### TOPICS COVERED IN GUNVOR'S ANNUAL MANDATORY COMPLIANCE TRAINING

- Code of Conduct & Ethics
- Anti-Money Laundering
- Golden Rules of "Know Your Customer"
- Counterparty Management System
- Anti-Bribery & Corruption (with a focus on third-party risk)
- Gifts & Entertainment
- Sanctions, Vessel screening
- Conflicts of Interest
- Market Conduct
- Information Barriers & Insider Trading
- Communications
- Internal Controls
- Escalation
- Whistleblowing & Non-retaliation
- Human Rights



# Basis for Reporting

Given that there are different international standards and guidance documents for sustainability reporting, the following clarifies how Gunvor has gone about its reporting in this document.

The international petroleum industry association (IPIECA)<sup>1</sup> has developed a guidance for sustainability reporting that Gunvor finds most applicable to its business.

With respect to greenhouse gas (GHG) emissions, Gunvor also aligns its reporting with the GHG protocol<sup>2</sup>.

The following table shows the reporting elements and the references to the IPIECA guidance. In that table, Gunvor has added references to metrics in other reporting standards for information: Global Reporting Initiative<sup>3</sup>, the US based SASB standards<sup>4</sup>, and the TCFD<sup>5</sup>.

	IPIECA indicators	Global Reporting Initiative references	Sustainability Accounting Standards Board	TCFD
Case study Green Book	GOV-2: Management systems			
Compliance / Business Ethics	GOV-3: Preventing corruption			
	GOV-4: Preventing corruption involving business partners	GRI-205		
	GOV-5: Transparency of payments to host governments	GRI-205		

1 Sustainability reporting guidance for the oil and gas industry © IPIECA / API / IOGP 2020  
 2 See <https://ghgprotocol.org/>  
 3 Global Reporting Standards Board  
 4 Sustainability Accounting Standards Board; standards for Oil & Gas Midstream, Refining & Marketing; Biofuels; Marine Transportation  
 5 Task Force on Climate Related Financial Disclosures: We are including in this report the disclosures already covered through our processes and systems and will provide all disclosures in subsequent reports

	IPIECA indicators	Global Reporting Initiative references	Sustainability Accounting Standards Board	TCFD
Energy Transition	CCE-1: Climate governance and strategy		110a.2	Governance disclosure a) Governance disclosure b)
	CCE-2: Climate risk and opportunities			Strategy disclosure a) Risk Management disclosure a)
	CCE-3: Lower-carbon technology			Strategy disclosure b) & c)
	CCE-4: Greenhouse gas (GHG) emissions	GRI-305	110a.1	Strategy disclosure b) & c) Metrics & Targets disclosure a), b) & c)
<b>Environment</b>				
Water	ENV-1: Freshwater	GRI-303	140a	
	ENV-2: Discharges to water	GRI-303	140a	
Biodiversity	ENV-3: biodiversity policy and strategy	GRI-304		
	ENV-4: Protected and priority areas for biodiversity conservation			
Air Emissions	ENV-5: Emissions to air		120a	
Environmental compliance		GRI-307		
Community Engagement	SOC-9: Local community impacts and engagement	GRI-413		
	SOC-12: Community grievance mechanisms	GRI-413		
Spills	ENV-6: Spills to the environment		160a.3	
Waste Management	ENV-7: Materials management	GRI-306	150a	
Decommissioning	ENV-8: Decommissioning			
<b>Health &amp; Safety</b>				
Governance framework	GOV-1: Governance approach			
Governance framework	GOV-1: Governance approach			
Involvement	SHS-1: Safety, health, and security engagement	GRI404		
Personal Health	SHS-2: Workforce health	GRI-403		
Personal Safety	SHS-3: Occupational injury and illness incidents	GRI-403	320a	
Transport Safety	SHS-4: Transport safety			
Product Safety	SHS-5: Product stewardship			
Process Safety	SHS-6: Process safety		540a	
Security	SHS-7: Security risk management	GRI-410		
Human Rights	SOC-1: Human rights due diligence	GRI-412		
	SOC-2: Suppliers and human rights	GRI-414		
Foundation	SOC-13: Social investment			

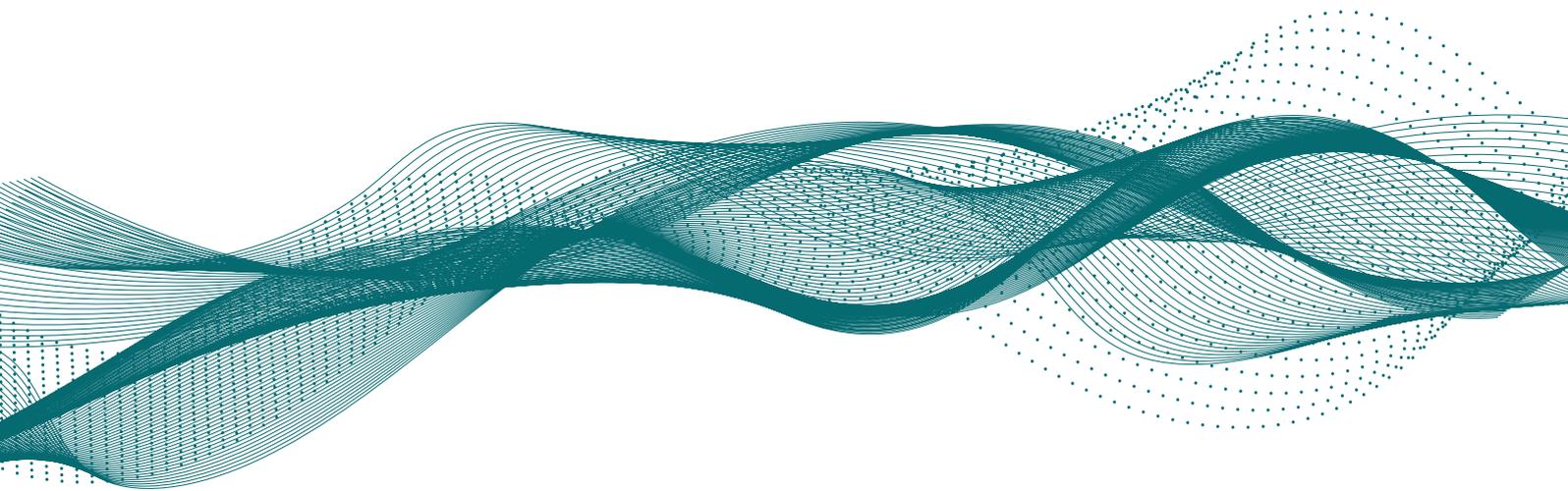
# Technical Appendix

	Unit	2020	2021	Page in the Report
<b>HEALTH &amp; SAFETY</b>				
AIF	Injuries per million hours	3.7	3.9	p.19
LTFR	Injuries per million hours	1.0	1.3	p.20
PSER	Events per million hours	1.0	1.3	p.23
<b>ENVIRONMENT</b>				
Exceedances	#	14	6	p.34
Community Complaints	#	18	5	p.35
Spills > 1 barrel	Count of spills	0	0	p.35
Total Waste	Tonne	46,270	69,485	p.36
Hazardous Waste	Tonne	9,702	5,029	p.36

	Unit	2020	2021	Page in the Report	
<b>ENERGY TRANSITION</b>					
Scope 1	Tonne of CO2	976,234	946,073	p.45	
Scope 2	Tonne of CO2	50,951	106,529	p.45	
Scope 3	from Time Chartering	Tonne of CO2	1,756,346	1,370,641	p.45
	from Voyage Chartering	Tonne of CO2	N/A	385,705	
	from LNG trading (cradle to grave)	Tonne of CO2	N/A	30,880,000	
	Carbon intensity of LNG (cradle to grave)	Tonne of CO2/Tonne of LNG	N/A	3.74	
Eco Vessels in Co-owned Fleet	%	76%	81%	p.50	
Eco Vessels in Time Chartered Fleet	%	22%	66%	p.50	
<b>HUMAN RIGHTS</b>					
Assessed Operated Assets	%	100	100	p.76	
Assessed Joint Ventures*	%	20%	60%	p.76	
<b>COMPLIANCE</b>					
People in Compliance Team		18	17	p.92	
New Business Counterparties Approved		1,989	1,152	p.92	
Business Counterparties Screened		20,000	26,740	p.92	

(\*) Fixed assets with 25% or more share

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