altera
INFRASTRUCTURE

Sustainability Report | 2022

Contents

“The industry relies on bold leadership to battle climate change. It will require a huge collective effort and investments on an unprecedented scale. We are fully committed to doing our part.”

– Ingvild Sæther on sustainability

A letter from our CEO

At Altera, sustainability is at the core of everything we do. We are committed to conducting our business in a way that is responsible and sustainable, and this means that we prioritise sustainability in every aspect of our operations, including the life extensions of our assets and securing new business on existing assets. We understand that the demand for affordable, reliable, long-term access to energy is critical, especially in the wake of the energy crisis and the ongoing war in Ukraine. That is why it is more important than ever to provide reliable energy access to the world through our infrastructure.

Currently, emissions reduction is the area where we can contribute the most in the battle against climate change. By harnessing the power of both our people and our technology, we are making significant strides in reducing our largest source of emissions, which results from fuel consumption. We are making substantial progress towards reducing this through cooperation with our customers, electrification, fuel technology, and digitalisation.

We know that cutting emissions alone is not enough if we are going to achieve the goals set out in the Paris Agreement. That is why we need to realise a value chain for carbon capture and storage (CCS) quickly and on a large scale. Our Stella Maris CCS solution will safely collect, transport, and permanently store 10 million tonnes of CO_2 every year. And this is just the beginning. Our maritime solution is flexible and scalable, enabling us to quickly deploy large-scale CCS projects anywhere in the world.

One of our main organisational goals is to create a company where diversity is encouraged and our people can play their biggest game, regardless of their background or personal preferences. We are committed to creating a culture where it is accepted to be different, and where everyone can contribute their unique set of strengths and abilities.

At Altera, we recognise that the industry relies on bold leadership to battle climate change. It will require a huge collective effort and investments on an unprecedented scale. We are fully committed to doing our part.

Ingvild Sæther

President & Chief Executive Officer
Altera Infrastructure Group Ltd.

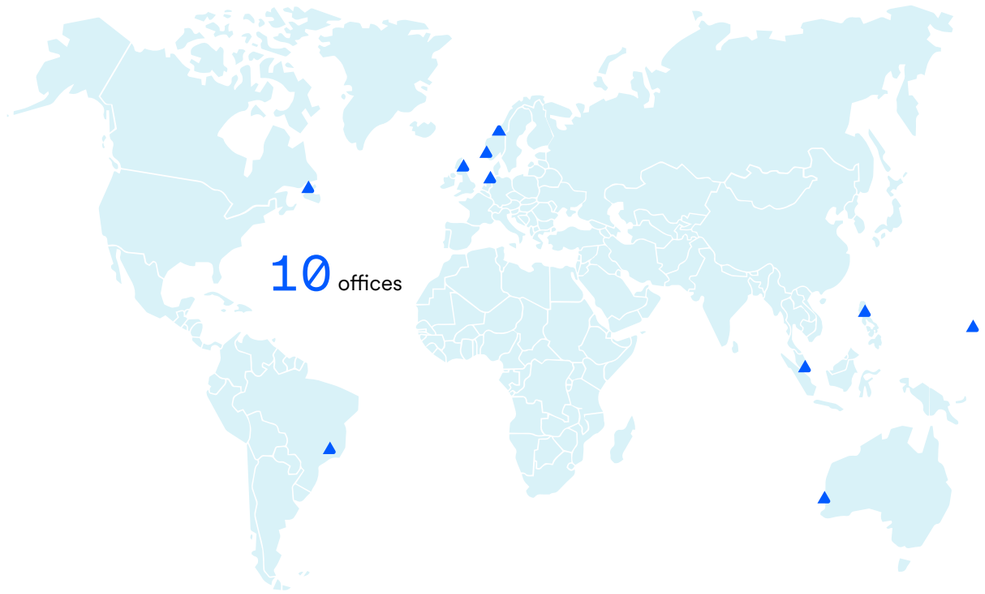
Leading the industry to a sustainable future

Altera Vision

Altera Infrastructure at a glance

Altera Infrastructure at a glance

Global operations



10 offices

4 lost time incidents (LTI)
0.51 consolidated group LTI rate

11 total recordable injuries (TRI)
1.41 consolidated group TRI rate

45 vessels owned or operated in 2022 (all fleets)[2]

7 FPSOs

24 shuttle tankers

3 FSOs

10 towage vessels

1 UMS

22 kg CO_2e/bbl o.e[3]
Fleet average emissions intensity, FPSOs in continuous production throughout 2022

38 kg CO_2e/bbl o.e[4]
Fleet average emissions intensity, all operating FPSOs

3.08 g CO_2/dwt-nm
Fleet average carbon intensity indicator (CII)[5]

4.95 kg CO_2/bbl
Fleet average carbon intensity[6]

89.68 g CO_2/kWh
Fleet average carbon intensity[7]

1,360,567
t CO_2e total emissions (Scope 1, 2, 3)[1]
16.5% decrease from 2021

1,090
t CO_2e per million USD revenue
group emissions intensity[2]

1
oil spill
(volume 0,5 litres)

0
chemical spills

2,298
total workforce
20% onshore
80% offshore and aboard

17%
representation of women senior management
10% total workforce

Notes
[1] Includes Scope 1 emissions from assets operated through joint ventures on an equity share basis.
[2] Includes Scope 1 emissions from assets operated through joint ventures and revenue from joint ventures on an equity share basis.
[3] Calculation based on Scope 1 and Scope 2 emissions and production only from FPSOs operated by Altera which were in continuous production for the duration of 2022; excludes FPSOs operated through joint ventures, in layup, and FPSOs that were in decommissioning during 2022.
[4] Calculation based on Scope 1 and Scope 2 emissions and production from operating FPSOs directly operated by Altera; excludes FPSOs operated through joint ventures and FPSOs in layup.
[5] Calculation based on Scope 1 emissions from Altera-operated shuttle tankers only; IMO shuttle tanker correction factor applied.
[6] Calculation based on Scope 1 emissions from Altera-operated FSOs only.
[7] Calculation based on Scope 1 emissions from towage vessels operated by ALP Maritime services only.

About the report

About the report

This report presents sustainability-related disclosures for Altera Infrastructure L.P. and its subsidiaries (collectively, Altera) for the fiscal year 2022, running from 01 January to 31 December.

This report includes disclosures based on the Global Reporting Initiative (GRI) standards and relevant Sustainability Accounting Standards Board (SASB) standards for our industry. It is further inspired by the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) and has been prepared with reference to the Norwegian Shipowners' Association's (NSA) environment, social, and governance (ESG) reporting guidelines.

For a list of our material subsidiaries, please see the Subsidiaries appendix.

Reporting boundaries

We are committed to consistent and transparent sustainability reporting in line with applicable requirements, industry practice, and our stakeholders' expectations. This report includes disclosures for our business units Altera Production, Altera Shuttle and Storage, and Ocean Towage and Offshore Services (under our ALP Maritime Services brand), as well as corporate resources.

We currently report on Scope 1, and a portion of Scope 2 and Scope 3 greenhouse gas (GHG) emissions. In this report, unless otherwise specified, references to "emissions" are to GHG emissions. We report according to the GHG Protocol, based on an operational control basis, and consider vessels for which we hold the document of compliance and for which we act as duty holder to be within our operational control. We report workforce and health, safety, and environment (HSE) data for vessels, and units that are operated under our business units' management systems. Consolidated financial data used to calculate group emissions intensity (emissions by revenue) has been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board (IFRS).

For floating production, storage, and offloading (FPSO) vessels operated by our joint venture, Altera & Ocyan, we report only Scope 1 emissions based on our 50% equity share; all other sustainability disclosures are reported through our joint venture partner, Ocyan. For clarity, we disclose Scope 1 totals, as well as emission source inputs relevant to calculating the Scope 1 totals, separately for Altera-operated and joint venture-operated vessels (see the Disclosures table for additional details). Altera & Ocyan took over operation and maintenance of the 3R Petroleum Offshore's 3R3 FPSO and 3R2 tension-leg manned wellhead platform (TLWP) on the Papa Tera field in Brazil on 30 December 2022. As Altera & Ocyan became responsible for these operations late in the year, emissions data from these operations for the final two days of 2022 are not available and have not been included in this report.

Emissions for other vessels that we own, but do not operate, are reported under Scope 3. Two of our shuttle tankers, and our unit for maintenance and safety were operated by third parties for some or all of 2022.

Contact
Learn more about Altera at alterainfra.com

We appreciate your feedback, comments and queries on this report. Please get in touch via **sustainability@alterainfra.com**

Who we are

Our Vision

Leading the industry
to a sustainable future.

Our Mission

Through TEAMwork and innovation, we are shaping the infrastructure of offshore energy.

Our Values

Our TEAM values guide our decisions and actions in everything we do.

TRUST

We value and respect each other and we do what is right. Every one of us. As true team players, we are inclusive and resourceful. Our customers, partners, and colleagues can rely on our full commitment to transparency, honesty, and reliability.

EXCELLENCE

We put safety first. Always. Everything we do is shaped by our desire to make a difference and to find the best solutions. Our unrelenting determination to set higher standards for quality and precision allows us to create lasting results.

ACCOUNTABILITY

We keep our word and deliver on our promises. No surprises. Acting responsibly, we create context, follow through, and take ownership of our actions. Our ambitious leadership will help to ensure the industry's relevance and value, far into the future.

MOMENTUM

We bring passion, enthusiasm, and energy to work. Every day. By always seeing the opportunity and being intentional, we are continuously moving forward, embracing change and learning from our mistakes. Our collective creativity and vitality keep us progressing.

About Altera Infrastructure

What we do

Altera provides critical infrastructure assets to the offshore energy industry. Through our three business units – Altera Production, Altera Shuttle and Storage, and Ocean Towage and Offshore Services (under our ALP Maritime Services brand) – we directly owned and/or operated a fleet of 45 vessels in 2022, including seven floating production, storage, and offloading (FPSO) vessels, 24 shuttle tankers, three floating storage and offloading (FSO) units, 10 long-distance towage and offshore installation vessels, and one unit for maintenance and safety (UMS). Most of our fleet is employed on medium- to long-term stable contracts. Our primary markets are the offshore regions of the North Sea, Brazil, and the eastern coast of Canada.

In addition, Altera & Ocyan, our joint venture in Brazil with Ocyan, owned and/or operated a fleet of three FPSOs and one additional production vessel in 2022.

More recently, Altera has leaned into opportunities created by the energy transition. Through our Stella Maris carbon capture and storage (CCS) project, we are exploring solutions related to carbon dioxide (CO_2) collection, transport, and storage infrastructure with the aim of developing a full carbon capture transport and storage (CCS) value chain as a "one-stop shop" that will enable industrial emitters of CO_2 to decarbonise their assets.

Please refer to the Commitment to the energy transition chapter of this report for details about Stella Maris CCS. For further information regarding business unit activities, and for 2022 sustainability highlights, please refer to the individual business unit chapters for Altera Production, Altera Shuttle and Storage, and ALP Maritime Services. For full information about our fleet, please refer to the Fleet list at the end of this report.

Our structure

Altera Infrastructure L.P., established in 2006, is a limited partnership. The partnership is managed and controlled by our general partner, Altera Infrastructure GP L.L.C., which exercises its authority through its board of directors. References in this report to "our directors" and "our board" refer to the board of directors of our general partner. Profiles of our board members, as well as their committee appointments, are available at alterainfra.com. Altera is majority owned by the Brookfield Group.

We maintain offices in Australia, Brazil, Canada, the Netherlands, Norway, the Philippines, Singapore, and the United Kingdom. Our principal office is in the United Kingdom, specifically our office at Altera House in Westhill, Aberdeenshire.

Our business units

Altera Production
An FPSO is a floating production, storage, and off-loading facility used to develop offshore oil fields in deepwater areas remote from existing pipeline infrastructure. FPSOs process crude oil produced from the reservoir and then store the processed oil in tanks located in the hull of the vessel, which is later transported to shore via shuttle tankers. In our operations, natural gas can be exported to shore in pipelines, used to power onboard turbines, re-injected into the reservoir for pressure support, or, if necessary, flared at the field, as permitted by relevant authorities.

Altera Production specialises in designing, providing, and operating FPSOs to extract hydrocarbons in deepwater and harsh weather conditions. With our fleet of FPSOs, our highly skilled employees, and more than 45 years of experience in the floating sector, we are the most experienced independent FPSO operator in the North Sea.

In 2022, we wholly owned and operated five FPSOs – Petrojarl Knarr operating in Norway, Petrojarl 1 operating in Brazil, Piranema Spirit undergoing yard maintenance in Brazil, Voyageur Spirit in lay-up in the UK, and Petrojarl Varg, which was in lay-up in Norway until being sold in May 2022. In addition, we held a 50% stake in two FPSOs through our joint venture Altera & Ocyan – Cidade de Itajai and Pioneiro de Libra – both operating in Brazil.

In the first half of 2022, we also operated two FPSOs – Petrojarl Foinaven and Sevan Hummingbird – in the UK sector of the North Sea on behalf of Teekay Cor-

poration. Petrojarl Foinaven and Sevan Hummingbird were decommissioned and redelivered to Teekay Corporation within the year.

On 30 December 2022, our Altera & Ocyan joint venture formally took over operations and maintenance of the 3R3 FPSO (previously named P-63) and 3R2 (previously named P-61) tension-leg manned wellhead platform (TLWP) for 3R Petroleum Offshore on the Papa Terra field in Brazil.

Altera Shuttle and Storage
Altera owns and operates three vessel segments through the Shuttle and Storage business unit – shuttle tankers, floating, storage, and offloading (FSO) units, and one unit for maintenance and safety (UMS).

Shuttle tankers
A shuttle tanker is a specialised vessel designed to transport crude oil and condensates from offshore oilfield installations, usually to onshore terminals and refineries. Shuttle tankers are equipped with sophisticated loading and dynamic positioning systems that allow the vessels to load cargo safely and reliably even in harsh weather conditions, such as those found in the North Sea.

Our shuttle tankers are primarily subject to long-term, fixed-rate time charter or bareboat charter contracts or are under contracts of affreightment for various fields. Our vessels operate primarily in the North Sea, Brazil, and along the eastern coast of Canada. In 2022, we owned or part-owned 23 shuttle tankers, with ownership interests ranging from 50% to 100% (three of which we sold or recycled during the year). Of these, two vessels were operated by a third party for part or all of 2022. We further in-chartered one additional shuttle tanker, which we redelivered to the owner within the year.

Floating, storage, and offloading (FSO) units
FSO units provide on-site storage for oilfield installations that have no storage facilities or require supplemental storage. Each FSO is equipped with an export system that transfers cargo to shuttle or conventional tankers. FSO units are often conversions of older shuttle tankers or conventional oil tankers. These conversions, which include installation of a loading and off-take system and hull refurbishment, can generally extend the commercial lifespan of a vessel by up to 20 years.

Our FSO units are generally placed on long-term, fixed-rate time charter or bareboat charter contracts as an integrated part of the offshore field development plan. In 2022, we owned and operated three FSO units operating in Norway, Qatar, and Thailand, one of which was recycled within the year.

Unit for maintenance and safety (UMS)
UMSs are used primarily for offshore accommodation, storage, and support for maintenance and modification projects on existing offshore installations, or during the installation and decommissioning of large offshore assets, such as floating production and storage units, floating liquefied natural gas units, and floating drill rigs. In 2022, we owned one UMS, which was in lay-up for part of the year and was operated by a third party for part of the year.

ALP Maritime Services
Our ALP Maritime Services brand owns and operates long-distance towage vessels, used to provide ocean towage, station-keeping, installation, and decommissioning of large floating objects, such as offshore production and storage units, including FPSO units and floating drilling rigs, as well as wind installations. Our vessels have a bollard pull of 206 to 312 tonnes and fuel capacity for at least 35 to 40 days of demanding operations. We focus on intercontinental towage requiring trans-ocean movements. Our vessels operate on voyage-charters and spot contracts. In 2022 we owned and operated 10 towage vessels, two of which we sold within the year.

Please refer to the Fleet list at the end of this report for a listing of our vessels we owned or operated in 2022.

Our corporate units

New Ventures
Through our New Ventures corporate unit, we identify and incubate new potential business models aligned with the energy transition, such as our Stella Maris carbon, capture, and storage (CCS) project. Refer to the Commitment to the energy transition chapter of this report for further details about the new business models we are developing.

About Altera Infrastructure

Project Development and Execution
Our clients trust Altera to deliver the largest, most complex technical and capital expenditure (Capex) projects in the offshore energy industry. Development, contracting, and execution of such large-scale projects requires advanced engineering and world-class project management. Our Project Development and Execution (PDE) corporate unit is a centre of technical and project management excellence for all large Capex projects across Altera.

About Altera Infrastructure

Altera Infrastructure's value chain

We are a leading provider of critical infrastructure assets to the offshore energy industry. These assets play a critical role in bringing energy to the world, enabling the extraction and transportation of hydrocarbons used to generate electricity, fuel transportation, and power industry. Our fleets are crucial to meeting the global demand for energy, which is essential for economic growth, development, and quality of life.

We also recognise and support the necessary energy transition towards renewable energy sources to reduce emissions and mitigate the effects of climate change.

That's why we are investing in innovative technologies and solutions to provide sustainable services to our clients and the world.

1 Our FPSOs are a key component of the upstream offshore energy development and production value chain, enabling our energy company clients to extract challenging hydrocarbons in deep waters and harsh weather conditions.

2 We are actively investigating electrification (including the possibility of connecting to offshore windfarms), which could reduce Scope 1 emissions from our FPSOs to near zero.

3 Our shuttle tankers and FSO fleets provide critical offloading, storage, and transportation of hydrocarbons from offshore installations in both deep water and harsh weather environments.

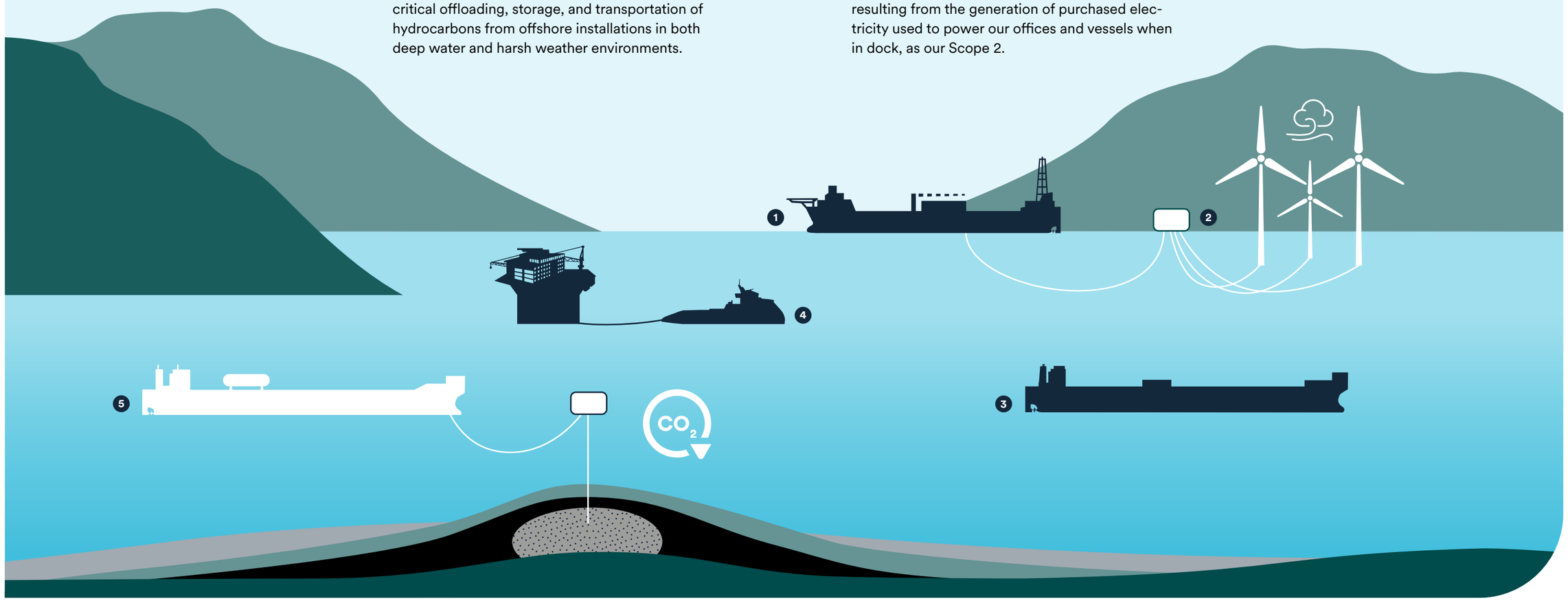
4 Our fleet of long distance ocean towage vessels offer stability in long towing operations and harsh weather environments, providing critical towing, mooring, installation, and decommissioning services for ultra-large and ultra-heavy floating objects, such as those for offshore installations.

5 Our Stella Maris CCS project is developing a large-scale, flexible, and scalable maritime logistics solution for collecting and storing CO_2 from industrial sources.

We consider vessels and assets for which we hold the document of compliance or act as duty holder to be within our operational control, and count emissions directly resulting from the operation of these vessels as our Scope 1. We count emissions resulting from the generation of purchased electricity used to power our offices and vessels when in dock, as our Scope 2.

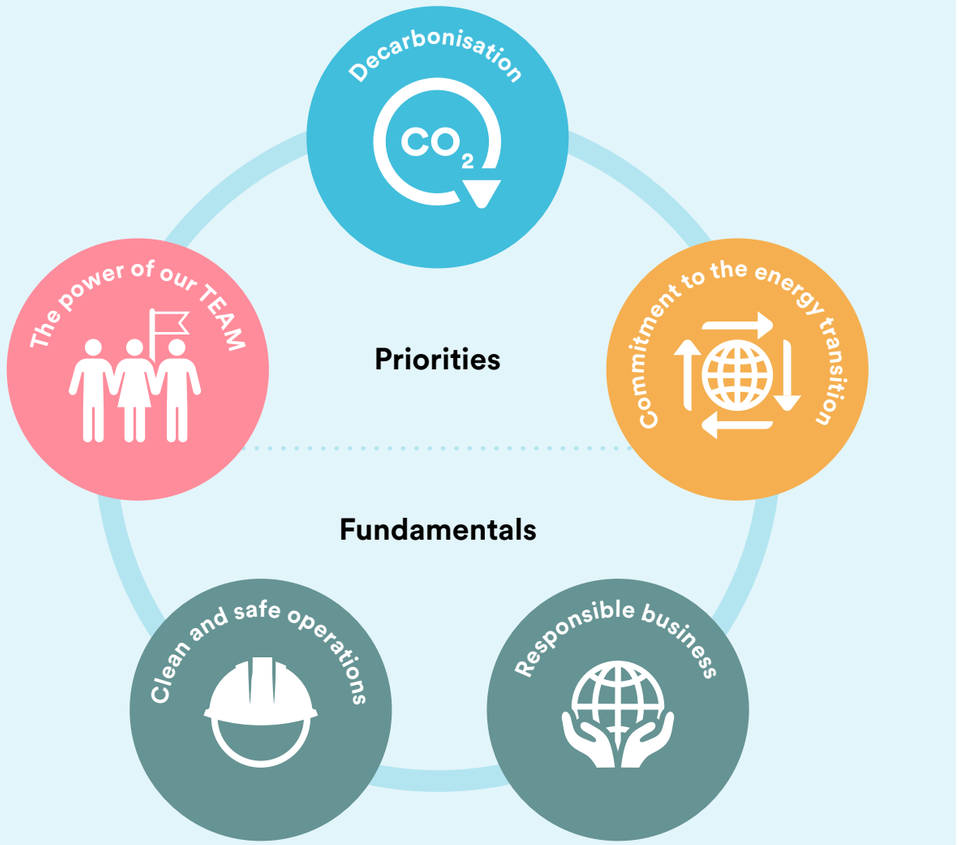
Our overall value chain comprises a large network of suppliers, service providers, business partners, and other third parties. Our upstream value chain includes, for example, supply chain goods and equipment, fuel, transportation, waste, use of assets leased by Altera (such as in-chartered vessels), and business travel. Downstream, our value chain includes the use of Altera assets leased to others (such as Altera-owned vessels operated by a third party). We count emissions resulting from these activities as our Scope 3.

Illustration below:
Dark blue icons: Current activities
White icons: Potential future activities



Sustainability at Altera Infrastructure

Altera sustainability framework



Our Vision

Our vision is to lead the industry to a sustainable future. This reflects our ambition to provide the critical infrastructure assets needed to power the world and support the energy transition, and our pledge to deliver those assets responsibly.

Leading the industry to a sustainable future

The world needs energy.
Our customers are global energy companies producing the oil and gas that today constitute the backbone of the global energy system. We are a critical part of the industry of offshore energy.

But the climate science is clear.
We need to remake the energy system to rapidly reduce our dependence on hydrocarbons and make renewable energy sources available and affordable.

This challenge is massive.
As an industry, we need to act with urgency and boldness to decarbonise our operations and use our expertise to develop new climate-neutral models of offshore energy that will power the world.

Altera will play a leading role in this transformation.
We will direct all our innovation efforts – technical, organisational, and commercial – towards pushing the industry forward through the energy transition and beyond.

Our framework

We launched our sustainability framework in 2021 to structure and prioritise our activities in support of our vision, to set goals, and to track and measure our progress. Our framework aligns with Altera's business strategy and reflects the material topics that are most important to our key stakeholders and the areas where Altera has the greatest opportunity to make a significant impact.

Our business strategy and sustainability framework identify three areas of priority focus through which we drive progress towards our overarching sustainability ambition:

- **Decarbonisation** – reducing the direct climate impact from our operations
- **Commitment to the energy transition** – developing new business models that will enable the energy transition and secure Altera's role in that transition
- **The power of our TEAM** – investing in our people for the long term

We set concrete and measurable targets for our priorities, and track and report our performance against these targets.

We pursue our priorities while continuing to deliver excellence in the fundamental areas that serve as our license to operate. This includes a constant focus on health, safety, and our environmental impact, and always acting responsibly and with integrity.

Additional details of our priorities, targets, and key performance indicators for the reporting year are provided in the following chapters of this report. Performance highlights and key performance indicators from the activities of our business units are provided in the individual business unit chapters.

Please refer to the Disclosures table for Altera's full environment, social, and governance disclosures for the reporting year.

Sustainability at Altera Infrastructure

Altera sustainability framework

Priorities

	Decarbonisation	Commitment to the energy transition	Power of our TEAM
Commitment	Deploy technical, operational, and commercial solutions to reduce the emissions and climate impact of our business operations	Deliver new offshore energy infrastructure business models and technical innovations that will drive the energy transition	Provide a work environment that is supportive, inclusive, and professionally rewarding where people can thrive
Strategic targets	**2030** **FPSOs** 70% reduction in fleet average emissions intensity, compared to 2019 baseline **Shuttle tankers** 50% reduction in fleet average IMO carbon intensity indicator, compared to IMO 2008 baseline **Annually** **FSOs** 2% annual reduction fleet-wide in carbon intensity, compared to 2020 baseline	**2026** Allocate the majority of new capital to business ventures aligned with the energy transition **2030** Generate the majority of cashflow from business ventures aligned with the energy transition	**Annually** Rate of voluntary turnover of permanent employees below 7.5% group wide Representation of at least 35% for each gender within senior management
Material topics	• Emissions abatement • Low-carbon technology • Energy and operational efficiency	• New ventures • Innovation in vessel design and technology • Risk and opportunity management	• Attractive workplace • Accountability framework • Diversity and inclusion • New career opportunities aligned with the energy transition
UN Sustainability Goals			

Fundamentals

Safe and clean operations	• Health and safety • Environmental impact • Asset and process integrity • Emergency preparedness
Responsible business	• Compliance and ethics • Labour and human rights • Cybersecurity • Responsible asset recycling • Local community investment

Our material topics

From 2020 to 2021, we conducted a stakeholder analysis and materiality assessment to identify sustainability topics of greatest importance, and on which Altera has the highest potential for impact, positive or negative. Based on comprehensive dialogue with key internal and external stakeholders, including employees and representatives of clients and other business partners, we identified 13 material topics, which we categorised as operational, strategic, or leading.

- **Operational:** topics that are fundamental to our business and constitute our license to operate
- **Strategic:** topics that drive our business forward, differentiating us from our peers
- **Leading:** topics are areas where we can make bold, ambitious contributions defining the future of the industry and our role in it

These topics form the foundation of our sustainability framework – strategic and leading topics developed into our sustainability priorities, while the operational topics reflect the fundamentals of our business. In 2023, we plan on resuming stakeholder dialogue to confirm and update our assessment of material topics, as necessary.

Operational

The fundamentals of how we operate

- Asset integrity and process safety
- Cyber security
- Compliance and risk management
- Responsible business conduct
- Emergency preparedness
- Asset integrity and process safety
- Local community investment
- Occupational health and safety
- Green operations
- Ship recycling

Strategic

Driving us forward

- Attractive workplace
- Risk and opportunity management

Leading

Leading the industry to a sustainable future

- Climate action and low-carbon technology
- Innovation

Environment Social Governance

Our stakeholders

Our key stakeholders include those directly impacted by operations, or with a direct interest in our business activities – our clients, employees, investors, lenders, suppliers, and relevant government authorities. We maintain close ties and engage in frequent dialogue with these parties to ensure our expectations are aligned. This dialogue takes place in a variety of settings, including in commercial and operational discussions, and more informally through our membership in various industry associations and programs.

Memberships and partnerships

We believe in cooperation and sharing of best practices, internally and externally, to improve health and safety, sustainability, and operational performance. We are an active member of several industry and related associations, including, in 2022:

- ABESPetro
- FME Hydrogeni
- Green Shipping Programme
- Maritime Anti-Corruption Network (MACN)
- Net Zero Technology Centre (NZTC)
- Norwegian Brazilian Chamber of Commerce
- Norwegian Shipowners Association (NSA)
- Offshore Norge (previously known as Norwegian Oil and Gas)
- Oil and Gas UK
- Philippine Norway Business Council
- Ship Recycling Transparency Initiative (SRTI)
- SINTEF LowEmission Research Centre
- Step Change in Safety UK
- Volatile Organic Compounds Industry Cooperation (VOCIC)

Those impacted indirectly by our activities, such as the communities in which we operate, non-governmental public-interest organisations, and the public at large, are also our stakeholders. We have not yet engaged with these parties on sustainability matters in a formal way.

Sustainability governance

Altera's group management, led by our CEO, is responsible for all sustainability-related matters. Group management, with input from executive leadership, sets group sustainability policy and ambitions and is accountable for the group's overall sustainability performance. Group management makes quarterly reports to the board regarding health, safety, and the environment (HSE), as well as any critical concerns regarding the group's sustainability performance.

Our board reviews, approves, and monitors fundamental financial and business strategies and major corporate actions. It also exercises general oversight authority for sustainability-related matters via its oversight of group management performance, including sustainability and HSE performance. Oversight of the business ethics compliance program and the enterprise risk management (ERM) process, into which climate-related risks are incorporated, is expressly anchored with the audit committee. The corporate governance committee oversees board performance, including periodic reviews of the size, structure, and overall composition of the Board, which incorporates considerations of board diversity.

In addition to their active involvement in setting group ambitions as members of Altera's executive leadership, the heads of our individual business units and corporate units are accountable for driving sustainability initiatives within their areas of responsibility and delivering on their part of the company-wide sustainability ambition.

Our corporate sustainability function is responsible for facilitating executive leadership decision-making

on sustainability-related topics, orchestrating a common approach to sustainability- and climate-related risk and opportunity assessment across the group, and delivering consolidated group reporting on sustainability-related matters and ESG metrics.

To ensure alignment, the corporate sustainability function convenes a working group comprising sustainability representatives appointed from each of the business units and corporate units. The working group meets regularly to share knowledge and progress group-wide priorities.

Managing climate-related risk

Risk and opportunities arising from Altera's activities, including those that are climate-related, are identified and assessed through the group's ERM process, with oversight from the board. Business unit management teams identify and assess enterprise risks on a quarterly basis. Results are consolidated to provide a group-wide overview, and risks identified as more significant are included in quarterly group management reports to the board.

Our climate-related risks stem mostly from the transition to a decarbonised energy system, in the form of changing market conditions, shifting political and regulatory frameworks, and stigmatisation of our industry, which may increase the cost of financial capital, and make it more difficult to attract and retain talent.

Please refer to the Task Force on Climate-related Financial Disclosures (TCFD) appendix for details about how we manage climate-related risks and a description of the impacts associated with identified climate-related risk factors.

Sustainability at Altera Infrastructure

Climate-related risk factors

Policy and Regulation
- Carbon pricing and taxation
- Regulatory and reporting requirements

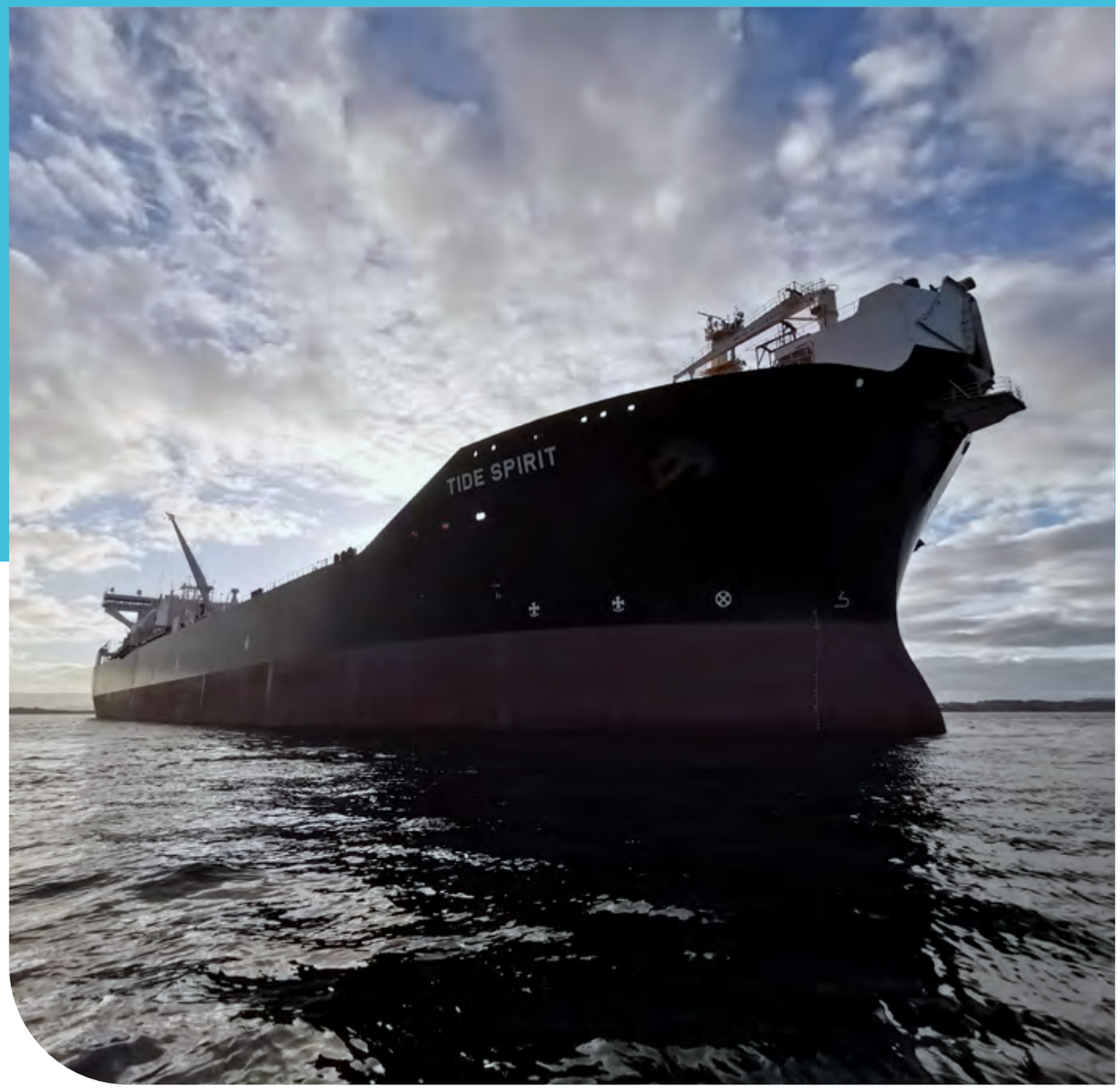
Technology
- Electrification
- Carbon capture and storage
- Alternative fuels
- Digitalisation and remote technology
- Decarbonisation

Market
- Demand for oil and gas
- Availability and cost of financial capital

Reputation
- Stigmatisation of oil and gas
- Ability to attract and retain key employees

Physical
- Disruption to crewing schedules due to weather or other climate-impacted events
- Supply chain disruption due to weather events

Decarbonisation



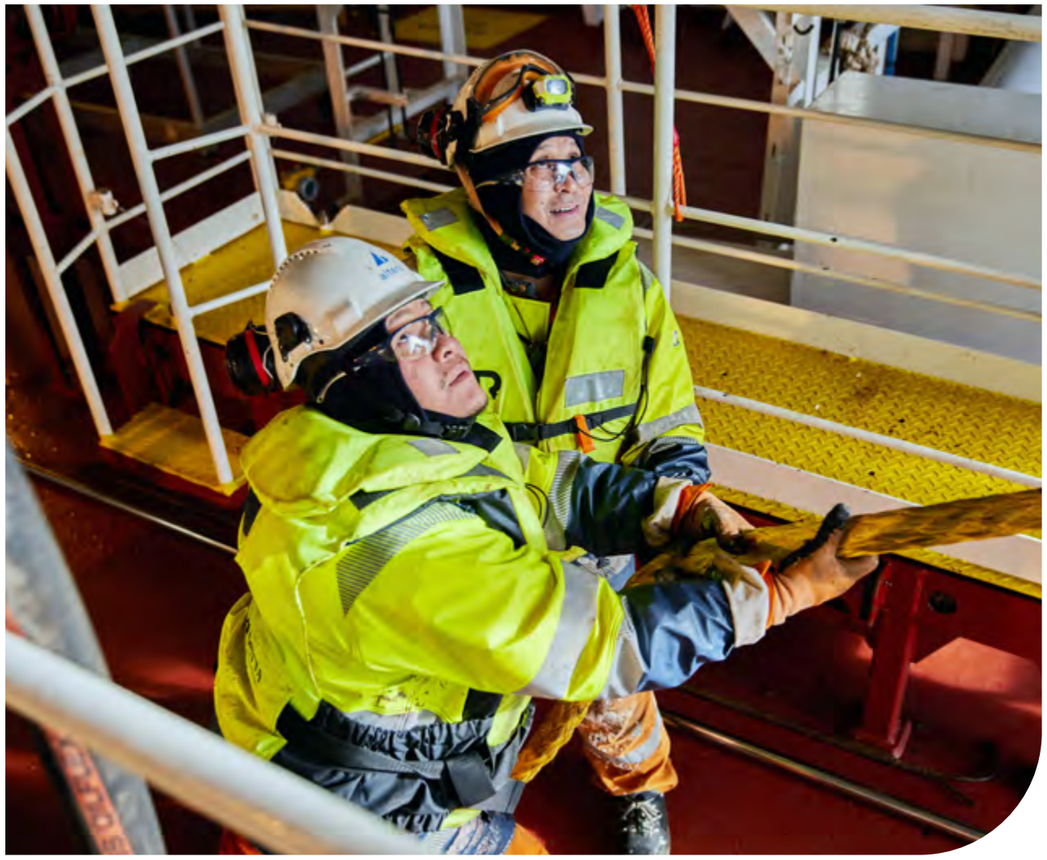
Decarbonisation

	Decarbonisation
Commitment	Deploy technical, operational, and commercial solutions to reduce the emissions and climate impact of our business operations
Strategic targets	**2030** **FPSOs** 70% reduction in fleet average emissions intensity, compared to 2019 baseline **Shuttle tankers** 50% reduction in fleet average IMO carbon intensity indicator, compared to IMO 2008 baseline **Annually** **FSOs** 2% annual reduction fleet-wide in carbon intensity, compared to 2020 baseline
Material topics	• Emissions abatement • Low-carbon technology • Energy and operational efficiency
UN Sustainability Goals	13

Our position

Oil and gas have powered more than a century of unprecedented economic development. While hydrocarbons remain a crucial part of today's energy mix, the science is clear – the burning of these fuels is driving a dramatic change in our climate. We need to rapidly decarbonise our current energy system and transition to a sustainable energy model.

We support the core objectives of the Paris Agreement on Climate Change and the global goal to achieve climate neutrality by 2050. Meeting this ambition within the infrastructure of offshore energy will require individual players to dramatically reduce their emissions from current activities and industry-wide action to develop a new climate-neutral model.



Oil and gas will continue to be important components of the world energy mix even as we shift towards sustainable sources, providing stability and security as the infrastructure and market for a future energy system matures. It is crucial that we deliver these resources with the smallest climate impact.

Our actions

Targeting emissions intensity reductions
When we adopted our sustainability framework in 2021, we had set an emissions reduction target only for our shuttle tanker fleet. Although we tracked absolute emissions as well as emissions intensity for other aspects of our business, we had not yet established further decarbonisation targets. We committed to defining concrete emissions targets for our group, aligned with the overall goals of the Paris Agreement.

The activities of our business units drive Altera's climate footprint. In 2022 we focused on defining emissions intensity metrics and setting emissions intensity targets for each of our main operating fleets as an important step towards achieving meaningful reductions. *Absolute emissions* measures the total volume of emissions produced and fluctuates based on market conditions and project portfolio. *Emissions intensity* measures emissions per unit of economic activity. An emissions intensity metric therefore provides a measure of our emissions in relation to our productivity, accounting for activity fluctuations.

Our defined emissions intensity metrics and targets for each fleet are described in the chart on this page. In setting each fleet-specific target, we modelled a reduction pathway from the relevant base year anticipating a significant reduction in emissions by 2030 and near zero-emissions by 2050. We considered this pathway together with the fleet-specific business model and available technology to identify concrete emissions intensity targets for each fleet. These targets are designed to drive continuous emissions reductions and efficiency in our operations.

At present, these emissions intensity targets primarily address Scope 1 emissions for vessels operated by Altera and exclude Altera vessels operated by a third party and vessels in lay-up. Carbon offsets are not currently part of the Altera decarbonisation strategy as we presently prioritise our own emissions reductions and removals over the use of credits and offsets. In certain cases, we might, however, consider using high-quality removal-based offsets on a project level. Such offsetting would only be considered for single-project carbon neutrality and would not influence or be included in Altera's climate accounting. In the future, we may further consider the use of high-quality removal-based offsets as a supplementary measure to counterbalance our residual emissions.

We have not yet set an emissions intensity target for our towage fleet. Unique amongst our fleets, our towage vessels perform a wide variety of activities. Some activities require moving large objects between continents, while other projects cover shorter distances and are less demanding. Our vessels are designed to adjust fuel efficiency to the task at hand. It is difficult to set a meaningful emissions intensity target that accounts for this variation, given that the project portfolio for our towage fleet varies over time. For now, we are committed to closely tracking carbon emissions per installed power capacity as a general indicator of our emissions performance and continue to investigate the use of more tailored metrics.

We have also not defined an emissions intensity metric or set an emissions intensity reduction target for our UMS as future operations for this vessel are expected to be managed by a third party, placing the vessel outside our Scope 1 emissions boundary.

Our performance

Greenhouse gas emissions
As a group, in 2022 we produced total emissions (Scope 1, Scope 2, and Scope 3) of 1,360,567 t CO_2e (including Scope 1 emissions from vessels operated through joint ventures on an equity share basis). About 79.2% of this total was Scope 1 emissions directly resulting from our activities. Less than 1% of our total emissions are Scope 2 emissions resulting from purchased electricity and district heating for our offices and docked vessels. Although we are working to expand our Scope 3 emissions inventory, we currently report only a portion of Scope 3 emissions. For 2022, the Scope 3 emissions we do report totalled 282,416 t CO_2e and accounted for about 20.8% of our total.

Fleet-specific emissions intensity metrics and targets

Fleet	Metric	Target
FPSOs	Emissions per barrel of oil equivalent produced (kg CO_2e/bbl o.e)	Fleet-average emissions intensity of 12 kg CO_2e/bbl o.e by 2030 70% reduction compared to 2019 baseline
Shuttle tankers	IMO carbon intensity indicator (CII) – carbon emissions by capacity-distance (g CO_2/dwt-nm)	50% reduction of IMO CII by 2030, compared to IMO 2008 baseline
FSOs	Carbon emissions per barrel of oil stored (kg CO_2/bbl)	2% annual reduction of fleet-average carbon intensity
Towage Vessels	Carbon emissions by installed power (g CO_2/kWh)	No target set, but performance to be tracked closely
UMS	Operations managed by a third party in 2022 and for foreseeable future; no metric defined or target set	

Refer to the Disclosures table for full details about the boundary for each metric.

Decarbonisation

Our total emissions (Scope 1, Scope 2, and Scope 3) were 16.5% lower in comparison to 2021. The change is due to a small drop in total Scope 1 emissions and a slightly more significant reduction in Scope 3 emissions. However, as our Scope 3 emissions inventory is incomplete, the importance of this reduction should be discounted.

Our total Scope 1 emissions (including Scope 1 emissions from vessels operated through joint ventures on an equity share basis) fell 13.6% from 1,246,743 t CO_2e in 2021 to 1,077,627 t CO_2e in 2022. Total Scope 1 emissions from our FPSOs fell 30.3% in 2022, as compared to 2021, as three Altera-operated vessels ceased operations.

Scope 1 emissions from our shuttle tankers increased 4.2% in 2022. Some of our shuttle tankers possess dual fuel capabilities and are able to run on either liquid natural gas (LNG) or more carbon intense marine gasoil (MGO). Due to historically high LNG prices, some of our clients directed that these dual use vessels switch to MGO for the given period.

This increase was counterbalanced by a fall in the Scope 1 emissions from our FSO fleet and ALP Maritime Services towage vessels. Scope 1 emissions from our FSOs fell 19.8% from last year to 19,304 t CO_2e, due to one of the assets ceasing operation during the year. Scope 1 emissions from our towage fleet fell 23.9% from 2021 due primarily to lower fuel intensity projects in our fleet portfolio.

Refer to the Disclosures table for full emissions disclosures and data.

Emissions intensity

Group-wide

We monitor the emissions intensity for our group-wide activities by dividing total emissions (Scope 1, Scope 2, and Scope 3) by consolidated annual revenue for a given year. In 2022, we emitted 1,090 t CO_2e per million USD revenue, a 12.2% decrease compared to 2021.

FPSOs

We measure the emissions intensity of our FPSO fleet by tracking emissions from operating FPSOs per barrels of oil equivalent produced (in this calculation we exclude FPSOs in lay-up and FPSOs operated through joint ventures). We have set a target to reduce the fleet-average emissions intensity of FPSOs operated by Altera by 70% by 2030 (compared to a 2019 baseline). In 2022, our operating FPSO fleet generated on average 38 kg CO_2e per barrel of oil equivalent, a 18.8% increase in comparison to 2021. The reason is that three of our FPSOs were decommissioned and went off field in 2022. In this tail-end phase of the field life, production volumes are limited and decreasing, but the same amount of fuel is needed to power onboard turbines to produce oil and gas from the reservoir. As a result, emissions intensity increases.

For comparison, the emission intensity for our FPSOs in continuous production throughout 2022 (excluding operating FPSOs engaged in decommissioning work) generated an average of 22 kg CO_2e per barrel of oil equivalent.

Shuttle tankers

We have set an ambitious target to reduce the fleet-average carbon intensity (as measured by the IMO carbon intensity indicator (CII)) for our shuttle tankers by 50% by 2030 compared to an IMO-calculated 2008 baseline. The fleet-average CII for our shuttle tankers in 2022 was 3.08 g CO_2 per deadweight nautical mile, a 1% improvement from 2021, and still in line with our established reduction pathway.

FSOs

In 2022, we established a new carbon intensity metric for our FSO fleet, tracking carbon emissions per barrel of oil stored for offloading. In 2022, our operating FSOs generated 4.95 kg CO_2 per barrel. We have set a target to reduce the carbon intensity of our operating FSOs by 2% annually. Although we have not previously reported on this metric, we have calculated our fleet-average FSO carbon intensity for 2021 and 2020 based on historic data. Based on these calculations, the carbon intensity of our FSO fleet increased 43.5% in 2022 in comparison to prior years. The reason is that while FSO Falcon Spirit stopped storage operations in August 2022, it continued decommissioning work activity thereafter, during which the vessel generated carbon emissions from the burning of fuel to power onboard turbines but stored no oil.

Towage vessels

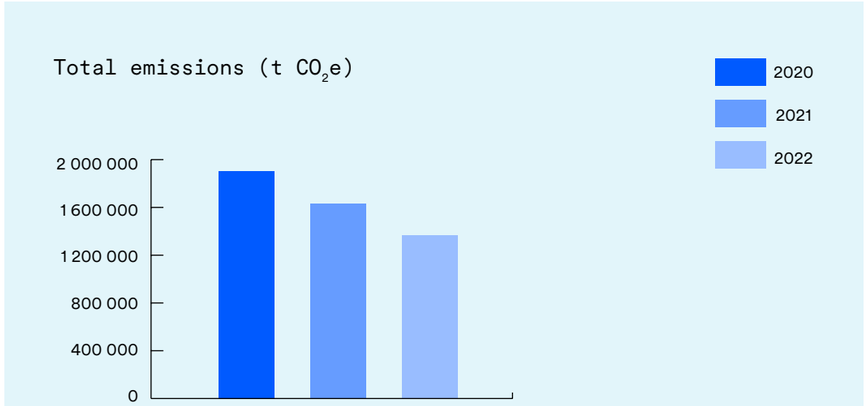
In 2022, we adopted a new general carbon intensity metric for our ALP Maritime Services towage fleet, tracking carbon emissions generated by onboard engines per installed power capacity and hours of operation (denoted as g CO_2/kWh). The metric is presently in use as an offshore service vessel (OSV) industry-wide metric, enabling our stakeholders

to compare our climate footprint with that of other OSV operators. It does not, however, account for the variability in the type of operations we conduct. Therefore, we have not set a carbon intensity target for this metric and instead commit to tracking present performance against past performance in our core market of long-distance ocean towage going forward while we investigate the use of a more tailored metric.

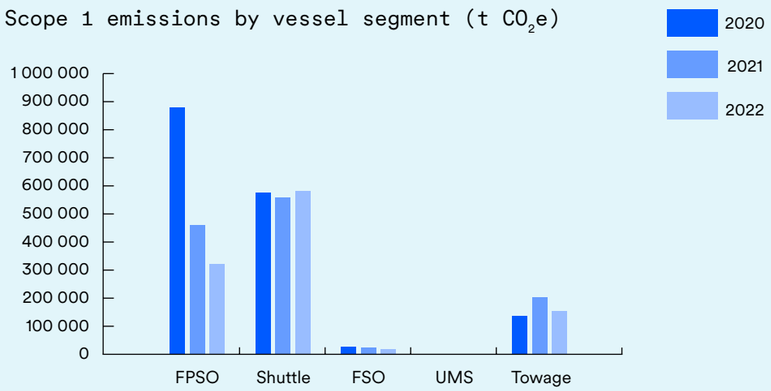
In 2022, our towage fleet produced an average of 89.68 g CO_2 per kWh. Although we have not previously reported on this metric, we have calculated the metric for 2021 and 2020 based on historic data. Based on these calculations, the carbon intensity of our towage fleet fell 19.6% in 2022 in comparison to 2021, due to the fact that our project portfolio included a smaller share of fuel (and emissions) intensive activity in 2022 than in 2021.

Fuel and energy consumption

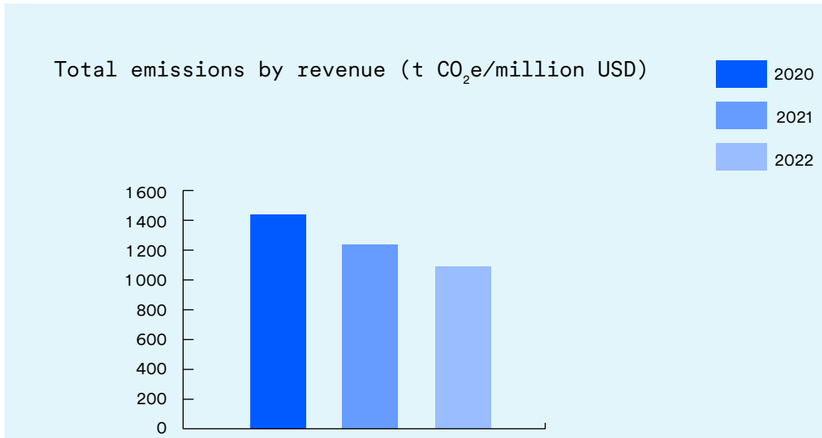
In 2022, our operations consumed 372,299,858 gigajoules (GJ) worth of fuel to power our vessels' engines and onboard generators (including fuel consumed by vessel operated through joint ventures on an equity share basis). Nearly all (97%) of our overall fuel consumption comes from the burning of fuel gas by our FPSO vessels. Overall, our energy consumption from the burning of fuel fell 25% from 2021, due to the fact that three Altera-operated FPSOs came off contract and ceased operations in 2022.



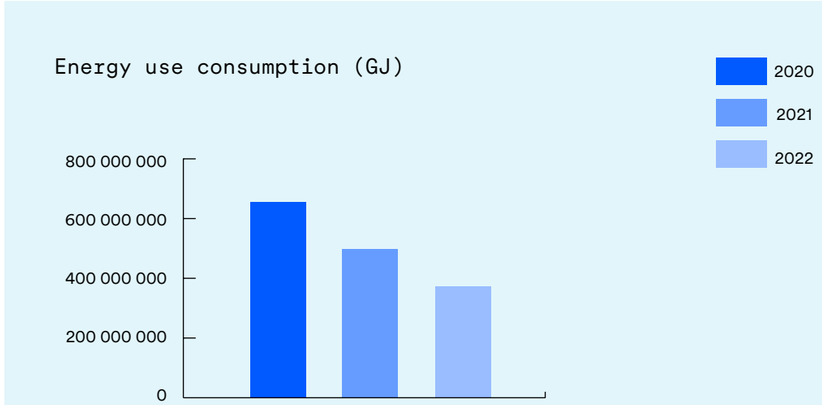
Includes Scope 1 emissions from vessels operated through joint ventures on an equity share basis.



Includes Scope 1 emissions from vessel operated through joint ventures on an equity share basis.



Altera accounts for its 50/50 joint venture, Altera & Ocyan, using the equity method of accounting. In line with International Financial Reporting Standards, the revenue from equity-accounted investments is not included within the consolidated revenue of Altera Infrastructure LP but has been incorporated here for the purposes of calculating this metric.



Includes energy use equivalent for fuel consumed by vessels operated through joint ventures on an equity share basis.

Read more

Altera's business units drive our sustainability agenda. For further explanation and details about fleet-specific emission intensity targets, decarbonisation initiatives, and performance in 2022, please refer to the individual business unit chapters.

→ Altera Production
→ Altera Shuttle and Storage
→ ALP Maritime Services

Commitment to the energy transition

Commitment to the energy transition

	Commitment to the energy transition
Commitment	Deliver new offshore energy infrastructure business models and technical innovations that will drive the energy transition
Strategic targets	**2026**: Allocate the majority of new capital to business ventures aligned with the energy transition **2030**: Generate the majority of cashflow from business ventures aligned with the energy transition
Material topics	• New ventures • Innovation in vessel design and technology • Risk and opportunity management
UN Sustainability Goals	7, 9, 13

Our position

Our industry's collective technical expertise is vital to the success of the energy transition. Our business must evolve to meet the world's climate challenge and position Altera for a role in the future energy system.

We will apply our skill, talent, and proficiency to delivering technically and commercially innovative new business ventures, technology, and offshore infrastructure solutions aligned with global climate ambitions.

Our actions

Through our New Ventures corporate unit, we identify and incubate new potential business models aligned with the energy transition. We are actively exploring opportunities in areas such as offshore

wind services, ammonia shipping, and carbon capture and storage (CCS). In 2022, we named a new EVP New Ventures, anchoring this corporate unit with executive leadership.

Our most developed new venture opportunity is Stella Maris CCS. In 2022, we strengthened the Stella Maris CCS team with several new roles and positioned Altera as one of the early movers on large-scale commercial CCS. The Stella Maris CCS team has established strategic partnerships with emitters, carbon capture companies, environmental NGOs, and industry associations to take a leading role in shaping the industry.

In March 2023, culminating nearly two years of work, Altera and Wintershall Dea were awarded an exploration license by the Norwegian Ministry of Petroleum and Energy to store CO_2 in the Havstjerne reservoir in the North Sea. The Havstjerne reservoir is optimal for our Stella Maris concept – it has a large capacity, low risk for CO_2 leakage, and contains no existing or abandoned production wells, making it ideal for safe and permanent storage of CO_2. The Havstjerne license is the fifth CO_2 storage license awarded in Norway.

Our performance

Within our New Ventures unit, we are maturing several new possibilities in the energy transition outside our traditional lines of business. The progress of such ventures through 2022, including specifically Stella Maris CCS, laid the foundation for future capital investment and revenue from such activities, in line with our established targets in this area.

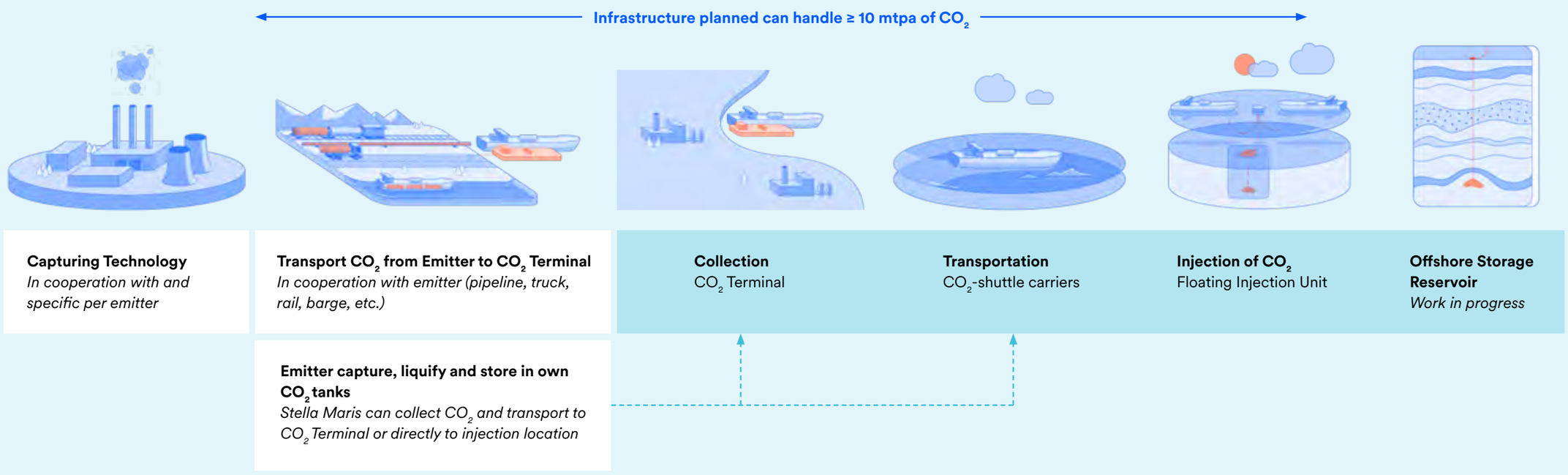
Stella Maris CCS

CCS solutions, which offer a way to permanently remove emitted carbon from the atmosphere, are likely crucial to meeting the goals of the Paris Agreement. Stella Maris CCS is a large-scale, flexible and scalable maritime logistics solution for captured CO_2 from industrial sources, both large and small. It includes everything from collection to storage.

The goal of Stella Maris CCS is to provide cost efficient floating CCS infrastructure solutions for a global market, not limited to size or geographical location.

Keeping CCS costs down requires large scale flexible solutions. The infrastructure planned for Stella Maris CCS is expected to handle large-scale volumes of more than 10 million metric tonnes per annum (mtpa) of CO_2. Our collective ambition is to become a global actor in achieving shared climate goals.

- A CO_2 terminal located in the proximity of a central cluster of industry, will allow for collection and processing of various grades and states of CO_2
- Shuttle tankers with a capacity of 50,000 m^3 of liquid CO_2 under low pressure, making the total amount of CO_2 injected up to 10 mtpa, equivalent to 20% of Norway's carbon emissions
- Offshore offloading system with dual buoys ensuring continuous injection
- Floating Injection Unit receiving CO_2 from the shuttle tankers and heating and pressurizing CO_2 for injection through a flexible riser
- Dedicated subsea systems, wells, and a suitable saline aquifer for safe and permanent storage of CO_2.



Through TEAMwork and innovation, we are shaping the infrastructure of offshore energy.

Altera Mission

Power of our TEAM

	Power of our TEAM
Commitment	Provide a work environment that is supportive, inclusive, and professionally rewarding where people can thrive
Strategic targets	**Annually** Rate of voluntary turnover of permanent employees below 7.5% group wide Representation of at least 35% for each gender within senior management
Material topics	• Attractive workplace • Accountability framework • Diversity and inclusion • New career opportunities aligned with the energy transition
UN Sustainability Goals	

Our position

Altera succeeds and endures on the strength, skills, and passion of our people. We seek out colleagues who are curious, resourceful, and driven to meet their greatest professional challenges, who believe in our vision, mission, and values, and who are passionate about building solutions for the energy transition.

We set clear roles and expectations, support honest and constructive feedback, hold ourselves and each other accountable for results, and foster a work environment that is supportive, inclusive, and welcoming of diverse experiences and viewpoints.

The way we work

We attract and retain competent and committed people by offering an empowering and positive working environment and a clear framework for professional development.

In line with our core value of Accountability, each person at Altera is accountable for their own deliv-

eries and for upholding our TEAM values – trust, excellence, accountability, and momentum. Our leadership teams embody these values, and employ our LEAD principles – leverage, engage, align, and develop – to lift the organisation towards our vision of a sustainable future.

We drive sustainable results through clear expectations and responsibilities set within our accountability framework, strong TEAM-work, and effective global systems and processes that facilitate collaboration.

As was the case for many other organisations, the COVID-19 pandemic fundamentally changed the way we work, driving rapid shifts in how we communicate and collaborate. As the pandemic ebbed in 2022, Altera adopted a “new normal” approach to onshore work, introducing more flexible working schedules and locations, including allowing partial work from home as a standard in all our offices.

Training and competence
Training is integral to our safety management and competence management systems. Training objectives and programmes are set according to regulatory requirements and industry standards. In 2022, we provided 29,519 hours of time-tracked training, including health, safety, and environment (HSE), cybersecurity, compliance, and leadership training. To ensure continued focus on leadership practice in accordance with our LEAD principles, we completed a global leadership program for 76 leaders in our onshore organisation.

The LEAD Principles

Leverage employee potential and foster teamwork, so that the team achieves more together than what otherwise would be possible (1+1+1=4). We do this by engaging commitment, aligning judgment, and developing capabilities.

Engage people, heart and mind, so they are committed and the whole team is set up for success.

Align judgment by providing context, so that everyone understands how their goal is linked to the team goals and the overall goals of the company. Ask for feedback and incorporate the thinking of the team.

Develop capabilities for people and help them reach their full potential, so that they are efficient in their current role and become ready for new roles. Provide regular coaching.

Altera Week 2022

Each year we host Altera Week, a week-long learning event that offers expert insight through webinars streamed to our global team. The goal of this event is to provide our entire workforce with the opportunity to learn about relevant topics, including those outside their areas of responsibility. In doing so, we hope to enlighten our teams on the various operations and projects, developing a common knowledge base while creating engagement and fostering a culture of learning.

For one week in September, we focused on showcasing the expertise within Altera as colleagues from across the company shared what they do every day. There were two sessions per day, covering a range of topics including the operations and commercial outlook for each of our existing business units, as well as updates on the activities of our New Ventures unit and Stella Maris carbon capture and storage (CCS) project.

#YouBelong

Promotion of diversity and inclusion is a top priority of both Altera’s 2030 business strategy and sustainability framework. We believe that a company benefits from diverse viewpoints and experiences within its workforce. Although there is still much work to be done, we are proud of Altera's progress towards this end.

Part of fostering diversity is creating a workplace where everyone feels they belong, regardless of their background, identity, or preferences. We focus on the ideas and contributions that each person brings to the table, and how we work together to achieve results for our customers and society.

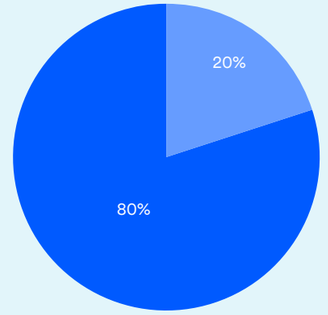
We continue to actively encourage and promote diversity and inclusion both internally and externally.Through an internal campaign termed #youbelong, our CEO has invited all employees to share their ideas and thoughts on how we can continue to improve and grow our diversity.

Our performance

Our workforce
As of 31 December 2022, we maintained a global workforce of 2,298 people; 20% of our workforce is onshore, and 80% offshore and aboard. Overall, 84% of our workforce is employed on a permanent basis.

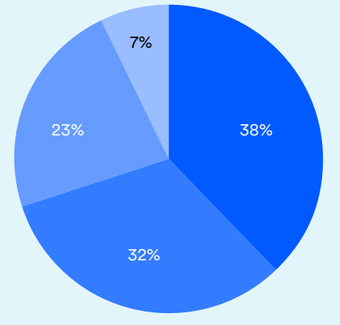
As of 31 December 2022, most of our employees were based in Europe (primarily Norway) (38%), and the Asia Pacific region (primarily the Philippines) (32%), with smaller shares in South America (Brazil) (23%) and other regions (primarily Canada in North America) (7%). We have historically maintained a large presence in the UK, but the decommissioning and redelivery of the two FPSOs operating in the UK – the Petrojarl Foinaven and Sevan Hummingbird – resulted in a drop in the number of UK-based employees.

Global workforce



Workforce includes all Altera employees and non-employee workers.

Employees by region



Retaining talent
The size and turnover of our workforce is driven by the number and duration of contracts for our vessels, our internal competency and capacity requirements, and the overall industry demand for technical and operational expertise.

We look to our rate of voluntary turnover of permanent employees as a measure of the strength and engagement of our workforce. Our goal is to keep voluntary turnover of permanent employees below 7.5% annually across our group. In 2022, the consolidated voluntary turnover rate for our group was 6.5%, a slight improvement from an overall rate of 7.6% in 2021 and within our annual target. Our turnover rate amongst onshore employees was higher at 12%, and higher still amongst female employees onshore at 14.5%.

Altera helps Ukraine relief effort

Our staff stepped up to help the people of Ukraine during the ongoing conflict with Russia by donating company-matched funds to the International Federation of Red Cross and Red Crescent Societies (IFRC). A total of USD 2,500 was collected from staff, which Altera then matched sixfold to bring the full donation to USD 15,000.

The money has been used by the IFRC to meet the humanitarian needs of people affected by the conflict, inside and outside Ukraine. The IFRC, together with the National Red Cross Societies in Ukraine and the surrounding countries, provide life-saving aid such as food, water, shelter, hygiene supplies, health care, and emotional support to those suffering under Russia's aggression. The Ukraine campaign is among the ten largest IFRC operations globally with a team of over 600 employed in the relief effort.

Several factors converged in 2022 to produce a higher-than-expected level of movement within our workforce, particularly onshore. We saw strong demand for technical expertise and talent within our industry. We saw some workers leave Altera for other opportunities and several of our vessels came off contract in 2022. Amidst this change, we focused on creating internal development opportunities and 11.5% of our workforce started in a new position or promotion during the year. We also welcomed new competence necessary to fulfil our strategic ambitions.

Gender equality
We strive to ensure that our workforce reflects the communities in which we work, with a diversity of experience and viewpoints. In 2022, 10% of our total group workforce was female, on par with prior years. This small share reflects that our industry, particularly offshore and aboard vessels, is heavily male-dominated – only 3% of our workforce offshore and aboard were women. In contrast, women made up 37% of our onshore workforce, 22% of executive leadership, and 20% of our board.

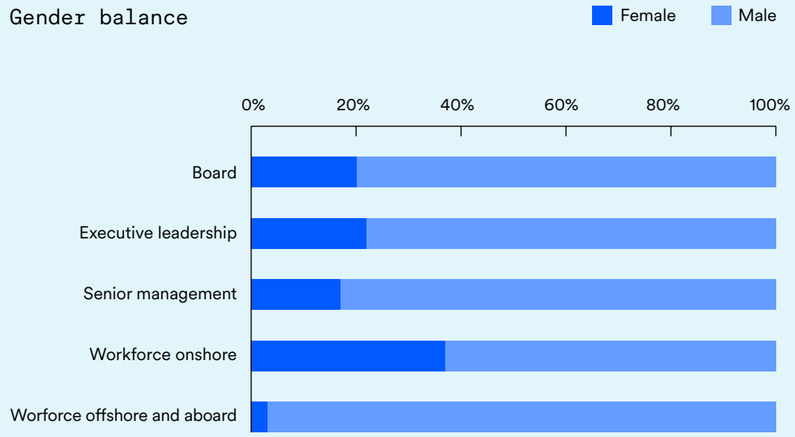
We are targeting at least 35% representation for each gender within senior management. Although the share of women in senior management in 2022 dropped slightly to 17%, from 20% in 2021, we continue to promote gender equality through active talent management.

Additional disclosures in accordance with the Norwegian Equality and Anti-Discrimination Act will be reported separately.

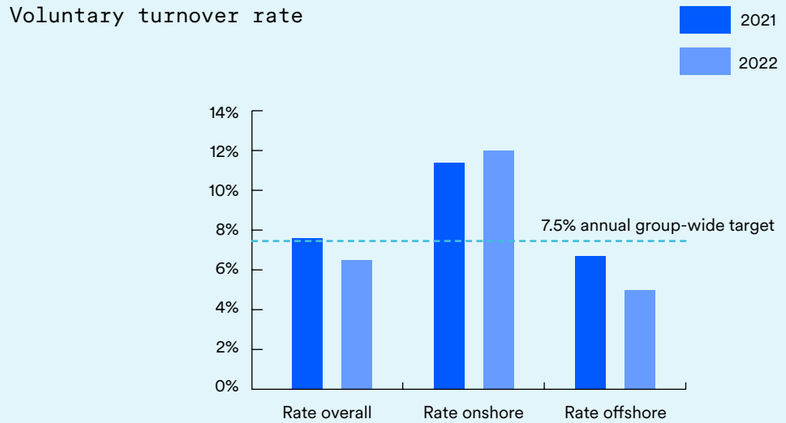
Read more
For more information about the Altera TEAMs across our business units and fleets, see the individual business unit chapters.

- Altera Production
- Altera Shuttle and Storage
- ALP Maritime Services

Gender balance



Voluntary turnover rate



Clean and safe operations

Clean and safe operations

Health and safety

The health and safety of our people is our license to operate. Our goal is zero incidents.

We incorporate a strong risk and opportunity-based approach to safety in our strategic and daily decisions and meet or exceed all applicable legislation and regulatory requirements. Each Altera business unit maintains an integrated management system certified for ISO 9001 (quality management), ISO 14001 (environmental management), and ISO 45001 (occupational health and safety).

We maintain rigorous emergency preparedness procedures for all our business units and onshore office locations, and regularly train our emergency response teams on these procedures. An aligned set of procedures is implemented for the Altera & Ocyan joint venture fleet of FPSOs in Brazil.

Transparent reporting and training are essential and provide a platform for continuous development. We encourage everyone to suggest ideas and improvements, and to report incidents and hazards. We share this feedback across our fleets to improve the way we work.

A proven health and safety toolbox

To protect our people and prevent incidents we:

- Systematically identify, assess, and control health and safety risks
- Manage hazards to prevent major accidents
- Extensively train onshore staff and crew
- Anchor safety as a line responsibility and personal accountability
- Empower everyone to stop work when safety is at risk
- Actively engage with our employees and their representatives
- Continuously improve our processes and performance
- Expect our business partners and suppliers to share our approach to health and safety.

Promoting safety through technology

We are finding ways to leverage new technology to improve our understanding of the technical condition of our vessels while reducing the need for human inspections – thereby leading to safer working conditions and reducing emissions from travel.

- The SENTIENT program, a collaboration with the Norwegian University of Science and Technology (NTNU) and other industry partners, develops autonomous drones for inspection of cargo and ballast tanks, without the need for workers entering the tank. This would significantly reduce risk related to entering and working in confined spaces, and make tank inspections less time consuming, together with better documentation of findings like cracks and corrosion. The name SENTIENT is an acronym based on the description “Science of resilient autonomy in perceptually-degraded environments”. Read more about the SENTIENT project here.

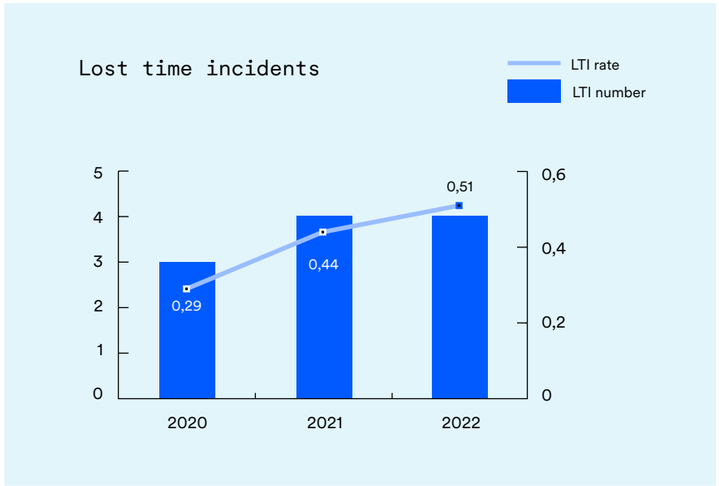
- The REDHUS (remote drone-based ship hull survey) project, led by DNV, develops robot-based inspections to enable more objective, consistent, standardised inspections and reporting, contributing to an increased inspection quality. Both the REDHUS and corrosion under insulation (CUI) programs offer new ways to control corrosion. The REDHUS program develops algorithms to interpret images taken by robots, and the CUI program makes use of censor data and algorithms to predict corrosion under insulation.

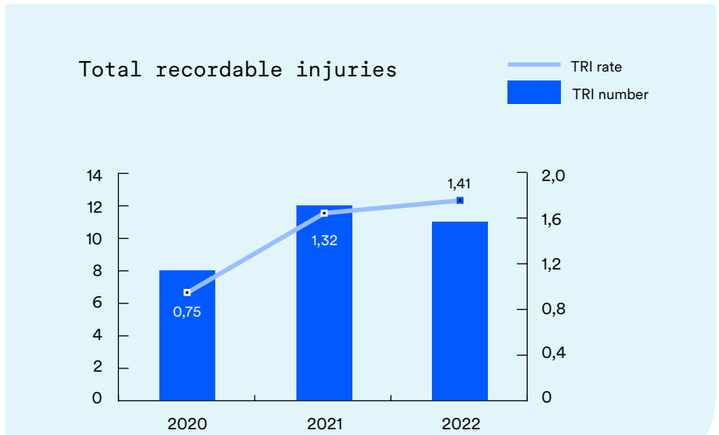
Our performance

In 2022, as a group we had no serious safety incidents. The number of lost time incidents (LTIs) and total reportable injuries (TRIs) across our group remained relatively stable compared to last year. Our consolidated group LTI and TRI frequency rates, which measure the number of LTIs and TRIs per million man-hours, increased due to fewer overall manhours as certain vessels came off contract.

Environmental impact

We monitor and evaluate environmental performance in all aspects of our operations, working continuously to reduce and mitigate our environmental footprint. We focus on preventing spills and maintain detailed spill response and emergency preparedness procedures to minimise the potential consequences of any spills that may occur. We work to reduce chemical use and, when possible, replace the chemicals we do use with less-harmful alternatives.





We take active steps and maintain strict procedures to minimise waste, including plastic waste, to properly segregate and recycle our waste where possible, and to otherwise dispose of the waste we generate in a responsible manner. To minimise waste, we buy in bulk instead of cans, we use environmentally friendly packing material to avoid generating waste, and we have a rigorous system for waste recycling to allow for re-use. Plastic shoe-covers are replaced with reusable covers, and plastic cups are removed and replaced with reusable cups both onboard our vessels and in our offices.

To protect against the transfer of invasive species, and ensure compliance with the IMO's Ballast Water Management Convention, we use tailored technology specific to each vessel type. 90% of our shuttle tanker fleet and 100% of our towage fleet employs tailored ballast water treatment systems.

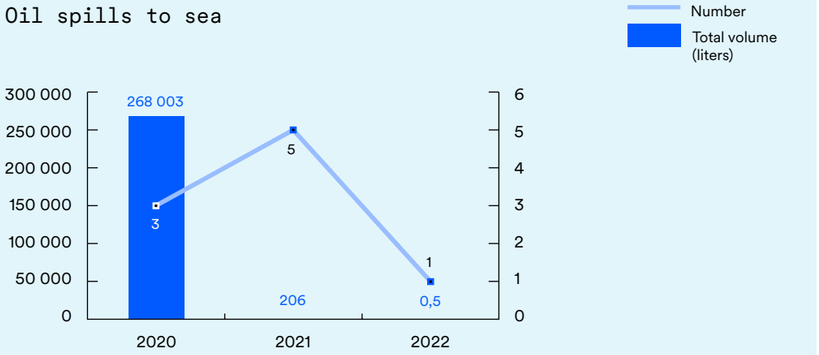
Our performance
In 2022, we recorded no chemical spills and one oil spill to sea with an aggregate volume of 0.5 litres. In 2022, the shuttle tanker and FSO fleets operated by our Altera Shuttle and Storage business unit generated 2,378 cubic meters of waste. Our ALP Maritime Services towage vessels generated 893 cubic meters of waste. These fleets hold Inventory of Hazardous Materials (IHM) certificates, which they follow to avoid bringing anything onboard that could later end up as hazardous waste. Neither fleet generated any hazardous waste in 2022.

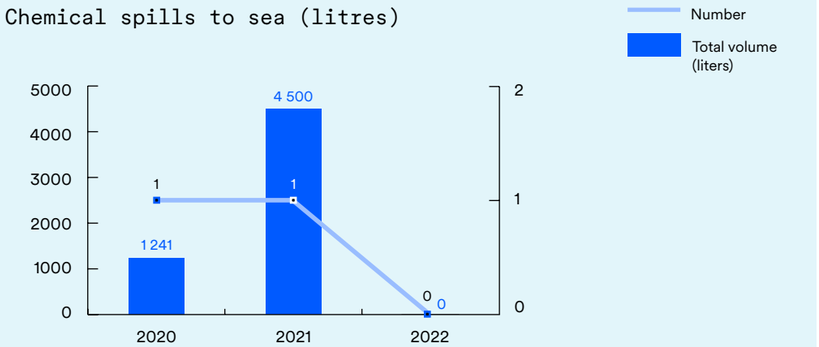
Our FPSOs measure waste in tonnes, rather than cubic meters, so we track and report waste from these vessels separately. In 2022, our FPSOs generated 720 tonnes of waste, about the same amount as in 2021. Of this, 29% was recycled and 38% was incinerated for energy. All hazardous waste was handled according to both internal procedures and applicable law.

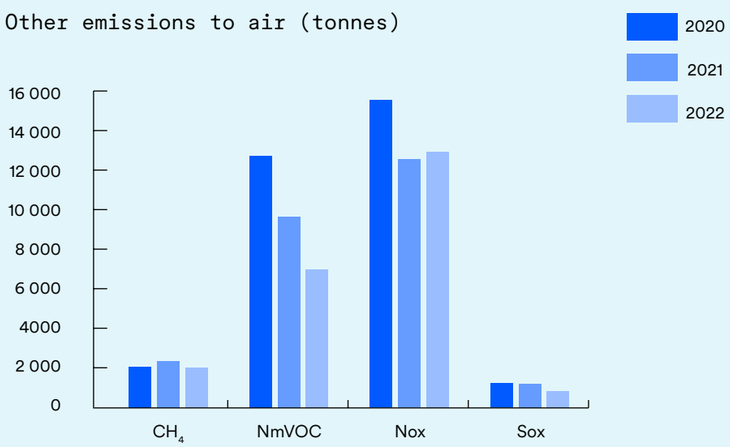
In 2022, our offices generated 26,766 kg of waste, a 61% increase compared to 2021, which reflects the general return to office as the pandemic wound down. 73% of this waste was recycled.

Read more
For information about the health, safety, and environmental performance of our fleets, refer the individual business unit chapters.

→ Altera Production
→ Altera Shuttle and Storage
→ ALP Maritime Services







Altera cleans up local beaches

Every minute, the equivalent of one rubbish truck of plastic is dumped into our oceans. Since 1972, when findings of marine plastic were first published in the journal *Science*, this problem has been largely ignored.

We are now seeing a growing wave of activity to mitigate this planetary crisis, from the ground-breaking 2022 UN treaty to end plastic pollution, to grassroots endeavours, such as the Altera beach-cleaning initiative.

For the third year running, our employees set aside their free time to clean up local beaches in support of International Coastal Clean-up Day. Teams from the Stavanger and Manila offices gathered with their rubbish bags and gloves ready to do their part. The Stavanger team noted that their local coastline was cleaner than the year before, but that there were still “thousands of tiny pieces of rubbish hidden in the sand”.

The 40 employees from the Philippine’s office managed to collect as much as 50 kilograms of waste along the 500-metre stretch of Manila Bay beach they visited. It isn’t just plastics, of course, that contribute to pollution; discarded rubber, wood, and beverage containers were collected as well. This event also provided an opportunity to socialise; family and friends came along, and lunch was provided by the company.

Responsible business

Compliance and ethics

Our core values of trust and accountability reflect our belief in conducting business ethically and in compliance with all applicable requirements regarding anti-corruption, international trade controls, competition, privacy, and human and labour rights. We require our board members and workers to confirm their commitment to our Code of Conduct in writing annually. In 2022, we adopted a Supplier Code of Conduct to clearly communicate our expectations to suppliers and business partners.

Combating maritime corruption
Our vessels may face maritime corruption risks when dealing with shore-side port authorities in certain countries, such as persistent requests for cartons of cigarettes from our vessels' bonded stores. Such requests are pervasive in certain locations, but we work consistently against them and maintain specific onboard procedures to guide our vessel crew to manage and resist such requests. Altera is a proud member of the Maritime Anti-corruption Network.

Maritime Anti-Corruption Network

The Maritime Anti-corruption Network (MACN), a global business network of committed maritime companies, works towards the elimination of all forms of maritime corruption by raising awareness of the challenges faced, implementing the MACN Anti-Corruption Principles, co-developing and sharing best practices, collaborating with governments, non-governmental organizations, and civil society to identify and mitigate the root causes of corruption, and creating a culture of integrity within the maritime community. Learn more about MACN here.

MACN

A proven compliance and ethics toolbox

To integrate business ethics and compliance into our actions and decision-making we:

- Conduct focused compliance risk assessments of ongoing operations and new undertakings to appraise the strength of our compliance programme and inform our consideration of new business opportunities
- Undertake rigorous risk-based due diligence for potential suppliers, customers, and counterparties fully integrated with our master financial system
- Regularly screen suppliers and customers against sanctions and restricted-party lists
- Conduct compliance reviews of proposed business transactions
- Provide mandatory annual compliance training for governance board members, employees, and contract staff, and additional targeted training for those with higher exposure to compliance risks
- Maintain hospitality and conflict of interest disclosure and approval requirements

Labour and human rights
All people are entitled to dignity and fundamental human and labour rights. We are guided in our business dealings by the United Nations' Guiding Principles on Business and Human Rights, and are committed to protect against negative impacts to fundamental human and labour rights in our global supply chain.

In 2022, in support of this commitment, we finalised a comprehensive group-wide human rights impact assessment identifying potential negative impact to fundamental human and labour rights in connection with our activities. This assessment focused on three broad groups of workers – crew on our vessels,

onshore staff in our offices, and workers at shipyards and other Altera key suppliers.

The outcome of this assessment informed certain updates to our governance framework. We adopted a new Global Human Rights Standard, which sets the baseline for our group-wide efforts, revised our third-party risk matrix, and introduced due diligence procedures focused on human and labour rights risk. We updated our standard contract terms and conditions to address human and labour rights more explicitly. We also expanded the content of our internal communication and resource channels to provide information about our current and planned human rights program measures.

We took steps to strengthen practical implementation of our governance requirements, such as through the development of human and labour rights-focused audit and monitoring procedures. In this effort, we focused in particular on workers supporting Altera's large Capex projects, such as workers at shipyards. This work will continue through 2023 and beyond.

We report annually in accordance with the UK Modern Slavery Act, the Norwegian Transparency Act, and the Norwegian Equality and Anti-Discrimination Act. For a full accounting of our human and labour rights due diligence, refer to these statements, which will be published at alterainfra.com by 30 June 2023.

Reporting concerns
We encourage anyone with compliance and ethics concerns regarding our business activities to report them – either directly to line management, to the legal, compliance or HR functions, or anonymously via the Altera Infrastructure Reporting Hotline.

The Reporting Hotline is a confidential and secure reporting tool administered by an independent third party that allows for anonymous reporting, where permitted by local law. It is accessible to our employees, as well as the general public, via our website at alterainfra.com.

Our performance
Our 2022 Code of Conduct training covered anti-corruption, conflicts of interest, and fraud prevention. The training was completed by 100% of our board, 100% of assigned onshore workforce and 83% of our assigned workforce offshore and aboard. In addition, we delivered more than 400 hours of targeted compliance and ethics training to relevant employees in our offices around the world.

In 2022, we recorded no instances of maritime corruption.

We did not receive, nor were we the target of any complaints regarding personal-data handling in 2022, and we had no reportable personal data breaches.

We have not been the target of any legal or enforcement actions regarding anti-competitive or monopolistic practices in 2022. Nor did we receive any material fines or non-monetary sanctions for non-compliance with laws or regulations.

In 2022, we received 7 reports of compliance and ethics concerns, either directly through our Reporting Hotline or via internal channels. All were handled in accordance with internal procedures.

Human rights due diligence activity

Active suppliers established in a high-risk country, regardless of supplier type	144
Active suppliers classified as high risk for human rights, based on supplier type	54
Active suppliers screened for human rights governance	24
Supplier audits conducted containing a human rights scope	3

In 2022, we initiated the development of focused monitoring procedures to test the strength of our compliance practices. We plan to iterate and refine these procedures within 2023.

Cyber security

Maintaining the security of critical cyber infrastructure is a key focus for Altera. The marine and offshore industries are increasingly exposed to cyberattacks. Rapid digitalisation and increased systems integration improves operating efficiency but also provides a broader attack surface for bad actors. Amid Russia's invasion of Ukraine, the risk of cyberattacks against energy and other critical infrastructure of Ukraine's allies increased significantly.

Cybersecurity is not solely a technological concern, but also a management and operational challenge, and our approach is a combination of people, process, and technology. We actively work to manage risks through continuous improvements in our competence, routines, and systems to safeguard our people, our assets, and our information. We maintain a full suite of IT infrastructure security measures, including multi-factor authentication (MFA) and industry-leading anti-virus and anti-malware protection tools. Our information security processes are practiced and iterated to prepare us for possible attacks and incidents, and we focus on training and awareness campaigns for our employees about the risks and implications of cybersecurity threats.

Our performance
We did not experience any material cybersecurity breaches in 2022.

Responsible recycling

Altera's preferred option when one of our vessels reaches the end of its commercial life is to find alternate employment, primarily through a sale for further trade, or conversions. We will only choose to recycle a vessel if we cannot identify a viable alternative use, and we proactively ensure that all recycling activity is responsible and compliant with applicable law.

We have a strict audit and inspection regime for approval of chosen ship recycling facilities (SRF) that goes beyond the standards set by the Hong Kong Convention. Dedicated staff with expertise in ship recycling oversee the entire recycling process to ensure compliance with all applicable requirements.

We maintain close working relationships with top tier SRFs in India, Turkey, and Norway to collectively learn and share competence with the aim of continuously improving relevant practices. We actively participate in industry forums, including the Ship Recycling Transparency Initiative (SRTI), to promote responsible ship recycling practices on an industry level.

Our performance
In 2022, we initiated recycling projects for two vessels – one shuttle tanker and one FSO. We expect both recycling projects to be complete within the first half of 2023.

Altera Infrastructure Production

2022 Sustainability highlights

Statistics for Altera-operated vessels only

7
FPSOs in fleet during 2022

4,396,156
bbl o.e total production

96,1
% uptime

What we do

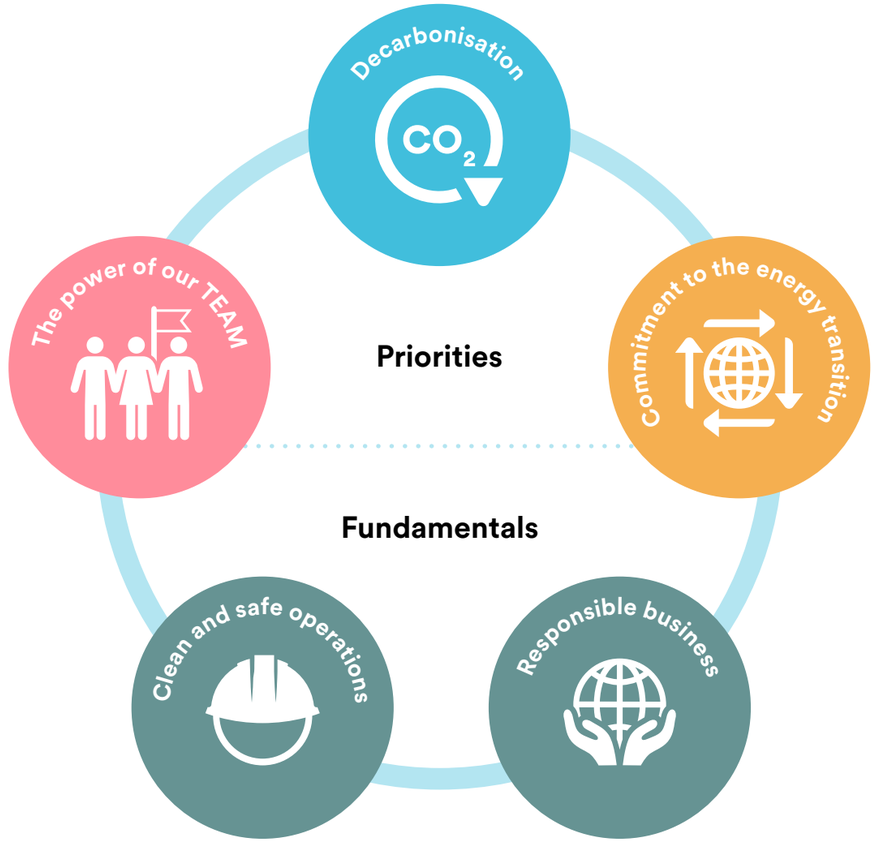
Altera Production specialises in designing, providing, and operating floating production, storage, and offloading (FPSO) vessels to extract hydrocarbons in deepwater and harsh weather conditions. With our fleet of FPSOs, our highly skilled employees, and more than 45 years of experience in the floating sector, we are the most experienced independent FPSO operator in the North Sea.

In 2022, we wholly owned and operated five FPSOs – Petrojarl Knarr operating in Norway, Petrojarl 1 operating in Brazil, Piranema Spirit undergoing yard maintenance in Brazil, Voyageur Spirit in lay-up in the UK, and Petrojarl Varg, which was in lay-up in Norway until being sold in May 2022.

In the first half of 2022, we also operated two FPSOs – Petrojarl Foinaven and Sevan Hummingbird – in the UK sector of the North Sea on behalf of Teekay Corporation, both of which were decommissioned and redelivered to Teekay Corporation within the year.

In addition, we held a 50% stake in three FPSOs and one tension leg manned wellhead platform through our joint venture Altera & Ocyan, operating in Brazil.

Altera sustainability framework



About this report
This sustainability highlights report is intended as a supplement to the Altera Infrastructure group 2022 Sustainability Report. It presents selected sustainability-related highlights from the activities of the Altera Production business unit. Unless otherwise indicated, all statistics and data are presented as for FPSOs directly operated by Altera Production. For full details of Altera's sustainability framework, reporting boundaries, performance, and complete 2022 environmental, social, and governance (ESG) disclosures, refer to the 2022 Altera group Sustainability Report at alterainfra.com.

Contact
We appreciate your feedback, comments and queries on this report. Please get in touch via **sustainability@alterainfra.com**

Health and safety

Health and safety are of the utmost importance at Altera. Minimizing potential hazards which pose a threat to our workers and subcontractors and preventing major accidents and incidents has our full management commitment and focus. We conduct annual health, safety, and environment (HSE) meetings and set strict protocols to continually improve our performance.

In 2022, we formally rolled out the International Association of Oil & Gas Producers (IOGP) Life Saving Rules for our operating FPSOs. Having already implemented some of these best practices for years, we strongly believe that this joint industry initiative will help ensure safer operations for both permanent employees and contractors working with several companies.

Three of our FPSOs, operating in Brazil, the UK and Norway under Altera management, had excellent HSE performances in 2022 and no recordable injuries for the year. One FPSO, the Petrojarl Foinaven, experienced three lost time injuries (LTIs) and two medical treatment injuries, resulting in a total of five total recordable injuries (TRIs) for our FPSO fleet during 2022. All injuries were minor, and the individuals recovered quickly and were back to work in short order. We investigated all accidents in accordance with internal procedures, and shared lessons learned across the fleet for transfer of experience.

We work continuously to prevent gas leaks onboard our FPSOs, and in 2022 we achieved zero gas leaks across our FPSO fleet.

HSE champions celebrated

Our commitments to health, safety, security, environment, and quality (HSSEQ) are essential to the long-term success of Altera Infrastructure. Whether providing a safe and healthy working environment, preventing pollution, or minimising our environmental impact, we are always looking to improve our processes and performance.

The President HSE Award aims to recognise a colleague, subcontractor or team whose proactive HSE actions are above and beyond of what is normally expected in their job – the award is presented quarterly.

We are proud to have recognised the following individuals for 2022:

Donal Ratcliffe, Asset Manager, in recognition of his strong leadership during decommissioning of the Hummingbird Spirit FPSO.

Christian Jahn, Asset Manager, for his outstanding HSSEQ engagement and operational results during the running and decommissioning of Petrojarl Knarr FPSO.

Thiago Dellatorre, Safety Officer, in appreciation of his dedication and passion for safety, and his ability to act as a role model for his colleagues on board the Petrojarl I FPSO.

Bjarne Brattlund, Offshore Installation Manager, for his extraordinary efforts in accomplishing safe transfer of the 3R3 FPSO from Petrobras to 3R. He promoted safe leadership, improved HSE culture, and ensured the vessel's systems and processes helped provide a safe workplace for everyone on board.

*Managing Director David Cannon (left) presents the President HSE Award to **Donal Ratcliffe** for his strong leadership during the decommissioning of Hummingbird Spirit.*

*Chris Brett (left) recognises **Christian Jahn** with the President HSE Award for his outstanding contribution to the success of Petrojarl Knarr.*

***Thiago Dellatorre** won for his dedication and passion for safety, and his notable leadership qualities on board Petrojarl I.*

***Bjarne Brattlund** won the fourth-quarter award for his exceptional efforts in ensuring safe transfer of the 3R3 FPSO.*

Artful way to support disadvantaged children

Although not on the scale of the Louvre, our company has amassed quite the art collection. Numerous paintings and drawings produced by the Altera art club, founded at our office in Aberdeen, were part of a charity auction in December 2022 organised by Magnhild Hauge.

The auction raised GBP 858, which was donated to the Aberdeen branch of the UK's Cash for Kids charity for local initiatives. The organisation's mission is to improve the lives of disadvantaged children and young people in UK communities who are affected by poverty, illness or neglect, or who have additional needs. Cash for Kids works with grassroots organisations helping families that often have nowhere else to turn. In 2022, it raised GBP 21.4 million to support 548,102 children and young people.

LTIs

3
total
3.81 LTI frequency[1]

TRIs

5
total
6.35 TRI frequency[2]

Gas leaks

0
total

[1] LTI rate is calculated as the number of LTIs per 1,000,000 man-hours on a 12-hour workday basis, assuming 7% estimated overtime
[2] TRI rate is calculated as the number of TRIs per 1,000,000 man-hours on a 12-hour workday basis, assuming 7% estimated overtime

Environmental impact

In 2022, we experienced no spills of oil or chemicals to sea from our operated FPSOs.

We closely monitor the proportion and amount of oil in produced water discharged by our FPSOs. In 2022, the average oil content of operational discharges to sea from Altera operated FPSO vessels was 14.4 parts per million.

In 2022, our FPSO generated 720 tonnes of waste, 37% of which was classified as hazardous. All hazardous waste was handled according to both internal procedures and applicable law.

Waste

720
tonnes

Oil spills

0
total

Chemical spills

0
total

Produced water

14.4
ppm average oil content

Power of our TEAM

Our organisation underwent significant changes in 2022, as three of our FPSOs were decommissioned. We retained a smaller team on Petrojarl Knarr for preservation work and operation readiness and assurance, but Sevan Hummingbird and Petrojarl Foinaven were both fully downmanned. Despite these challenges we continued normal operations seeing out all contracts thanks to the hard work and dedication of our onshore and offshore workforce.

During this time, our joint venture Altera & Ocyan secured an operation and maintenance (O&M) contract with 3R Petroleum Offshore for the 3R2 tension leg manned wellhead platform and 3R3 FPSO. As such, we were able to find alternative placements supporting our joint venture for many of our affected employees impacted by the decommissioning of three of our FPSOs.

Even amidst these changes, we have continued to provide career development opportunities. For example, we established a dedicated team for the front-end engineering design (FEED) contract for FPSO Petrojarl Knarr on Equinor's Rosebank field in the UK, which we filled with internal resources.

692
total workforce[1]

13%
onshore

87%
offshore

12%
women overall

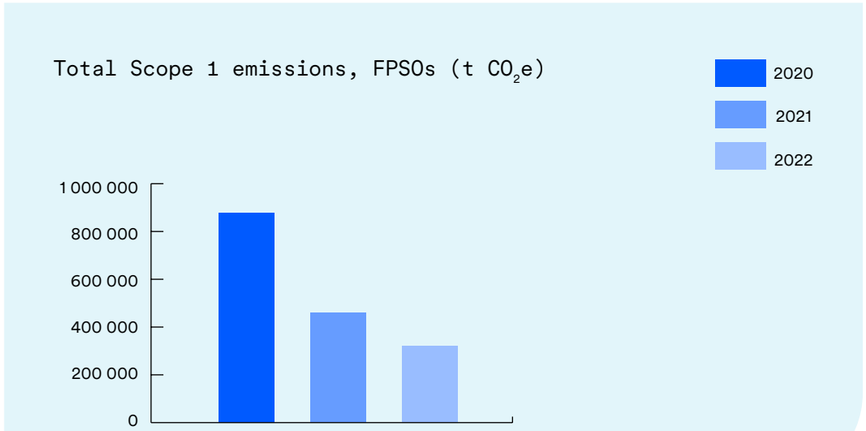
44%
women onshore

7%
women offshore

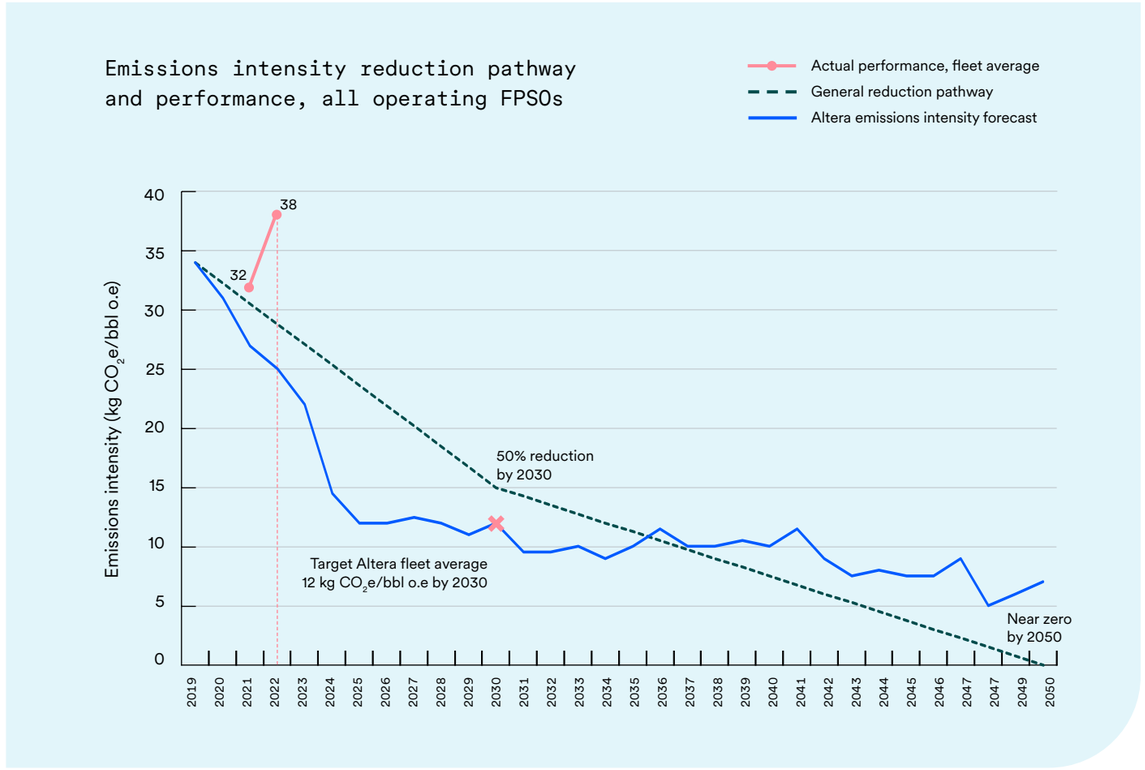
[1] Workforce includes employees and non-emplpoyee workers and is calculated on a headcount basis as of the end of the reporting period; does not include shared Altera group corporate resources.

Climate impact

A shift is underway in our FPSO fleet. In recent years, several older FPSOs with higher emissions profiles have come off contract. In 2022, our total Scope 1 emissions (including Scope 1 emissions from FPSOs operated through joint ventures on an equity basis) decreased 30.3% as compared to from 2021 as several FPSOs ceased operations. We expect that the replacement of these older vessels with newer, more carbon efficient vessels will result in a comparative overall decrease in the volume of Scope 1 emissions from our fleet going forward.



Totals include Scope 1 emissions for FPSOs and other production assets operated through our joint venture, Altera & Ocyan, based on our 50% equity share.



Emissions intensity is calculated as Scope 1 and Scope 2 emissions divided by barrels of oil equivalent produced and is calculated only for operating FPSOs managed by Altera (excludes FPSOs in lay-up and FPSOs managed by our joint venture, Altera & Ocyan).

Reducing our emissions intensity

Because absolute emissions fluctuate based on contract status and operating activity, we also measure the emissions intensity of our FPSOs by tracking emissions per barrel of oil equivalent produced (kg CO_2 e/bbl o.e). From 2022, we calculate emissions intensity on the basis of Scope 1 and Scope 2 emissions for operating FPSOs operated by Altera.

In 2022, we took the additional step of establishing a concrete target to significantly reduce the FPSO fleet-average emissions intensity by 70% by 2030, compared to our 2019 performance. Our target is to achieve a fleet average emissions intensity of less than 12 kg CO_2 e/bbl o.e by 2030.

Predicated on the implementation of known and anticipated technological solutions for upcoming FPSO projects in our fleet, this target has been set based on estimates within the FPSO emissions intensity reduction pathway, as illustrated in the figure on this page.

This target will be possible to achieve by further adopting our standard low emission technologies as well as introducing new low emission technology in close cooperation with our clients and vendors. Prediction and consideration of emissions early in project sanctioning is important to ensure balanced decision-making with regard to the overall life cycle of the asset. Built-in flexibility will ensure maximum power utilisation over time, especially during late life and tail end production. One example is the Knarr redeployment project, where the FPSO is being prepared for power from external sources. It is anticipated that this will happen by 2031 at the latest, in time to ensure effective, low emission production, specifically throughout the tail end production period. In 2022, our Altera-operated FPSOs generated on average 38 kg CO_2 e/bbl o.e, a 18.8% increase from 2021. The increase results from the decommissioning of three FPSOs that went off-field in 2022. During decommissioning, an FPSO continues to burn fuel to power onboard turbines, but does not produce oil or gas from the reservoir. As a result, emissions intensity increases.

We expect to add operating and producing FPSOs to our fleet within the coming years, which should improve our fleetwide emissions intensity performance. For comparison, the emission intensity for our FPSOs in continuous production throughout 2022 (excluding operating FPSOs engaged in decommissioning work) generated an average of 22 kg CO_2e per barrel of oil equivalent.

Flaring
We are committed to reducing flaring from our FPSO fleet. Flaring is the controlled burning of natural gas and is used to safely dispose of gas when it is not possible to otherwise capture it. Our standard FPSO solution offered to clients includes a closed flare system, and we actively work with our clients to reduce flaring from our FPSOs while maintaining safe operations. We do not engage in continuous flaring, and each of our operating FPSOs follow a flaring philosophy focused on identifying possible technical and operational controls to reduce flaring.

FPSOs operated by Altera produced 9,036,768 standard cubic meters of flare gas in 2022.

The emissions produced from flaring vary depending on the composition of the flare gas at a specific installation. We incorporate the carbon equivalent of our flaring in our disclosed emissions data. Release of methane in connection with flaring is included in the methane disclosure of other emissions to air. Refer to the Disclosures Table of the Altera group 2022 Sustainability Report for full data.

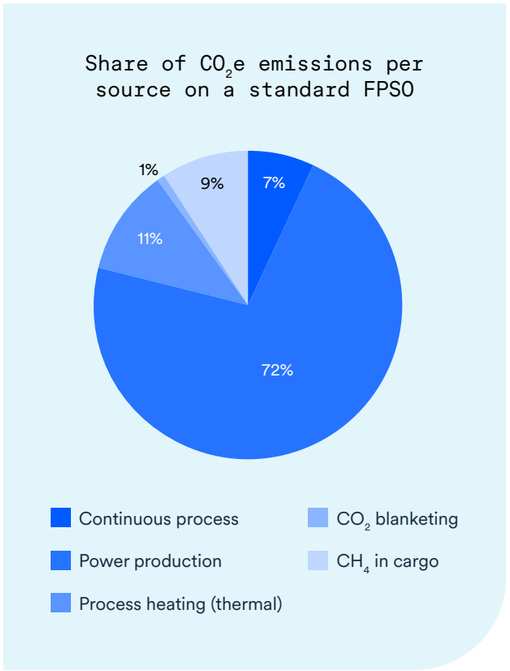
Abate notation for Altera FPSOs
In 2021, Altera became the first FPSO owner in the world to adopt DNV's Abate class notation, which assists the owners and operators of offshore floating installations to identify and implement measures to reduce emissions by providing a structured approach to tracking abatement based on the design and operation of the individual installation.

We adopted the notation's flaring and storage tank qualifiers for the Petrojarl Knarr. To meet the emissions abatement expectations of these qualifiers, we implemented measures such as data capture and tracking and analysis of potential flare and VOC release situations. We also developed an abatement plan including technical and operational controls, which will be followed up with a five-year plan for emission abatement and an emission review annually. In 2022, we performed the first emission review according to Abate qualifiers on Petrojarl Knarr and based on this analysis applied measures to reduce flaring during decommissioning from the Knarr field.

Going forward, we will adopt the Abate notation as standard for any new Altera FPSO projects and redeployments.

Our FPSO technology positioning

Building emissions reduction into FPSO design
Nearly all emissions on a conventional FPSO come from power turbines, engines, heaters, and flaring. Implementing a closed-flare system along with solutions such as drawing electrical power from external sources, carbon capture and storage (CCS), or carbon free firing of turbines/engines, could reduce Scope 1 emissions to near zero.



Excluding unplanned flaring

We closely track the status of available, developing, and potential future technologies to ensure we are well-positioned to implement the most effective and promising options. By incorporating the best of these into our vessel designs, we can guide our customers early on to meet the project's sustainability targets.

By building on our experience and listening to customers and supply partners, we are developing sustainable, digitally advanced, and more effective FPSO solutions for all environments. Our standard offshore customer offering reflects our commitment to be a market leader in the deployment of sustainable technologies and incorporates solutions that cut emissions, including:

- Volatile organic compound (VOC) recovery system
- Waste heat recovery units (WHRU)
- Smart use of variable frequency drives (VFDs)
- Closed flare system
- Efficient and reliable water treatment processes

Redeployment of Knarr
In January 2023, Equinor selected Altera as contractor for the redeployment of Petrojarl Knarr FPSO to the Rosebank field in the harsh waters west of Shetland. The project is a good example of how Altera can work with clients to deploy technological solutions to meet their sustainability goals. Built in 2014, the Petrojarl Knarr FPSO is a relatively new and modern asset. It was constructed with additional space for intake of electrical power from external sources, as well as additional features such as a vapor recovery system and closed flare system, which could reduce Scope 1 emissions from the FPSO to near zero. Further modifications will be performed as part of the contract to prepare the vessel for full electrification when Equinor and its partners are ready to provide power to Knarr from external sources.

Next generation low-emissions FPSOs

The operational life of an FPSO is typically 20–25 years. As such, most of the vessels being installed now are expected to operate well beyond 2040. To comply with future regulations and meet both Altera's sustainability ambitions and those of our clients, it is crucial to anticipate the next generation of low-emission FPSO technology and find ways to incorporate this technology in today's newbuild and upgrade designs.

Altera has been deploying the best available FPSO technologies since 2015, when Petrojarl Knarr started operations using a closed flare, waste heat recovery unit, and volatile organic compound (VOC) recovery system – all of which were next generation technologies at the time.

We continue to develop next generation technology, with solutions that are tailored to our clients' needs.

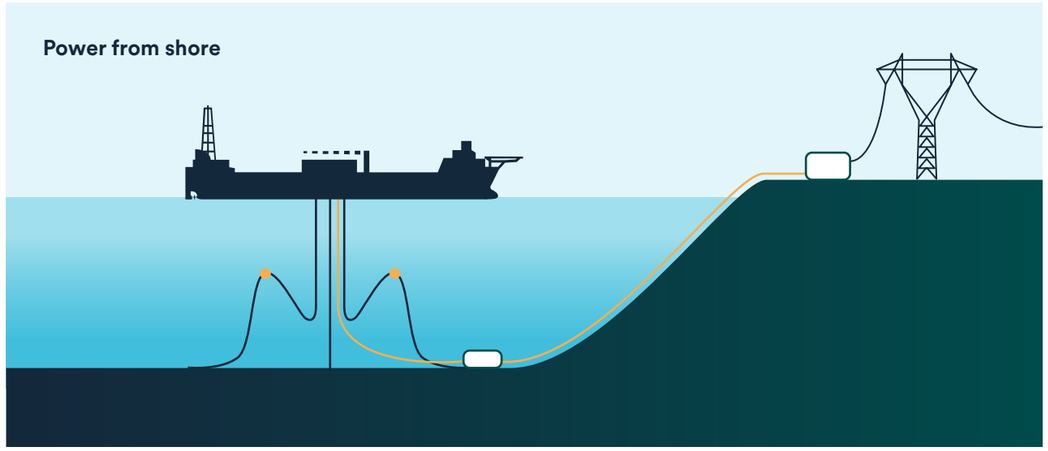
We are conducting technical and commercial evaluations of different low emission technologies so we can assist clients in making the best choice for their specific development. We have created an internal task force to carry out extended research of low emissions solutions and are currently assessing the emission reduction capabilities and associated costs of various technologies compared to a standard FPSO.

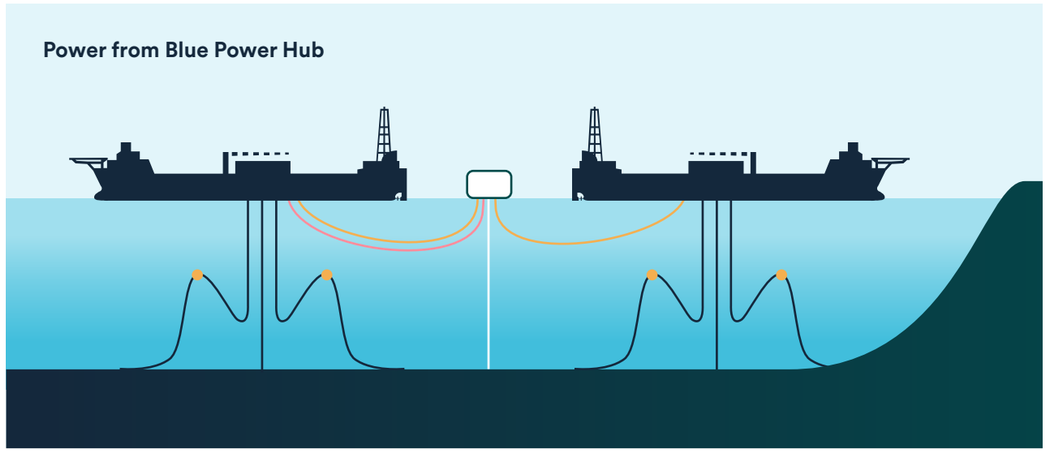
We have divided potential emission reduction technologies into three areas. The first focuses on emissions-reduction technology onboard the FPSO and includes an assessment of combined heat and power cycle and deployment of a carbon capture module. The second area focuses on the effects of using power from external suppliers, either from the grid, a power hub, or floating wind turbines. The third area considers the use of alternative fuels, such as ammonia, hydrogen, or biofuels, to generate onboard power, and will be assessed during 2023.

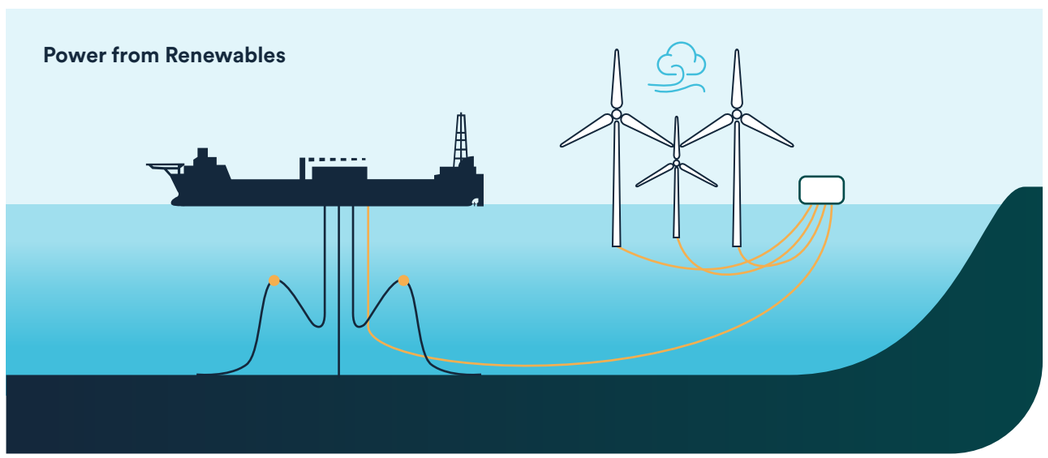
We are contributing to the development of these solutions by carrying out internal research and development work, and by collaborating with the industry and academia. In 2022, we remained an active partner of the LowEmission research centre led by SINTEF in Trondheim, Norway, as well as the Net Zero Technology Centre in Aberdeen, UK. Altera also became an industry partner of the HYDROGENi research program in Trondheim, Norway in 2022.

TEAM-work is vital to meet shared sustainability ambitions. To develop and deploy low emission FPSOs we must join forces with different stake-holders. We have mapped key suppliers that can develop the technology required, with whom we are in constant dialogue. Government will also play an important role in developing regulations that will support the shift to green technology and we are following this landscape closely.

The outcome of this work will secure Altera's position as a leader in design and operation of the next generation of low emission units and will support our clients in their emission reduction efforts through the energy transition period.







The *Net Zero Technology Centre* (NZTC) was established in 2017 with the purpose of developing and deploying technology for an affordable net zero energy industry in the UK. Since its inception, the NZTC has screened more than 1,640 technologies, completed or initiated more than 175 field trials, and developed 33 commercialised products in support of this ambition. Read more about the NZTC here.

LowEmission is a research centre for low emission technology for petroleum activities on the Norwegian continental shelf (NCS). *LowEmission* connects world-leading Norwegian and international industrial entities, including vendors, operators, and energy companies, with globally-recognised research groups at SINTEF, one of Europe's largest independent research institutes, the Norwegian University of Science and Technology (NTNU), and other top-rated universities and research institutes. The mission of *LowEmission* is to pave the road towards zero-emission production of oil and gas from the NCS by developing new technology solutions and concepts for offshore energy systems and integration with renewable power production technologies. Read more about *LowEmission* here.

HYDROGENi is a research program within the Centre for Environment-friendly Energy Research (FME) with the aim to spearhead the research and innovation needed to fulfil the 2030 and 2050 visions of the Norwegian hydrogen roadmap. *HYDROGENi* centre's aim is to build a sustainable hydrogen economy and will focus on four main research areas:

- Cost-efficient and scalable production
- Transport and storage in Norway and Europe
- End-use technologies
- Safety and material integrity

To realise hydrogen's full potential, there are numerous knowledge and technical gaps that need to be filled. As such, *HYDROGENi*'s activities are a collaborative effort from over 50 Norwegian and European partners from both research and industry that cover the entire hydrogen value chain. Read more about *HYDROGENi* here.

Digital twin
Altera has made the strategic decision to enter the world of digital twins, developing digital representations of our assets which will empower the onshore organisation with improved data quality and operational support capability.

Our definition of a digital twin:
- **Physical** – 3D model, 3D scans, photogrammetry etc.
- **Actual** – live data/process values, historical data, condition monitoring
- **Virtual representation** – steady state, dynamic simulation of process plant, operator training models, open/closed loop process optimization

The first step in creating a digital twin was establishing a firm grip on life cycle information management (LCI), investing time and resources in developing work processes, and governing documents, as well as getting into place the necessary systems to facilitate the use of LCI.

Alma, the soul of Altera
Alma, meaning "soul" in Portuguese, stands for "Altera Life cycle information Management", and serves as the foundational environment in which the digital twin will be developed. The system is based on Aveva's Asset Information Management (AIM) platform and is currently installed and awaiting set-up preparations for FPSO Knarr at the Rosebank field.

The system is integrated with operational document management, project document management and computerised maintenance management systems, where the intention is to integrate all systems adding value to a digital twin.

Alma hosts the master tag register, tag-doc relations, dynamic 2D drawings, and 3D models. Regarding all other information and data, these will be hosted in their respective systems but linked and made available through Alma. For example, Altera's current operational document database is PIMS where documents can be accessed through a web portal. For future operations, Alma will be the single point of access for document retrieval, together with all other relevant data connected to a specific tag – a one stop shop for all information.

Vision and goals of the digital twin
The Alma initiative aims to create a digital twin for all new operations for the purpose of continual development and improvement to ensure optimal asset conditions and successful operation. It will be a powerful tool that brings context to data to enable precise decision making through identifying and establishing points of integrations with all systems and functions that provide added value, such as condition monitoring systems, historian databases, predictive and analytical tools, equipment databases, document management, management of change, 3D models, and more.

Kari Lian from the Church City Mission receives clothes donations from Elisabeth Hamstad, Altera Production.

Caring for our refugee community

Of the estimated 7.98 million refugees displaced by the devasting conflict in Ukraine, over 37,400 have applied for asylum in Norway. Several Norwegian aid organisations have mobilised and asked for help. The Church City Mission in Trondheim, or Kirkens Bymisjon as it is called in Norwegian, is part of this effort and has asked citizens for clothes, shoes, towels, linens, toys, and other items for Ukrainian refugees. At the top of the list last autumn was suitable clothing and footwear to combat the harsh Norwegian winter.

Marte Gresseth and Elisabeth Hamstad, from our Trondheim office, responded with a concerted effort to collect all items that could be of use. Many in the office contributed, and several people helped deliver donations to the Mission's headquarters located in the heart of the city.

Marte says: "Our colleagues were very generous. Altogether, we collected a large number of bags full of clothes, including a lot of winter wear. The items were gratefully received, and we were told that the contributions would be put to good use among the Ukrainian refugee community in and around Trondheim."

Petrojarl Knarr's Trond Nes (left), representing SAFE, and Magne Helgesen present a gift of NOK 30,000 to the Salvation Army's Marianne Naustdal onboard Petrojarl Knarr.

A helping hand at Christmas

With the escalated cost-of-living in many countries, low-income families and individuals are in growing need of assistance for life's essentials. The Salvation Army helps people in need with weekly gifts of food.

To assist these efforts, our team from Petrojarl Knarr made a donation in December to their local Salvation Army corporation that covers Stord and Fitjar municipalities, located between Bergen and Stavanger on Norway's west coast. The FPSO's SAFE union, and the Knarr team donated from its welfare fund, and prize money from the HSE President Award for a total donation of NOK 30, 000.

Marianne Naustdal leads the Army's work in Stord and is instrumental in the organisation's food distribution programme. She says: "We usually help around 130 people weekly, but when it comes to December, the number of people increases substantially, rising to 380 this year. Altera's important contribution has been used towards our Christmas boxes, which contain basic foodstuffs and special Christmas items. These are largely distributed to those who fall outside of the country's welfare support system, such as refugees and those struggling with drug addiction. We are reliant on the generosity of companies such as Altera and are very thankful for the gift."

Altera Infrastructure Shuttle and Storage

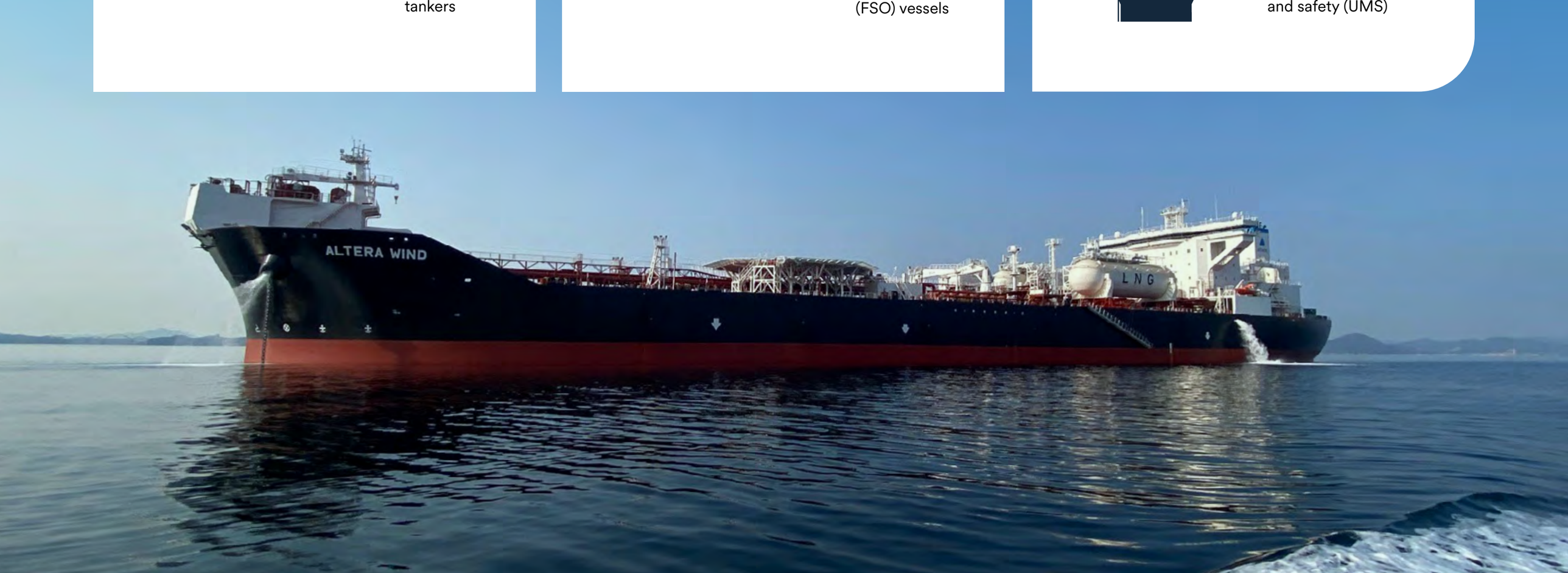
2022 Sustainability highlights

Vessels owned or operated in 2022

24
Shuttle tankers

3
Floating storage and offloading (FSO) vessels

1
Unit for maintenance and safety (UMS)

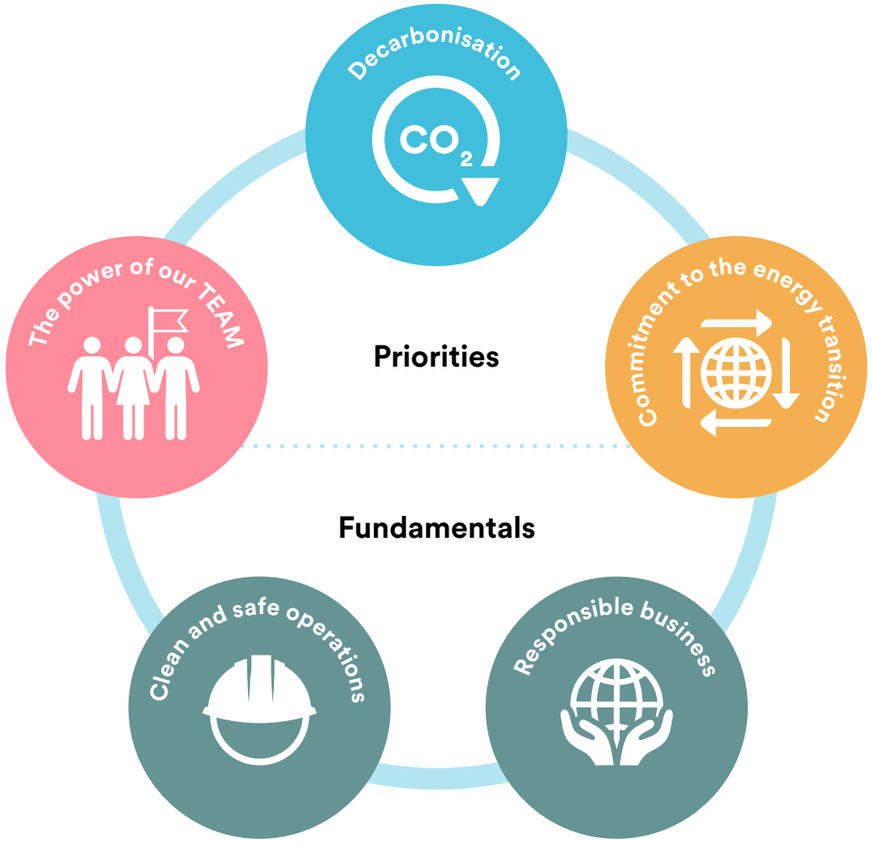


What we do

Altera owns and operates three vessel segments through the Shuttle and Storage business unit – shuttle tankers, floating, storage, and offloading (FSO) units, and one unit for maintenance and safety (UMS). Shuttle tankers transport crude oil and condensates from offshore oilfield installations, usually to onshore terminals and refineries.

FSO units provide on-site storage for oilfield installations that have no storage facilities or require supplemental storage. UMSs are used primarily for offshore accommodation, storage, and support for maintenance and modification projects on existing offshore installations, or during the installation and decommissioning of large offshore assets, such as floating production and storage units, floating liquefied natural gas units, and floating drill rigs.

Altera sustainability framework



About this report
This sustainability highlights report is intended as a supplement to the Altera Infrastructure group 2022 Sustainability Report. It presents selected sustainability-related highlights from the activities of the Altera Shuttle and Storage business unit. For full details of Altera's sustainability framework, reporting boundaries, performance, and complete 2022 environmental, social, and governance (ESG) disclosures, refer to the 2022 Altera group Sustainability Report at alterainfra.com.

Contact
Get in touch with us at **sustainability@alterainfra.com**.

Health and safety

Health and safety are of the utmost importance at Altera. In 2022, we recorded one lost time incident (LTI) and six total recordable cases (TRCs) from our shuttle tanker fleet. The injuries were minor and recovery times quick. We experienced no LTIs or TRCs from our FSO fleet.

Shuttle and FSO fleet health and safety performance

LTIs

1
total
0.23 LTI frequency[1]

TRCs

6
total
1.35 TRC frequency[2]

[1] LTI rate is calculated as the number of LTIs per 1,000,000 man-hours on a 24-hour workday basis.

[2] TRC rate is calculated as the number of TRCs per 1,000,000 man-hours on a 24-hour workday basis.

Environmental impact

In 2022, we recorded only one oil spill to sea. A spray in the blow loading system onboard one of our shuttle tankers resulted in a spill of about four litres of crude oil onboard, of which 0.5 litres spilled to sea. Given the small volume of the spill, no remediation was undertaken.

Oil spills

1
total
volume 0.5 litres

Chemical spills

0
total

Waste

2,378
m^3

VOC Industry Cooperation (VOCIC)

Our shuttle tanker operations emit volatile organic compound (VOC) gases during loading of crude oil, which contain mainly methane and propane. Both contribute to the greenhouse effect, but the non-methane VOCs (NMVOCs) form ground-level ozone that can harm both human health and plant life.

The NMVOC emission limit on the Norwegian Continental Shelf (NCS), established in 2002, drove the formation of the VOC Industry Co-operation (VOCIC), which consists of all NCS field license owners using shuttle tankers to transport crude oil. This group collectively invests in onboard VOC reduction technologies and reports its members' NMVOC emissions to the Norwegian Environment Agency. Altera has held the VOCIC Administrator role since the start of the alliance, which means we provide technical support to all shuttle tanker owners on the NCS with VOC reduction technologies onboard their vessels. We also monitor emission performance, set budgets, and make short- and long-term investment plans on behalf of the group. Since its launch, VOCIC has spent close to USD 500 million on VOC reductions.

Green Shipping Programme

The Green Shipping Programme (GSP) is a public-private partnership that aims to advance the Norwegian government's maritime strategies and plans. The programme's vision is to develop and strengthen Norway's goal to establish the world's most efficient and environmentally-friendly shipping. Since its inception, the Programme has initiated 35 pilot projects, 11 of which have been realised and are under construction. Altera has participated in 10 of the pilots and has been the pilot owner of two. Read more about the GSP here.

Norwegian Shipowner's Association: Climate and Environmental Committee

In 2022, Altera are proud to have been asked to chair the Climate and Environmental Committee, part of the Norwegian Ship Owner's Association, for another two-year period. We have held the role as chair since 2019, and are, together with some of the most forward leaning Norwegian shipping companies, working towards ambitious but fair, domestic, regional, and international environmental frameworks to guide our industry.

Responsible recycling

Altera has a dedicated, expert team which oversees the recycling of all our vessels. We maintain a strict audit and inspection regime for approval of chosen ship recycling facilities that goes beyond the standards set by the Hong Kong Convention. To actively promote responsible ship recycling, Altera is a member of the steering committee of the Ship Recycling Transparency Initiative. For our disclosures and more, please visit www.shiprecyclingtransparency.org.

In 2022, we initiated two recycling projects – one shuttle tanker and one FSO – in Turkey and India, respectively. We expect both recycling projects to be complete within the first half of 2023.

Recycling projects in 2022

Vessel	Vessel type	Recycling Location	Project Start	Project Status
Falcon Spirit	FSO	India	August 2022	Ongoing
Petronordic	Shuttle tanker	Turkey	September 2022	Ongoing

Power of our TEAM

Altera succeeds and endures on the strength, skills, and passion of our people.

We seek out colleagues who are curious, resourceful, and driven to meet their greatest professional challenges, who believe in our vision, mission, and values, and who are passionate about building solutions for the energy transition.

In 2022, we delivered leadership training for more than 50 people in our organisation customised to include topics that suit the working environment onboard the vessel and incorporate the Altera TEAM values. With the participation of onshore employees who work closely with our seafarers, we focused on establishing a stronger ship-to-shore connection and on the challenges of leading people in different work environments.

Also in 2022, for the first time since the COVID-19 pandemic began, we were able host in-person seafarer conferences. In October, we held an officer conference in Stavanger for 51 participants, and two seafarer conferences in the Philippines for 139 participants.

1,051
total workforce[1]

7%
onshore

93%
aboard

3%
women overall

31%
women onshore

[1] Workforce includes employees and non-emplpoyee workers and is calculated on a headcount basis as of the end of the reporting period; does not include shared Altera group corporate resources.

Managing our climate impact

We believe reducing greenhouse gas (GHG) emissions from our operations is a competitive advantage. To drive emission reductions, we focus on improving operating efficiency, implementing technical enhancements where appropriate, actively renewing our fleet with less carbon-intensive vessels as we approach 2030, as well as looking for growth opportunities for such new vessels.

We monitor our absolute Scope 1 emissions on a CO_2-equivalent basis. Scope 1 emissions from our shuttle tankers increased 4.2% from last year, to 582,654 t CO_2e. Some of our vessels can run on either liquid natural gas (LNG) or conventional fuels and the increase is largely due to escalated use of MGO, a higher carbon intensity fuel, as instructed by some of our clients in response to the historically high gas prices seen in 2022. Scope 1 emissions from our FSOs fell 19.8% from last year to 19,304 t CO_2e, due to one of the assets ceasing operation in early Q3 2022. Our UMS did not produce material Scope 1 emissions in 2022 because operations during year were managed by a third party.

Scope 1 emissions, shuttle tankers

582,654
t CO_2e
4.2% increase compared to 2021

Scope 1 emissions, FSO fleet

19,304
t CO_2e
19,8% decrease compared to 2021

We reported no material Scope 1 emissions for our UMS in 2022 because all operations within the year were managed by a third party. These emissions are instead captured in our Scope 3 reporting.

New IMO Carbon Intensity Indicator (CII) methodology

In connection with new International Maritime Organization (IMO) regulations, the IMO introduced a new carbon intensity metric for ships at the end of 2022. The IMO carbon intensity indicator (CII) measures how efficiently a vessel above 5,000 GT deadweight transports goods or passengers and is given in grams of CO_2 emitted per cargo-carrying capacity and nautical mile (g CO_2/dwt-nm).

Certain vessels, including shuttle tankers, may also apply a correction factor to the calculation of CII. Shuttle tankers produce significantly higher CII values than conventional deep sea trading tankers. This is due to the operational nature of shuttle tankers, which tend to take short voyages with frequent loading and off-loading of cargo; such activities produce substantial emissions while operating on dynamic positioning to lift cargo at an offshore oilfield (during which they are burning fuel at zero sailed distance). The correction factor allows shuttle tankers to be appropriately compared to conventional tanker vessels, on which the IMO's baselines and rating thresholds are based.

Prior to 2022, Altera measured the carbon intensity of its shuttle tankers as the annual efficiency ratio (AER), also given in g CO_2/dwt-nm, but without a correction factor. The CII figures for our shuttle tanker vessels listed in this report incorporate the new correction factor, and historic data has been adjusted and restated accordingly. In accordance with IMO's updated methodology, we have also updated the baseline for our target. Previously, we relied on historic emissions data to establish a 2009 baseline based on actual carbon emissions. IMO's current methodology anticipates a calculated 2008 baseline.

Detailed explanation of the IMO's shuttle tanker correction factor is available from the IMO.

Altera donates to Alang Hospital

Embracing the spirit of Christmas, we donated over USD 7,500 in December to the Alang Hospital on behalf of all employees in the Stavanger office. Built in 2019, the Red Cross-run multispeciality hospital is located in the Gujarat state of India, and provides local medical care for thousands of inhabitants and migrant workers.

Known for what is probably the largest ship-recycling facility in the world, consisting of 183 individual yards spread along a 14-kilometre stretch of Arabian Sea coast, Alang has been the final destination for several Altera vessels.

This donation will be used for purchasing general medical supplies to enable the hospital to continue to provide invaluable care for yard workers and their families. The donation is an extension of our policy to provide community support in areas where we have a presence, and we are very pleased to have the opportunity to sponsor such a worthy cause.

Reducing our carbon intensity

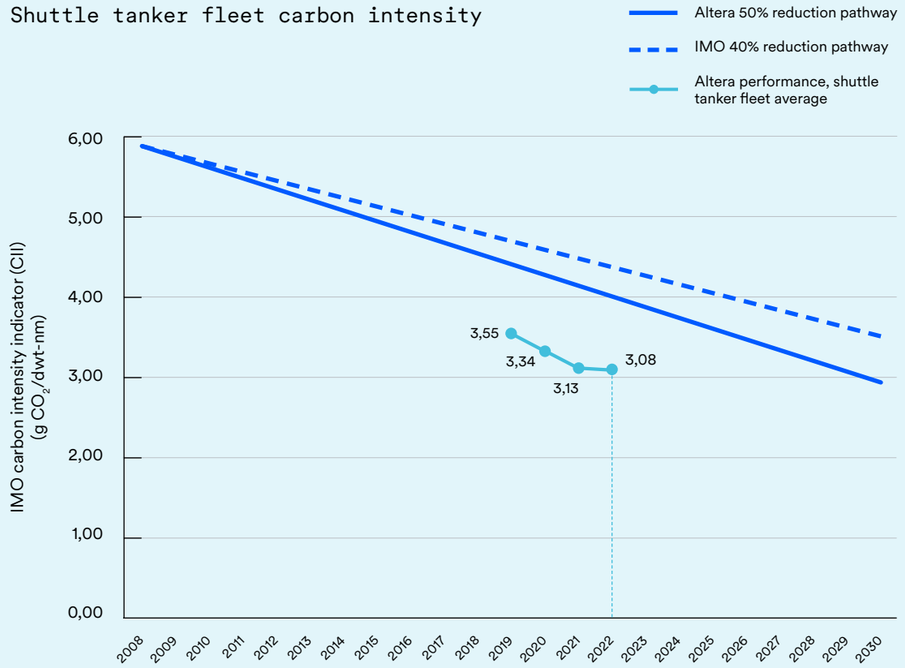
Shuttle tankers
The International Maritime Organization (IMO) has set a target to reduce the carbon intensity of international shipping by 40% by 2030, compared to a calculated 2008 baseline. We have set a more ambitious target – our goal is to reduce the average carbon intensity of our shuttle tanker fleet by 50% by 2030.

We measure the carbon intensity of our shuttle tankers according to the IMO's carbon intensity indicator (CII) of grams CO_2 per deadweight-nautical mile (g CO_2/dwt-nm), which measures a vessel's carbon emissions per capacity-distance. A lower CII value indicates a more efficient emissions performance. The IMO adopted a new methodology for calculating CII in 2022, including a shuttle tanker correction factor that allows shuttle tankers to be appropriately compared to conventional tanker vessels, on which the IMO's baselines and rating thresholds are based.

Our 2008 baseline, calculated according to the recently updated IMO methodology, is 5.90 g CO_2/dwt-nm. We have set 50% reduction pathway from this point.

In 2022, the average CII for our shuttle tanker fleet was 3.08 g CO_2/dwt-nm, a 1.6% improvement from an average CII of 3.13 in 2021 and in line with our 50% reduction pathway. Since 2019, we have reported third-party verified voyage data to the IMO, including distance sailed and fuel consumed in accordance with the IMO Data Collection System (DCS) regulations. We use this data to compare our verified CII performance to the reduction pathway to see if we are on track to meet our reduction target.

Shuttle tanker fleet carbon intensity



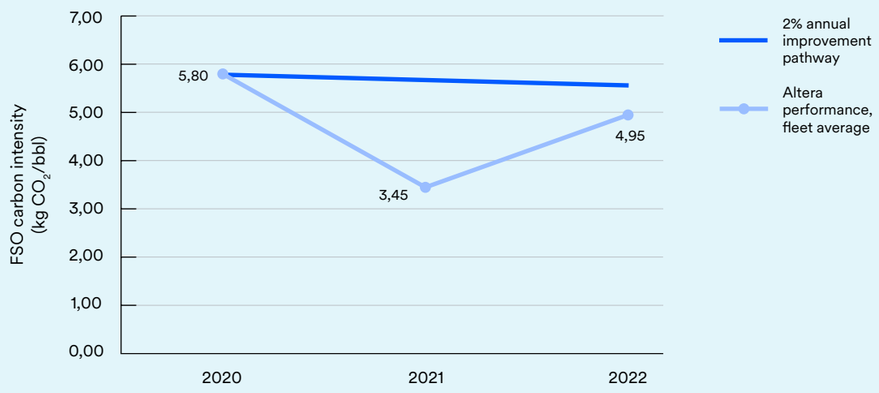
FSOs
We measure the carbon intensity of our FSOs by tracking carbon dioxide emissions from these vessels per barrel of oil stored on the vessel for offloading (kg CO_2/bbl). This is a new carbon intensity metric, one we established in early 2023 based on modelling conducted in 2022, and therefore we have not previously reported on it. Historical data disclosed in this report for assets which were recycled in 2020 have been estimated based on their respective average daily fuel consumption and average barrels of oil stored.

We have set a target to reduce the fleet average carbon intensity of our operating FSOs 2% annually from our baseline 2020 performance. In 2022, the average carbon intensity of our FSO fleet was 4.95 kg CO_2/bbl. This is a substantial increase compared to the fleet average carbon intensity calculated for 2021. The reason is that while Falcon Spirit stopped storage operations in July 2022, it continued decommissioning work, during which the vessel generated carbon emissions from the burning of fuel to power onboard turbines, but stored no oil.

Methane slip
When vessels run on LNG, as do our E-Shuttle tankers, a certain portion of the methane from the LNG does not fully combust. This leads to small amounts of fugitive methane emissions. Even though the volume of escaped methane is small, the CO_2 equivalent global warming potential over a 100-year perspective is 25 times that of CO_2.

Relying on an estimate of 4 grams of methane emitted per kilowatt-hour of energy produced by the engines onboard our shuttle tankers, we recorded 605 tonnes of escaped methane from our shuttle tanker fleet in 2021 and 206 tonnes in 2022. The decrease is the result of our clients directing the dual fuel E-Shuttles to use more MGO instead of LNG in 2022 as compared to 2021 due to historically high LNG prices during the year.

FSO fleet average carbon intensity



Race to Reduce

Living up to Altera's strong sustainability vision requires a commitment to embed sustainability in our daily activities.

We launched the 'Race to Reduce' campaign in December 2021, challenging our shuttle tanker and FSO fleets to reduce the carbon intensity of their operations. The campaign takes the form of a competition, where each vessel competes against themselves to achieve the highest degree of reduction compared to its own emission baseline.

At the end of each year, the shuttle tanker and FSO with the highest percentage reduction compared to its own historical baseline is declared the winner.

Our commitment to embed sustainability in our activities is a collective effort within the organisation. It is about discovery, learning, and actively searching for ways to successfully continue our journey.

The winner of the 2022 Race to Reduce competition was the shuttle tanker Scott Spirit and the FSO Randgrid.

Altera E-Shuttles and Green Bond

Altera's E-shuttle tankers Aurora Spirit, Rainbow Spirit, Tide Spirit, and Current Spirit are some of the most advanced and energy efficient shuttle tankers on the market. Anticipating a need for low- to zero-emission shuttle tanker capacity, they boast a unique future-proof design that can use liquid natural gas (LNG), recovered volatile organic compound (VOC) emissions, and even potential zero-emissions fuels, such as bio-LNG and synthetic methane, as fuel. Since they use gas-electric propulsion, it is also possible to retrofit the vessels with future electric power sources, such as fuel cells. A Green Bond was raised to part-finance the E-Shuttles, and all proceeds from this bond have been used for this purpose. This bond received a light green rating from Cicero.

The E-Shuttles were designed to achieve emissions savings of 40% (including the reduction in CO_2 equivalents from VOC emissions reductions) compared to the last series of vessels built for trade in the North Sea – our Explorer class shuttle tankers Amundsen Spirit, Nansen Spirit, Scott Spirit, and Peary Spirit, delivered in 2010 and 2011.

To assess the climate-related performance, we compare IMO CII figures (with the IMO shuttle tanker correction factor applied) for our Explorer class vessels to those for the E-Shuttles. The data confirm that the E-shuttles are more efficient– the average CII for the E-Shuttles was 13% lower than that for the Explorer class in 2022.

That said, the comparative CII dropped noticeably, from 25% in 2021 to 13% in 2022. While the Explorer class vessels achieved a slight improvement in average CII in 2022, the average AER for the E-shuttles increased by about 11%. This largely stems from our clients' continued instructions to use marine gasoil (MGO) as a primary fuel instead of LNG in the latter part of 2022 due to unprecedented gas prices.

Further, while the first E-Shuttles were delivered in 2020, commissioning of many onboard systems was delayed due to the disruptive effects of the COVID-19 pandemic and technical equipment challenges. We expect the vessels to realise their full emissions reduction potential once the onboard VOC reduction plants are fully operational. The first full year during which all four E-Shuttles will operate with fully commissioned onboard systems is projected to be 2023.

As a final note, the CII methodology does not address the effects of methane slip. We do however expect to see a CII improvement compared to the Explorer class in the range of 25–30%. Expected emissions savings, including the GHG effect of VOC emissions, will be realised once all key on-board systems are fully operational.

Fleet average IMO CII of E-Shuttles compared to Explorer class (g CO_2/dwt-nm)

	2022	2021	2020
Explorer Class	3.13	3.26	3.31
E-Shuttles	2.72	2.46	2.22
Comparative E-Shuttle CII performance improvement	13%	25%	33%

E-Shuttle Green Bond

Issuer: Altera Shuttle Tankers L.L.C.
Status: Senior unsecured
Outstanding notional: $200 million
Maturity date: 18 October 2024
Coupon: 3m Libor + 650bps
Listing: Oslo Stock Exchange
Second opinion: Cicero – light-green shading

East Coast Canada fleet shows its generosity

Every year the East Coast Canada fleet holds Christmas fundraisers onboard to collect funds for local charities. Last year was no exception with an impressive CAD 12,000 raised for the Kids Eat Smart Foundation. The donations came from the Norse Spirit, Beothuk Spirit, Dorset Spirit, Altera and an anonymous donor.

Money raised will go towards aiding the nutrition of school-aged children. For 30 years, the Kids Eat Smart Foundation Newfoundland and Labrador has partnered with schools, communities, volunteers and sponsors to provide nutritious food programmes throughout the Canadian province. Its vision is that 'every school-age child in Newfoundland and Labrador attends school well-nourished and ready to learn'. Annually the foundation provides approximately 40,000 free school meals daily through its 275 Kids Eat Smart Clubs.

Pictured: one of three donations made by Altera Infrastructure.

Future Leadership Program

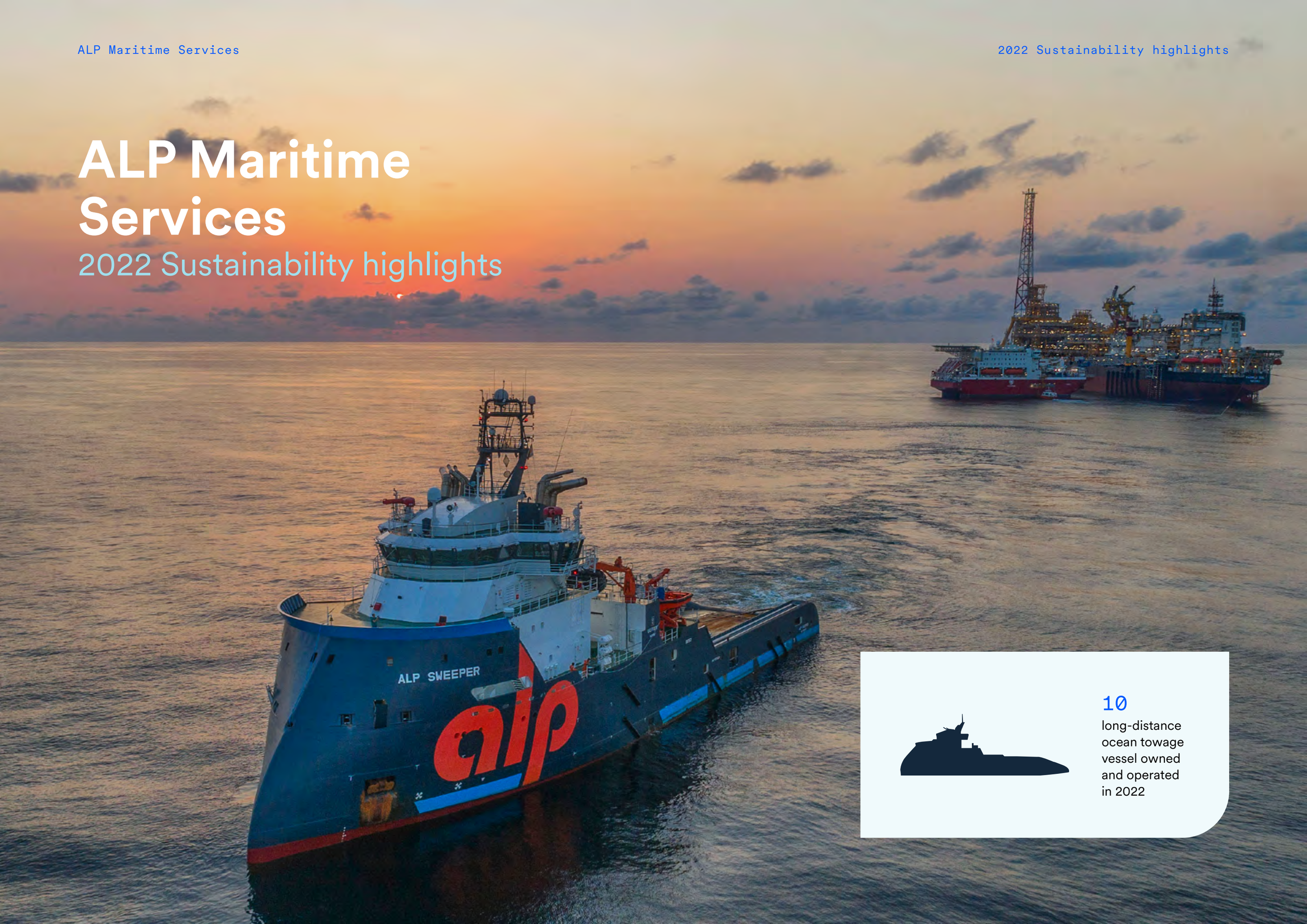
Deck Cadet Kimberly Callao from Altera Wind is the type of new recruit our company is looking for. She joined our company through the Future Leaders Program (FLP), which provides full scholarships for young Filipinos wanting to pursue a career in the maritime industry. Altera hopes participation in this programme will expose more women to our exciting industry, and close the gender gap within the maritime sector. At the end of the programme, candidates leave with a Bachelor of Science in Marine Engineering or Marine Transportation and good insight into vessel operation.

Kimberly has proven to be a valuable asset to our team, and was awarded the title of Altera Operational Leadership Champion for the first six-month period of 2022. All cadets undergo operational leadership training, where they are taught about and commit to Altera values, company safety and environmental policies, and receive hands-on experience at sea. Kimberly has received specific training as a deck officer, but has also worked closely with other crew members, to expand her knowledge base to other vessel operations.

Where Kimberly's career will take her, we do not know, but we wouldn't be surprised if she goes far and commands her own vessel in the years to come.

ALP Maritime Services

2022 Sustainability highlights



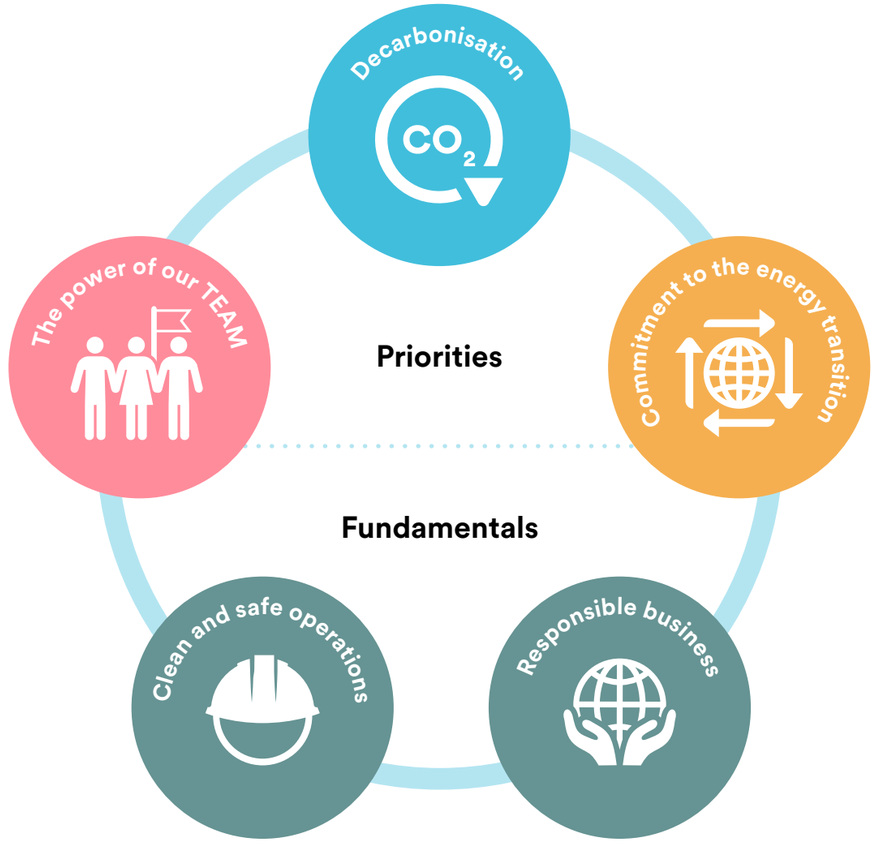
10
long-distance ocean towage vessel owned and operated in 2022

What we do

ALP Maritime Services (ALP) owns and operates a fleet of long-distance towage vessels. Our vessels are used to provide ocean towage, station-keeping, installation of large floating objects, such as off-shore production and storage units, including FPSO/FLNGs, and wind installations, as well as salvage and decommissioning operations.

Our vessels have a bollard pull of 206 to 312 tonnes and fuel capacity for at least 35 to 40 days of demanding operations. We focus on intercontinental towage requiring trans-ocean movements. Our vessels operate on voyage-charters and spot contracts. In 2022, we owned and operated ten towage vessels, two of which were sold within the year.

Altera sustainability framework



About this report
This sustainability highlights report is intended as a supplement to the Altera Infrastructure group 2022 Sustainability Report. It presents selected sustainability-related highlights from the activities of ALP Maritime Services, as part of the Altera Infrastructure L.P. group of companies. For full details of Altera's sustainability framework, reporting boundaries, performance, and complete 2022 nvironmental, social, and governance (ESG) disclosures, refer to the 2022 Altera group Sustainability Report at alterainfra.com.

Contact
Get in touch with us at
alpinfo@alpmaritime.com.

Health and safety

LTIs

0
total
LTI frequency[1]

TRIs

0
total
TRI frequency[2]

[1] LTI rate is calculated as the number of LTIs per 1,000,000 man-hours on a 24-hour workday basis.

[2] TRI rate is calculated as the number of TRIs per 1,000,000 man-hours on a 24-hour workday basis.

Environmental impact

Oil spills

0
total

Chemical spills

0
total

Waste

893
cubic metres (m^3)

Power of our TEAM

279
total workforce[1]

8%
onshore

92%
aboard

[1] Workforce includes employees and non-emplpoyee workers and is calculated on a headcount basis as of the end of the reporting period; does not include shared Altera group corporate resources.

Embedding sustainability

We are focused on reducing the environmental and climate impact of our activities. A dedicated Sustainability Team consisting of members from the technical, operational, and commercial functions helps to embed sustainability into all our decision-making. The establishment of one cross-departmental sustainability team with a common goal helps embed environmental considerations and targets into our daily operations.

This has already resulted in several initiatives. For example, by carefully mapping and tracking emissions and power-usage data from our fleet, we are identifying opportunities to reduce fuel consumption and optimise vessel operation, both of which help reduce the emissions intensity of our activities. We set and follow precise targets for cutting fuel used by engines and generators. We are also investigating using heat-exchange technology to harness residual heat from our engines to create electricity, which will reduce the load on our engines resulting in lower fuel consumption.

Optimising operations to manage our climate impact

Nearly all of our Scope 1 emissions result from the burning of fuel to power onboard engines. Therefore, the climate impact of our fleet is directly tied to the type of activity performed by our vessels and the amount of power and fuel they require.

Our core activity is long-distance ocean towage, whereby our vessels serve as external engines for objects that have no or inefficient means of self-propulsion. In addition, our fleet is involved in salvage, offshore installation support, and decommissioning operations. Individual projects vary in power intensity and may entail periods of high intensity interspersed with periods of low intensity or standby. As the distribution and nature of our activities may vary significantly from year to year, we also expect the consumption and power requirements of the fleet to vary annually.

Our vessels rely on conventional maritime fuel – marine gasoil – to power onboard turbines. At present, there is no viable low-carbon fuel alternative that can produce the amount of power necessary for our core towage activities and that is readily available around the world, wherever our vessels may trade. In addition, technology to capture emitted carbon from our vessels remains prohibitively expensive.

Worldwide operations

For this reason, we rely on operational tools to optimise our vessels' performance, thereby reducing conventional fuel consumption and emissions. Actions to reduce fuel consumption and lower emissions are driven from the perspective of different business segments – operations, fleet, and sales. We carefully plan sailing routes and perform regular engine and hull maintenance. We also adjust our engines and propulsion settings to the size and weight of the object being towed, the transport distance, and other operational requirements. This ensures that we deploy our vessels in the most efficient manner for each project. We also work with our clients to optimise operations so as to reduce emissions during projects.

Our decarbonisation toolbox

Understanding our carbon intensity

By better understanding the climate impact of our vessels relative to the type of operation in which they are engaged, we can identify new solutions to reduce emissions. In 2022, we started a two-phase program to track the emissions intensity of our operations.

In Phase 1, we adopted a new general carbon intensity metric tracking carbon emissions generated by our onboard engines per installed power capacity and hours of operation (denoted as g CO_2/kWh). The metric is presently in use as an offshore service vessel (OSV) industry-wide metric, enabling our stakeholders to compare ALP's climate footprint with that of other OSV operators. It does not, however, account for the variability in the type of operations we conduct. Therefore, we have not set an emissions intensity target for this metric and instead commit to tracking present performance against past performance in our core market going forward. In 2022, our fleet-average carbon intensity was 89.68 g CO_2/kWh.

In Phase 2, we are investigating an additional emissions intensity metric tailored to our niche operations. We are analysing daily data for all vessel operations since 2020 to better understand the efficiency gains of our vessels under specific conditions. This work is planned for 2023.

In the meantime, ALP remains fully committed to support industry initiatives by actively participating in joint industry partnerships and industry-driven case-studies on new technologies within the energy transition.

2022 fleet average carbon intensity

89.68

g CO_2/kWh

Disclosures table

Disclosures table

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Organisational and reporting details								
CEO statement	Refer to the CEO letter section of the report body for a statement from management on sustainability strategy.							GRI 2-22
Organisational details	Refer to the About Altera section of the report for details about Altera Infrastructure L.P. and its corporate structure.							GRI 2-1 GRI 11.20.6
Entities included in the organisation's sustainability reporting	This sustainability report includes disclosures for Altera Infrastructure L.P. and its subsidiaries (collectively, Altera). Unless otherwise indicated, disclosures are made as for the Altera group. Altera produces audited consolidated financial statements, but as of fiscal year 2022 these are not filed in the public record.							GRI 2-2
Reporting period, frequency, and contact point	Altera reports on sustainability annually, and the reporting period for both sustainability and financial reporting runs from 01 January to 31 December. This sustainability report was published in March 2023. Questions about this report or the reported information should be directed to the Altera Corporate Sustainability function at sustainability@alterainfra.com.							GRI 2-3
Restatements of information	Refer to the Restatements appendix for information about any relevant restatements of information or disclosures.							GRI 2-4
Activities, value chain and other business relationships	Refer to the About Altera section of the report for details about Altera's business activities and value chain.							GRI 2-6
Fleet	Refer to the Fleet appendix for a complete overview of vessels owned and/or operated by Altera, as well as vessels operated through Altera's joint ventures during the reporting period.							
Processes to remediate negative impacts	Our sustainability framework establishes our priority focus areas, which reflect the topics material to Altera and our stakeholders. We address our impact on these topics by setting targets, pursuing initiatives to meet those targets, and tracking and reporting on performance. Refer to the Sustainability at Altera section of the report for details about our sustainability framework.							GRI 2-25
Membership associations	Refer to the Sustainability at Altera section of the report for a list of memberships and partnerships active in 2022.							GRI 2-28
Approach to stakeholder engagement	Refer to the Sustainability at Altera section of the report for a discussion of our approach to stakeholder engagement.							GRI 2-29

Disclosures table

bbl: barrel
bbl o.e: barrel of oil equivalent
dwt: deadweight
nm: nautical mile
nr: not reported, data not collected

Economic and operational data

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Financial results	Altera produces audited consolidated financial statements, but as of fiscal year 2022 these are not filed in the public record because we are a private company.							GRI 201-1
Operating results and activity metrics	**FPSO activity** We measure the operational activity of our FPSOs as the number of barrels of oil equivalent produced by the vessels (bbl o.e). The number of barrels produced by an FPSO will vary over the operating lifetime of the vessel according to the production profile of the reservoir. Production is generally low at start-up and at the tail end, as the reservoir approaches decommissioning. Refer to the About Altera section of the report for details about the activities of our FPSOs. Production from Altera-operated FPSOs dropped in 2022 as compared to 2021, as three FPSOs ceased production and came off contract during the year.	Oil and gas production, Altera-operated FPSOs in continuous production during 2022	bbl o.e.	3,358,252	9,063,009	nr	Production from Altera-operated FPSOs in continuous production throughout 2022.	GRI 201-1
		Oil and gas production, Altera-operated FPSOs	bbl o.e	4,396,156	21,205,691	21,266,612	Production from Altera-operated FPSOs.	
		Oil and gas production, joint venture-operated FPSOs (equity share)	bbl o.e	9,743,816	6,344,985	7,078,865	Production from joint-venture operated FPSOs on an equity share basis.	
	Shuttle tankers We track the operational activity of Altera-operated shuttle tankers according to a number of metrics, including distance sailed, capacity (deadweight tonnage), and number of port calls. Refer to the Fleet appendix for details of our fleet of shuttle tankers. Some disclosures are new for 2022 and therefore no historical data is presented. While no deficiencies or detentions were issued for 2022, four port state control inspections were carried out in the reporting year.	Distance travelled	nm	611,124	nr	nr	Aggregate distance travelled by shuttle tankers operated by Altera within the reporting period.	SASB TR-MT-000.B
		Operating days	number	7,106	nr	nr	Aggregate operating days for shuttle tankers operated by Altera within the reporting period.	SASB TR-MT-000.C
		Deadweight tonnage	dwt	2,556,228	nr	nr	Aggregate deadweight tonnage for shuttle tankers operated by Altera within the reporting period.	SASB TR-MT-000.D
		Operated vessels	number	22	nr	nr	Includes shuttle tankers operated by Altera for any portion of 2022; excludes Altera-owned vessels solely operated by a third party within 2022.	SASB TR-MT-000.E
		Port calls	number	345	nr	nr	Aggregate port calls by shuttle tankers operated by Altera within the reporting period.	SASB TR-MT-000.F
		Port state control deficiencies and detentions	number	0	nr	nr	Aggregate port state control deficiencies and detentions issued to shuttle tankers operated by Altera within the reporting period.	SASB TR-MT-540a.3
	FSO activity We measure the operational activity of our Altera-operated FSOs as the number of barrels of oil stored on the FSO for offloading (bbl).	Total oil stored	bbl	6,311,610	8,888,069	13,372,642	Historical annual storage volume figures for FSOs no longer operational as of the date of publication of this report are estimated based on historical average daily production as per information from the respective oil company to which the FSOs were chartered.	GRI 201-1

Disclosures table

t CH_4 released: total methane released
t CO_2e: tonnes (metric tons) of carbon dioxide equivalent
- : zero

Environmental disclosures

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Total emissions	Altera currently reports on Scope 1 and a portion of Scope 2 and Scope 3 greenhouse gas (GHG) emissions. See the sections below for explanation of the different emission scopes. Unless otherwise specified, references to "emissions" are to GHG emissions. Except as stated herein, we report according to the Greenhouse Gas (GHG) Protocol, based on an operational control basis. For FPSOs and production assets operated by our joint venture, Altera & Ocyan, we report only Scope 1 emissions based on our 50% equity share. Refer to the Decarbonisation and individual business unit sections of the report for a discussion of emissions performance and Altera's strategy to manage emissions.	Total emissions	t CO_2e	1,360,567	1,629,696	1,901,804	Sum total of Scope 1, Scope 2, and Scope 3 (as reported) for the Altera group. Includes Scope 1 from vessels operated by joint ventures on an equity share basis.	GRI 305-1 GRI 305-2 GRI 305-3
Scope 1 emissions	Scope 1 emissions are direct emissions that occur from sources controlled or owned by an organisation. For Altera, the main source of Scope 1 emissions is the burning of fuel to power turbines onboard our vessels, and to a lesser extent flaring and fugitive emissions. Except as stated herein, we report according to the GHG Protocol, based on an operational control basis. We include the following gases in our calculation of Scope 1 emissions: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and hydrofluoro-carbons (HFCs). Other greenhouse gases are not included, primarily because they are not materially apparent in the current scope of reporting. For standard fuels, we use emissions factors and global warming potential (GWP) rates from the UK Department for Environmental, Food & Rural Affairs (DEFRA) and International Maritime Organisation (IMO) (for fuel), from the International Energy Agency (IEA) and local utilities (for electricity), and from the Intergovernmental Panel on Climate Change (IPCC) (for CO_2 equivalent (CO_2e) conversions). For fuel gas drawn directly from the offshore reservoir by our FPSOs and production assets during operations, we rely on emissions factors calculated and provided by the reservoir operator. We reported no Scope 1 emissions from our UMS in 2022 because the vessel was managed by a third party, and therefore outside our operational control boundary, for the duration of the reporting period. Refer to the Decarbonisation and individual business unit sections of the report for a discussion of emissions performance and Altera's strategy to manage Scope 1 emissions.	Total Scope 1 emissions	t CO_2e	1,077,627	1,246,743	1,619,421	Includes Scope 1 emissions from joint venture-operated vessels on an equity basis.	GRI 305-1 SASB TR-MT-110a.a
		Scope 1 emissions by fleet						
		FPSOs in continuous production, Altera-operated	t CO_2e	73,637	252,878	nr	Scope 1 emissions from Altera-operated FPSOs in continuous production only. 2022 disclosure uses 2021 data from Petrojarl I for direct emissions of CH4, NMVOCs, NOx, and SOx as data for 2022 was not available.	
		FPSOs, Altera-operated	t CO_2e	166,761	331,267	738,017	Scope 1 emissions from Altera-operated FPSOs only. 2022 disclosure uses 2021 data from FPSO Petrojarl 1 for direct emissions of CH_4, NMVOCs, NOx, and SOx as data for 2022 was not available.	
		FPSOs, joint venture-operated (equity share)	t CO_2e	153,950	128,805	141,890	Scope 1 emissions from joint venture-operated FPSOs on an equity share basis.	
		Shuttle tankers	t CO_2e	582,654	559,106	575,759		
		FSOs	t CO_2e	19,304	24,061	26,838	Includes VOC emissions from cargo vapours for Randgrid FSO only; the other FSOs in our fleet do not have the necessary equipment to track or analyse VOC emissions.	
		UMS	t CO_2e	-	230	-		
		Towage vessels	t CO_2e	154,957	203,551	136,917		
		Scope 1 emissions by generation type						
		Stationary combustion	percentage	80.3%	88.4%	80.3%	Includes fuel combustion and waste-to-energy on ships.	
		Process	percentage	15.0%	4.6%	14.3%	Includes direct and indirect flaring emissions.	
		Fugitive	percentage	4.6%	7.0%	5.3%	Includes direct emissions of CO_2, CH_4, NMVOC.	
		Direct CH_4 emissions	tonnes	2,018	2,347	2,068	Includes CH_4 emitted from reservoirs but not the fractional CH_4 emissions associated with burning fuel.	

Disclosures table

nr: not report, data not collected
t CO_2e: tonnes (metric tons) of carbon dioxide equivalent
- : zero

Environmental disclosures

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Scope 2 emissions	Scope 2 emissions are indirect emissions associated with the purchase of electricity, steam, heat, or cooling. Less than 1% of Altera's total emissions are Scope 2 emissions. The Scope 2 emissions we do report result from the generation of purchased electricity and district heating for our offices and docked vessels. Altera converts purchased electricity to t CO_2e using the IEA 2022 Emission Factor database. Except as stated herein, we report according to the GHG Protocol, based on an operational control basis. We include all greenhouse gases considered in the IEA database, with values reported in CO_2e. Due to the global scope of operations and the significantly (<0.1%) low levels of Scope 2 emissions as compared to Scope 1 emissions, it was determined reporting from a location-based perspective was sufficient in reporting Altera's Scope 2 emissions. Altera will work to collect market-based data (e.g., guarantees of origin, renewable energy certificates) for future reporting. Refer to the Decarbonisation section of the report for a discussion of emissions performance and Altera's strategy to manage emissions.	Total Scope 2 emissions (location-based)	t CO_2e	525	808	208	Only location-based emissions are reported. With the small relative scale of Scope 2 emissions compared to total emissions, this appears to be acceptable, though Altera will work to report market-based emissions as electricity supplier data improves.	GRI 305-2
		Scope 2 emissions by source						
		Offices	t CO_2e	97	137	4	Does not include offices in Philippines and Singapore, as data for these locations was not available.	
		Warehouses	t CO_2e	-	2	3	Includes only warehouses directly controlled by Altera, and excludes warehouses controlled by third party service providers.	
		Vessels at dock/repair	t CO_2e	427	669	202	Emissions resulting from electricity purchased to power vessels in dock or in lay-up.	
		Scope 2 emissions from vessels at dock/repair						
		FPSOs	t CO_2e	409	372	202		
		Shuttle tankers	t CO_2e	-	179	nr		
		FSOs	t CO_2e	-	-	nr		
		UMS	t CO_2e	-	98	nr		
		Towage vessels	t CO_2e	18	19	nr		

Disclosures table

nr: not report, data not collected
t CO_2e: tonnes (metric tons) of carbon dioxide equivalent

Environmental disclosures

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Scope 3 emissions	Scope 3 emissions are other indirect emissions resulting from value chain activities. Following the GHG Protocol Corporate Standard, Scope 3 reporting is still optional, however, following best practice, Altera is working to improve Scope 3 disclosures. We currently report only a portion of Scope 3 emissions resulting from other activities connected to our operations, such as logistics services and travel. The categories reported here are those which we could disclose with at least medium certainty in terms of data quality. Any uncertainties are noted. We are working to build a more complete inventory of Scope 3 emissions and, accordingly, our reporting for 2022 and 2021 includes certain Scope 3 emissions categories for which we do not have and therefore do not report data. In 2022, the Scope 3 emissions we do report accounted for 23% of our total. Calculations include the following gases: CO_2, CH_4, N_2O, and HFCs. We use emissions factors and global warming potential (GWP) rates from DEFRA (transportation, waste, fuel) and the IMO (for fuel) , from IEA and local utilities (for electricity), and from IPCC (for CO_2e conversions). From 2022, we disclose Scope 3 emissions according to the upstream and downstream value chain categories defined by the GHG Protocol. Historic Scope 3 emissions have been recalculated and restated according to these categories. Refer to the Decarbonisation section of the report for a discussion of emissions performance and Altera's strategy to manage emissions.	Total Scope 3 emissions	t CO_2e	282,416	382,145	282,178		GRI 305-3
		Scope 3 emissions according to GHG Protocol categories						
		1. Purchased goods and services	t CO_2e	nr	nr	nr		
		2. Capital goods	t CO_2e	nr	nr	nr		
		3. Fuel and energy-related activities (not included in Scope 1 or Scope 2)	t CO_2e	169,553	224,196	197,166	Emissions resulting from the production of fuel used by Altera.	
		4. Upstream transportation and distribution	t CO_2e	319	1 235	nr	Emissions resulting from air, road, and sea transport of goods and equipment for Altera.	
		5. Waste generated in operations	t CO_2e	1,194	596	172	Emissions resulting from the disposal of all forms of waste from Altera's activities.	
		6. Business travel	t CO_2e	17,600	24,932	8,577	Emissions resulting from airplane and helicopter flights, km remuneration, hotel stays for Altera's workforce.	
		7. Employee commuting	t CO_2e	nr	nr	nr		
		8. Upstream leased assets	t CO_2e	nr	nr	nr		
		9. Downstream transportation and distribution	t CO_2e	nr	nr	nr		
		10. Processing of sold products	t CO_2e	nr	nr	nr		
		11. Use of sold products	t CO_2e	nr	nr	nr		
		12. End-of-life treatment of sold products	t CO_2e	nr	nr	nr		
		13. Downstream leased assets	t CO_2e	93,750	131,186	76,263	Emissions resulting from the operation of Altera-owned assets leased to a third party for operation.	
		14. Franchises	t CO_2e	nr	nr	nr		
		15. Investments	t CO_2e	nr	nr	nr		

Disclosures table

g CO_2/dwt-nm: grams of carbon dioxide per deadweight tonnage per nautical mile
g CO_2/tm: grams of carbon dioxide per tonne-mile
kg CO_2e/bbl: kilograms of carbon dioxide equivalent per barrel
t CO_2e/mill USD: tonnes (metric tonnes) of carbon dioxide equivalent per million USD

Environmental disclosures

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Emissions intensity	**Altera group** We track emissions intensity for our group-wide activities by dividing total emissions (Scope 1, 2, and 3) by consolidated annual turnover (t CO_2e/mill USD). Refer to the Decarbonisation section of the report for details about Altera's emission intensity performance.	Emissions by revenue	t CO_2e/ mill USD	1,090	1,242	1,440	Calculated on the basis of total emissions (Scope 1, 2, and 3) divided by consolidated group revenue for the reporting period. Includes Scope 1 emissions from joint-venture operated vessels and revenue from joint ventures on an equity share basis.	GRI 302-5 GRI 305-4
	FPSOs We measure the emissions intensity of our FPSOs by tracking Scope 1 and Scope 2 emissions resulting from the direct operation of the vessel per barrels of oil equivalent produced (kg CO_2e/bbl o.e). We have set a target to reduce the fleet average emissions intensity of our FPSOs to 12 kg CO_2e/bbl o.e. by 2030. (Parameters: Scope 1 and Scope 2 emissions, operating FPSOs managed by Altera only.) To calculate the weighted average emissions intensity of our FPSO fleet within the reporting year, we divide the total CO_2e emissions for the fleet within the reporting year by the total barrels of production for the fleet within the reporting year. Although we have reported emissions intensity performance for our FPSO fleet in the past, we have changed the parameters of this metric and our calculation methodology as from 2022. Historic emissions intensity has been recalculated and restated her according to our current methodology. Refer to the Decarbonisation and Altera Production sections of the report for further details of our emissions intensity target and strategies for managing emissions from our FPSO fleet.	Emissions per barrel produced, Altera-operated FPSOs in continuous production	kg CO_2e/ bbl o.e.	22	28	nr	Calculated on the basis of Scope 1 and Scope 2 emissions from FPSOs in continuous production for the duration of the reporting period and barrels of oil equivalent produced by such FPSOs. Excludes FPSOs operated through joint ventures, in layup, and FPSOs that were in decommissioning during 2022.	
		Emissions per barrel produced, Altera-operated fleet average	kg CO_2e/ bbl o.e.	38	32	nr	Calculated on the basis of Scope 1 and Scope 2 emissions from operating FPSOs operated by Altera and barrels of oil equivalent produced by such FPSOs. Excludes joint venture-operated vessels; excludes vessels in lay-up; excludes Scope 2 emissions resulting from onshore office activities.	
	Shuttle tankers We measure the carbon intensity of our shuttle tankers by tracking CO_2 emissions resulting from vessel operations per capacity-distance (g CO_2/dwt-nm), in accordance with IMO guidance (IMO carbon intensity indicator (CII)). To adjust for the unique performance of shuttle tankers as compared to conventional tankers, we apply the IMO shuttle tanker correction factor to our CII calculations. We have set a target to reduce the fleet average CII of our shuttle tankers by 50% by 2030 compared to a 2008 baseline calculated according to IMO methodology. (Parameters: Scope 1 CO_2 emissions, vessels operated by Altera (regardless of ownership).) To calculate the weighted average CII of the shuttle tanker fleet, we divide the total CO_2 emissions for the fleet within the reporting year by the product of the deadweight of the fleet multiplied by the distance travelled in nautical miles for fleet within the reporting year." Refer to the Decarbonisation and Altera Shuttle and Storage sections of the report for further details about our emissions intensity target and our strategy for managing emissions from our shuttle tanker fleet.	Carbon intensity indicator (CII), fleet average	g CO_2/ dwt-nm	3.08	3.13	3.34	Calculated on the basis of Scope 1 CO_2 emissions from shuttle tankers operated by Altera only; excludes Altera-owned vessels managed by a third party. IMO shuttle tanker correction factor applied.	
		Average energy efficiency operational indicator (EEOI)	g CO_2/tm	19.30	18.30	20.7	Fleet average	

Disclosures table

kg CO_2e/bbl: kilograms of carbon dioxide equivalent per barrel
g CO_2/kWh: grams of carbon dioxide per kilowatt hour
g CO^2/t-nm: grams of carbon dioxide equivalent per tonne-nautical mile
nr: not reported, data not collected

Environmental disclosures

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Emissions intensity continued	**FSOs** We measure the carbon intensity of our FSOs by tracking CO_2 emissions from vessel operations per barrel of oil stored on the vessel (kg CO_2/bbl). We have set a target to reduce the fleet average carbon intensity of our operated FSOs by 2% annually as compared to our baseline 2020 performance. (Parameters: Scope 1 CO_2 emissions, vessels operated by Altera only.) To calculate the unweighted average carbon intensity of the FSO fleet, we calculate the carbon intensity of each FSO vessel for the reporting year (by dividing Scope 1 carbon emissions by total barrels stored for each vessel) and then calculate the average of these values for all vessels in the fleet. We use an unweighted average to ensure that the annual performance of each vessel is apparent in the fleet average, even given the small number of vessels in the fleet. Refer to the Decarbonisation and Altera Shuttle and Storage sections of the report for further details about our emissions intensity target and our strategy for managing emissions from our FSO fleet.	CO_2 emissions per barrel of oil stored, fleet average	kg CO_2/bbl	4.95	3.45	5.80	Calculation on the basis of Scope 1 emissions from FSOs operated by Altera only; fleet average. Historical annual storage volume figures for FSOs no longer operational as of the date of publication of this report are estimated based on historical average daily production as per information from the respective oil company to which the FSOs were chartered.	
	Towage vessels We measure the carbon intensity of our ALP Maritime Services towage vessels by tracking CO_2 emissions from vessel operations per installed power capacity and hours of operations (g CO_2/kWh). (Parameters: Scope 1 emissions; vessels operated by ALP Maritime Services only.) To calculate the average carbon intensity of our towage fleet within the reporting year, we divide total carbon emissions for the fleet within the reporting year by the product of total installed power capacity for the fleet multipled by the total number of hours the fleet was operational during the reporting year. See the Decarbonisation and ALP Maritime Services sections of the report for further details about our strategy for managing emissions from our towage fleet.	Carbon emissions per installed power capacity and hours of operation, fleet average	g CO_2/kWh	89.68	111.48	79.53	Calculation on the basis od Scope 1 emissions from towage vessels operated by ALP Maritime Services only; fleet average.	
Average EEDI/EEXI	Energy Efficiency eXisting ship Index (EEXI) tracks CO_2 emissions per cargo tonne and mile. It determines the standardised CO_2 emissions related to installed engine power, transport capacity, and ship speed. EEXI is calculated once in a lifetime process using the vessel's design parameters as a base. EEXI is substantively identical to the earlier adopted Energy Efficient Design Index (EEDI), which applies to newbuild vessels only. It is expected that calculation methodologies for EEXI and EEDI will be consolidated in the future.	EEXI, shuttle tanker fleet average	g CO_2/t-nm	3.10	nr	nr	Relevant for shuttle tanker fleet only.	SASB TR-MT-110a.4

Disclosures table

Sm³: standard cubic meter
-: zero

Environmental disclosures

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Other emissions to air	We track emissions of CH_4, non-methane volatile organic compounds (NMVOC), nitrogen oxide (NOx), and sulphur oxide (SOx) because these gases contribute to poor air quality. Of these, CH_4 and NMVOCs are also greenhouse gases, and we account for the GWP of these gases in calculating our total emissions. For clarity, we disclose CH_4 and NMVOC emissions from vessels operated through joint ventures (on an equity basis) separate from such emissions from Altera-operated vessels, but the GWP of both are included in our Scope 1 and total emissions.	CH_4, Altera-operated vessels	tonnes	1,941	2,280	1,999	CH_4 emitted from Altera-operated vessels.	GRI 305-7 SASB TR-MT-120a.1
		CH_4, joint venture-operated vessels (equity share)	tonnes	76	67	69	CH_4 emitted from vessels operated through joint ventures on an equity share basis.	
		NMVOC, Altera-operated vessels	tonnes	6,980	9,656	12,653	NMVOCs emitted from Altera-operated vessels. 2022 disclosure uses 2021 data from FPSO Petrojarl 1 for direct emissions of CH_4, NMVOCs, NOx, and SOx as data for 2022 was not available.	
		NMVOC, joint venture-operated vessels (equity share)	tonnes	8	-	70	NMVOCs emitted from vessels operated through joint ventures on an equity share basis.	
		NOx	tonnes	12,915	12,523	15,509	2022 disclosure uses 2021 data from FPSO Petrojarl 1 for direct emissions of CH_4, NMVOCs, NOx, and SOx as data for 2022 was not available.	
		SOx	tonnes	850	1,229	1,238	2022 disclosure uses 2021 data from FPSO Petrojarl 1 for direct emissions of CH_4, NMVOCs, NOx, and SOx as data for 2022 was not available.	
Management of Flaring	Flaring is the controlled burning of natural gas from an oil and gas installation and is used to safely dispose of gas where it is not possible to otherwise capture it. Altera is committed to the reduction of flare gas and each of our operating FPSOs follow a flaring philosophy focused on identifying possible technical and operational controls to reduce flaring. We track the volume of flare gas released as well as the emissions produced from flaring, which can vary depending on the composition of the flare gas at a specific installation, and which are included in our Scope 1 emissions disclosures. The volume of CH_4 released in connection with flaring is included in the CH_4 disclosure under Other emissions to air. For clarity, we disclose flare gas released by FPSOs operated through joint ventures (on an equity basis) separate from flare gas released by Altera-operated FPSOs. Refer to the Altera Production section of the report for further details about our flaring performance and efforts to reduce flaring.	Flare gas, Altera-operated FPSOs	Sm^3	9,036,768	26,946,157	19,594,484	Relevant for FPSOs only. Flare gas released from Altera-operated vessels.	GRI 11.1.1 SASB EM-SV-110a.2
		Flare gas, joint venture-operated FPSOs (equity share)	Sm^3	12,164,507	8,699,760	6,232,605	Relevant for FPSOs only. Flare gas released from joint venture-operated vessels on an equity share basis.	

Disclosures table

GJ: gigajoules
-: zero

Environmental disclosures

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Energy mix	**Fuel and energy consumption** We burn a variety of fuels to power our vessels' engines and onboard generators. We directly track the volume of fuel consumed on the vessels that we operate, in the units that are standard for the relevant industry. Our FPSOs burn fuel gas directly from the reservoir installation, and burning of fuel gas accounts for nearly all of our consolidated group fuel consumption. Fuel gas refers generally to gaseous fuels in an offshore reservoir. Energy use conversation rate is unique to each reservoir. Our shuttle tankers, FSOs, and towage vessels burn mostly marine gasoil (MGO) and intermediate fuel oil (IFO). Some of our shuttle tankers can also run on liquid natural gas (LNG). We track our overall energy consumption by converting the volume of each fuel type burned by vessels we operate to the energy use equivalent, in gigajoules (GJ), using conversation factors from DEFRA and SSB (Statistics Norway) Fuel consumption is directly related to our Scope 1 and total emissions. For clarity, and where relevant, we disclose fuel consumed by vessels operated through joint ventures (on an equity basis) separate from fuel consumed by Altera-operated vessels.	Total energy consumption	GJ	372,299,858	498,777,876	655,282,580	Calculated as energy use equivalent in gigajoules for all fuel consumed. Includes energy use equivalent of fuels consumed by joint venture-operated vessels on an equity share basis.	GRI 302-1 SASB TR-MT-110a.3
		Diesel, Altera-operated vessels	tonnes	17,677	25,617	51,206	Diesel consumed by Altera-operated vessels.	
		Energy equivalent	GJ	773,355	1,120,732	2,240,271		
		Diesel, joint-venture operated vessels (equity share)	tonnes	7,571	5,111	3,018	Diesel consumed by joint venture-operated vessels on an equity share basis.	
		Energy equivalent	GJ	331,231	223,599	132,044		
		Fuel gas, Altera-operated vessels	tonnes	4,088,123	7,777,913	10,306,870	Only relevant for FPSOs. Fuel gas consumed by Altera-operated vessels.	
		Energy equivalent	GJ	207,111,790	488,184,104	643,630,522		
		Fuel gas, joint venture-operated vessels (equity share)	tonnes	5,464,691	5,102,934	6,675,466	Only relevant for FPSOs. Fuel gas consumed by joint venture-operated vessels on an equity share basis.	
		Energy equivalent	GJ	154,939,865	294,782,900	390,630,378		
		Heavy fuel oil (HFO)	tonnes	-	38,593	5,019		
		Energy equivalent	GJ	-	1,565,718	203,620		
		Intermediate fuel oil (IFO)	tonnes	43,078	-	31,697		
		Energy equivalent	GJ	1,884,663	-	1,386,744		
		Liquid natural gas (LNG)	tonnes	9,907	26,513	9,722		
		Energy equivalent	GJ	241,731	646,917	237,217		
		Marine diesel oil (MDO)	tonnes	61	5,157	2,884		
		Energy equivalent	GJ	2,669	225,619	126,175		
		Marine gasoil (MGO)	tonnes	160,325	155,678	167,450		
		Energy equivalent	GJ	7,014,231	6,810,891	7,325,953		
		Petrol	tonnes	7.3	6.6	0.8		
		Energy equivalent	GJ	324	296	36		

Disclosures table

kWh: kilowatt hours
- : zero

Environmental disclosures

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Energy mix continued	**Electricity consumption** We consume electricity to power and heat our offices and to power our vessels when they are in dock or yard during lay-up. We collect data on this electricity usage from our landlords and yard providers.	Total electricity consumption	kWh	8,526,423	11,465,007	4,999,727	Calculation does not include electricity use from our offices in Trondheim, Norway, Manila, Philippines, or St. Johns, Canada, as data were not available for these locations.	GRI 302-1
		Total heating consumption	kWh	11,745	11,745	nr	Only includes data from offices in Norway.	
Spills to sea	A spill is an accidental release of a material that can be hazardous to human health, land, vegetation, waterbodies or groundwater. In accordance with our business unit management systems, we record all spills from vessels under Altera operation regardless of volume or nature, and regardless of whether applicable regulations require that the spill be reported to the relevant regulatory authorities. In 2022, we experienced only one oil spill to sea, when a spray in the blow loading system onboard one of our shuttle tankers resulted in a spill of about four litres of crude oil onboard, of which 0.5 litres spilled to sea. Given the small volume of the spill, no remediation was undertaken. As reflected in the historic data presented in this table, in 2022 we experienced one chemical spill to sea when a technical failure in the produced water system on the Sevan Hummingbird FPSO resulted in chemicals being discharged to sea as part of produced water instead of being separated. As the actual volume of chemicals discharged to sea was unknown, we disclosed the maximum potential volume of 4,500 litres. In 2020 we had a serious oil leak calculated to be 268,003 litres of diesel, which was the result of a minor crack in a tank onboard the Petrojarl Foinaven FPSO. An investigation concluded that the leak had been ongoing for some time. Improvements in systems and procedures were then implemented, both onboard this FPSO and on all FPSOs under Altera operation, to prevent this type of leak from happening again.	Chemical spills	number	-	1	1		GRI 306-3 SASB TR-MT-160a.3 SASB EM-SV-150a.2
		Aggregate volume	litres	-	4,500	1,241		
		Oil spills	number	1	5	3		
		Aggregate volume	litres	0,5	206	268,003		

Disclosures table

kg: kilograms
m³: cubic meters
nr: not reported, data not collected
ppm: parts per million
- : zero

Environmental disclosures

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Waste	We directly track the amount of waste from vessels under Altera operation. We do not disclose the consolidated group total volume of waste generated because we track this data in different units across our fleets and offices. Our FPSOs generate hazardous waste during production, and we handle all such hazardous waste was handled in accordance with our management system and applicable law. Our shuttle tankers, FSOs, UMS, and towage vessels hold Inventory of Hazardous Materials (IHM) certificates, which they follow to avoid bringing anything onboard that could later end up as hazardous waste, and therefore do not generate any hazardous waste. UMS operations in 2022 were managed by a third party, so no waste was generated within Altera's operational control boundary. Information about waste generated from our offices is collected from our office landlords. In most cases, data is calculated as a pro-rata share of total building waste, based on Altera's leased square footage. A calculation error led to overreporting of waste from our towage fleet in past years. We have recalculated and restated these historic disclosures.	Waste from FPSOs	tonnes	720	716	410		GRI 306-3
		Share recycled	percentage	29%	nr	nr		
		Share incinerated for energy	percentage	38%	nr	nr		
		Share hazardous	percentage	37%	31%	nr		
		Waste from shuttle tankers	m^3	2,267	2,634	nr		
		Waste from FSOs	m^3	111	168	nr		
		Waste from UMS	m^3	-	-	nr		
		Waste from towage vessels	m^3	893	815	nr		
		Waste from offices	kg	26,766	16,629	nr	Does not include waste generated from our Singapore office, as data were not available. Waste data from our offices in Trondheim, Norway, Manila, Philippines, and St.Johns, Canada were not available as of the date of publication and these waste disclosures are therefore estimated based on prior years' data.	
		Share recycled	percentage	73%	42%	nr		
Water discharge	Operation of our FPSOs results in produced water as a by-product of oil production, which is discharged to sea from the vessels. We closely monitor the proportion and amount of oil in the discharge of this produced water. Only our FPSO fleet discharges produced water to sea. None of Altera's fleets produce any water discharge to other water sources, such as groundwater or freshwater.	Volume of oil in produced water	tonnes	37.8	98.2	29.6	Only relevant for FPSOs.	GRI 303-4
		Average oil content of produced water	ppm	14.4	27.9	18.3	Only relevant for FPSOs.	
Ballast water management	We use tailored technology specific to our shuttle tankers and towage vessels to ensure compliance with the IMO Ballast Water Management Convention. Our FPSOs, FSOs, and UMS do not use ballast water treatment systems because they remain stationary while operating. None of our vessels utilise ballast water exchange systems.	Share of shuttle tanker fleet implementing ballast water treatment systems	percentage	90%	92%	nr		SASB TR-MT-160a.2
		Share of towage vessel fleet implementing ballast water treatment systems	percentage	100%	90%	90%		

Disclosures table

nr: not reported, data not collected
-: zero

Social disclosures

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Health and safety	Each of our business units maintains a management system certified for ISO 9001 (quality management), ISO 14001 (environmental management), and ISO 45001 (occupational health and safety). We focus on proactive reporting and closely track incidents for everyone onboard our vessels, whether part of Altera's workforce, the workforce of third party contractors, inspectors or visitors. We promote transparent reporting of incidents and encourage everyone to share their ideas, suggestions for improvements and to report incidents and hazards. The main types of work-related injury onboard our vessels are hand injuries or back pain. We calculate rates of lost time incidents (LTIs) and total recordable injuries (TRIs) for our FPSOs on a 12-hour workday basis, as is standard for the offshore industry. We calculate LTI and TRI rates for our other fleets on a 24-hour workday basis, as is standard for the maritime industry. Fleet specific LTI and TRI rates are disclosed separately according to these methodologies. To calculate the consolidated LTI and TRI rate for the Altera group, we use the 24-hour basis to ensure alignment within the company. Our Altera Shuttle and Storage business unit, which operates our shuttle tanker and FSO fleets, reports on health and safety incidents using the terminology "total recordable cases" (TRCs), instead of TRIs. The metrics are otherwise identical, but we use the terms interchangeably in this report. For group consolidated numbers, we refer to "TRIs", but note that this is inclusive of TRCs as well. In past years we have disclosed only consolidated LTI and TRI numbers. From 2022, we will report on a consolidated and fleet-specific basis. Fleet-specific historical disclosures are not reported. Our vessels each have dedicated medical professionals and/or crew trained to administer emergency medial treatment onboard. Each fleet maintains updated emergency procedures for medevac in the event of serious injuries, and if onshore medical examination is needed as a precaution. We include requirements for health and safety in the contracts we establish with yards and dry docks to manage health and safety risks in work environments we do not control but which are related to our business. We work closely with our contractors to ensure best health and safety industry practices are followed, we require regular reporting, and we audit to verify compliance. We provide additional health services to our workforce, including health insurance for all employees, occupational health support for onshore staff, free flu vaccination, access to a physiotherapist, and ergonomic support.	Fatalities	number	-	-	-	Fatality is a work-related injury or work-related illness that results in death.	GRI 403-1 GRI 403-2 GRI 403-3 GRI 403-5 GRI 403-6 GRI 403-7 GRI 403-9 SASB EM-SV-320a.1 SASB EM-SV-320a.2
		TRI	number	11	12	8	Consolidated group total. TRI includes medical treatment injuries and lost time injuries for Altera employees and non-employee workers as well as others on Altera-operated vessels. Does not include first aid cases.	
		FPSOs	number	5	nr	nr	TRIs on Altera-operated FPSOs.	
		Shuttle tankers	number	6	nr	nr	TRCs on Altera-operated shuttle tankers. TRC is calculated and has the same definition as TRI.	
		FSOs	number	-	nr	nr	TRCs on Altera-operated FSOs.	
		Towage vessels	number	-	nr	nr	TRIs on towage vessels operated by ALP Maritime Services.	
		TRI rate, consolidated	frequency	1.41	1.32	0.76	Consolidated group rate is calculated as the consolidated number of TRIs per 1,000,000 man-hours for employees and non-employee workers, on a 24-hour workday basis.	
		FPSOs	frequency	6.35	nr	nr	TRI frequency on Altera-operated FPSOs. Calculated as the number of TRIs per 1,000,000 man-hours for employees and non-employee workers on Altera-operated FPSOs, on a 12-hour workday basis, assuming 7% estimated overtime.	
		Shuttle tankers	frequency	1.35	nr	nr	TRC frequency on Altera-operated shuttle tankers. Calculated as the number of TRCs per 1,000,000 man-hours for employees and non-employee workers on Altera-operated shuttle tankers, on a 24-hour workday basis.	
		FSOs	frequency	-	nr	nr	TRC frequency on Altera-operated FSOs. Calculated as the number of TRCs per 1,000,000 man-hours for employees and non-employee workers on Altera-operated FSOs, on a 24-hour workday basis.	
		Towage vessels	frequency	-	nr	nr	TRI frequency on towage vessels operated by ALP Maritime Services. Calculated as the number of TRIs per 1,000,000 man-hours for employees and non-employee workers on towage vessels operated by ALP Maritime Services, on a 24-hour workday basis.	
		LTIs	number	4	4	3	Consolidated group total. LTI is a work-related injury or illness to an employee or non-employee worker, as a result of which a physician or licensed health care professional recommends days away from work.	
		FPSOs	number	3	nr	nr	LTIs on Altera-operated FPSOs.	
		Shuttle tankers	number	1	nr	nr	LTIs on Altera-operated shuttle tankers.	
		FSOs	number	-	nr	nr	LTIs on Altera-operated FSOs.	
		Towage vessels	number	-	nr	nr	LTIs on towage vessels operated by ALP Maritime Services.	

Disclosures table

nr: not reported, data not collected
- : zero

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Social disclosures								
Health and safety continued		LTI rate, consolidated	frequency	0.51	0.44	0.29	Consolidated group rate. Calculated as the consolidated number of LTIs per 1,000,000 man-hours for employees and non-employee workers, on a 24-hour workday basis.	
		FPSOs	frequency	3.81	nr	nr	LTI frequency on Altera-operated FPSOs. Calculated as the number of LTIs per 1,000,000 man-hours for employees and non-employee workers on Altera-operated FPSOs, on a 12-hour workday basis, assuming 7% estimated overtime.	
		Shuttle tankers	frequency	0.23	nr	nr	LTI frequency on Altera-operated shuttle tankers. Calculated as the number of LTIs per 1,000,000 man-hours for employees and non-employee workers on Altera-operated shuttle tankers, on a 24-hour workday basis.	
		FSOs	frequency	-	nr	nr	LTI frequency on Altera-operated FSOs. Calculated as the number of LTIs per 1,000,000 man-hours for employees and non-employee workers on Altera-operated FSOs, on a 24-hour workday basis.	
		Towage vessels	frequency	-	nr	nr	LTI frequency on towage vessels operated by ALP Maritime Services. Calculated as the number of LTIs per 1,000,000 man-hours for employees and non-employee workers on towage vessels operated by ALP Maritime Services, on a 24-hour workday basis.	
Workforce overview	Altera's own workforce comprises employee and non-employee workers. Onshore, Altera relies on non-employee consultants to support specific projects and areas, such as engineering and IT services. Although most of our workers offshore and aboard are employed by Altera, in some cases they are employed via a manning agent and assigned to our vessels. We have changed our methodology for reporting on the make-up of our total workforce. Due to this change, we do not present historical data for all disclosures categories.	Total workforce	number	2,298	2,443	2,663	Calculated on a headcount basis as of the end of the reporting period. Workforce includes employee workers and non-employee workers.	GRI 2-7 GRI 2-8
		Onshore	number	461	544	nr		
		Offshore and aboard	number	1,837	1,899	nr		
		Women	number	224	241	310		
		Men	number	2,074	2,202	2,353		
		Employees	number	2,010	nr	nr	Employees are those workers in an employment relationship with Altera according to applicable national law.	
		Non-employee workers	number	288	nr	nr	Non-employee workers are those who do not have an employment relationship with Altera, such as consultants.	

Disclosures table

nr: not reported, data not collected

Social disclosures

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Gender balance	Altera has set a target to realise at least a 35% gender balance in onshore senior management, which we are working to achieve through active talent development. Refer to the Power of our TEAM section of the report for further details about our gender balance target and actions in this area. Additional data collected in accordance with the Norwegian Equality and Anti-Discrimination Act for covered entities will be reported separately.	Women on the board of directors	percentage	20%	20%	20%	Calculated as a percentage based on headcount of total board members as of the end of the reporting period. In 2022, an eleventh director was appointed to the Altera board for a discrete period of time to ensure additional restructuring expertise during Altera's Chapter 11 process. This director's was appointed in March 2022 and her appointment lapsed on 6 January 2023. Given the intentionally temporary nature of the appointment, this director is excluded from the calculation of this disclosure.	GRI 405-1
		Women in executive leadership	percentage	22%	25%	nr	Calculated as a percentage based on headcount of executive leadership as of the end of the reporting period. Executive Leadership is defined as the Chief Executive Officer, Chief Financial Officer, General Counsel, heads of business units, and heads of corporate units.	
		Women in senior management onshore	percentage	17%	20%	20%	Calculated as a percentage based on headcount of executive leadership and all onshore management roles directly reporting to a member of exective leadership, as of the end of the reporting period.	
		Women in total workforce	percentage	10%	10%	12%	Calculated as a percentage based on headcount of total workforce as of the end of the reporting period.	
		Women in onshore workforce	percentage	37%	35%	38%	Calculated as a percentage based on headcount of total workforce onshore as of the end of the reporting period.	
		Women in workforce offshore and aboard	percentage	3%	3%	2%	Calculated as a percentage based on headcount of total workforce offshore and aboard as of the end of the reporting period.	

Disclosures table

nr: not reported, data not collected

Social disclosures

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Distribution of employees	We have changed our methodology for reporting on the distribution of our employees from past years. From 2022, information about employee region is based on location of employment, not nationality. Due to this change, we do not present historical data for 2021 and 2020 for all disclosure categories. These disclosures are limited to Altera employees; non-employee workers are not included in these calculations. In 2022, Altera's workforce included 288 non-employee workers. For a full breakdown of these employee categories by gender, region, and placement (onshore or offshore and aboard), see the Employee distribution matrices following the Disclosure tables. Notes to disclosures provided here also apply to the data presented in the Employee distribution matrices.	Permanent employees	number	1,919	2,068	2,296	Calculated on a headcount basis at the end of the reporting period. Includes permanent employees onshore and offshore and aboard. A permanent employee is an employee with a contract for an indeterminate period (i.e., an indefinite contract) for full-time or part-time work.	GRI 2-7 (b)
		Temporary employees	number	91	nr	nr	Calculated on a headcount basis at the end of the reporting period. Includes temporary employees onshore and offshore and aboard. A temporary employee is an employee with a contract for a limited period (i.e., fixed term contract) that ends when the specific time period expires, or when the specific task or event that has an attached time estimate is completed (e.g., the end of a project or return of replaced employees).	
		Full-time employees	number	2,006	nr	nr	Calculated on a headcount basis at the end of the reporting period. Includes full-time employees (both permanent and temporary) onshore and offshore and aboard. A full-time employee is defined as an employee whose working hours per week, month, or year are defined according to national law or practice regarding working time.	
		Part-time employees	number	4	nr	nr	Calculated on a headcount basis at the end of the reporting period. Includes part-time employees (both permanent and temporary) onshore and offshore and aboard. A part-time employee is an employee whose working hours per week, month, or year are less than the number of working hours for full-time employees.	

Disclosures table

nr: not reported, data not collected

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Social disclosures								
New employee hires	We track new permanent employee hires as a measure of the growth of our workforce and how attractive Altera is as a potential employer. This disclosure is new for 2022. As a result we do not present historical data for 2021 and 2020.	New employee hires	number	380	nr	nr	Calculated as the number of new permanent employee hires on a headcount basis during the reporting period, overall and for each subcategory presented.	GRI 401-1
		Onshore	number	55	nr	nr		
		Women	number	18	nr	nr		
		Men	number	38	nr	nr		
		Offshore and aboard	number	324	nr	nr		
		Women	number	17	nr	nr		
		Men	number	307	nr	nr		
		New hire rate, overall	percentage	18.8%	nr	nr	Calculated as the total number of permanent employee hires by headcount during the reporting period, divided by the average of the number of permanent employees by headcount at the beginning and end of the reporting period. Where presented for a subcategory of employees (e.g., onshore, women onshore), the new hire rate is calculated as the total number of new permanent employee hires in that subcategory during the reporting period, divided by the average of the number of permanent employees in that subcategory by headcount at the beginning and end of the reporting period.	
		Onshore	percentage	12.3%	nr	nr		
		Women	percentage	10.5%	nr	nr		
		Men	percentage	13.8%	nr	nr		
		Offshore and aboard	percentage	20.6%	nr	nr		
		Women	percentage	34.7%	nr	nr		
		Men	percentage	20.2%	nr	nr		
Voluntary turnover	We track voluntary resignations (voluntary turnover) as a measure of the engagement of our workforce. Altera has set a recurring annual target to keep voluntary turnover for the group overall below 7.5%. We are working to develop a package of measures to improve our retention rate including benchmarking of compensation, structured processes to identify and develop talent, concrete development plans and improved monitoring of progress, and increased focus on leadership and communication to strengthen the connection between Altera and our employees, with particular focus on key positions and competencies. We have improved our methodology and expanded reporting on voluntary turnover in 2022. As a result we do not present historical data for 2021 and 2020 for all categories of this disclosure.	Voluntary turnover	number	131	169	nr	Calculated as the number of voluntary resignations of Altera employees by headcount during the reporting period, overall and for each subcategory.	GRI 401-1
		Onshore	number	53	52	nr		
		Women	number	25	nr	nr		
		Men	number	28	nr	nr		
		Offshore and aboard	number	78	117	nr		
		Women	number	2	nr	nr		
		Men	number	76	nr	nr		
		Voluntary turnover rate, overall	percentage	6.5%	7.6%	nr	Calculated as the total number of permanent employees who leave Altera voluntarily during the reporting period divided by the average of the number of permanent employees by headcount at the beginning and end of the reporting period. Where presented for a subcategory of employees (e.g., onshore, women onshore), the voluntary turnover rate is calculated as the total number of permanent employees in that subcategory who voluntarily terminated their employment with Altera during the reporting period, divided by the average of the number of permanent employees in that subcategory by headcount at the beginning and end of the reporting period.	
		Onshore	percentage	12.0%	11.4%	nr		
		Women	percentage	14.5%	nr	nr		
		Men	percentage	10.2%	nr	nr		
		Offshore and aboard	percentage	5.0%	6.7%	nr		
		Women	percentage	4.1%	nr	nr		
		Men	percentage	5.0%	nr	nr		

Disclosures table

nr: not reported, data not collected

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Social disclosures								
Parental leave	We track parental leave data as for permanent employees only. This disclosure is new for 2022. As a result we do not present historical data for 2021 and 2020 for this disclosure.	Employees who took parental leave	number	34	nr	nr	Calculated as the number of permanent employees who initiated parental leave within the reporting period.	GRI 401-3
		Women	number	22	nr	nr		
		Men	number	12	nr	nr		
		Weeks of parental leave taken, in aggregate	number	478	nr	nr	Calculated as the total number of weeks of parental leave taken by permanent employees within the reporting period, excluding additional weeks of parental leave that were taken by the same employees before or after the reporting period.	
		By women	number	282	nr	nr		
		By men	number	196	nr	nr		
		Employees who returned to work following parental leave	number	21	nr	nr	Calculated as the number of permanent employees who returned to work following parental leave within the reporting period, even if a portion of their overall parental leave took place in the prior reporting period.	
		Women	number	15	nr	nr		
		Men	number	6	nr	nr		
		Employees who remained employed 12 months after returning to work following parental leave	number	18	nr	nr	Calculated as the number of permanent employees who remained employed by Altera 12 months following the conclusion of their parental leave, where the 12 month milestone occurred within the reporting period.	
		Women	number	7	nr	nr		
		Men	number	11	nr	nr		
Training	Training is integral to our safety management and competence management systems. Training objectives and programmes are set according to regulatory requirements and industry standards. Refer to the Power of our TEAM and individual business unit sections of the report for details about our approach to learning and competence.	HSE training	hours	28,313	61,542	nr	Does not include health, safety, and environment (HSE) training data for our Shuttle and Storage business unit, which operates our shuttle tanker, FSO, and UMS fleets.	GRI 404-1
		Cybersecurity training	hours	800	1,095	nr		
		Compliance and ethics training	hours	406	503	nr	Caclulated on the basis of average completion time for annual Code of Conduct training.	

Disclosures table

Employee distribution matrices

	Female	Male	Total
Overall			
Total number of employees	218	1792	2010
Number of permanent employees	214	1705	1919
Number of temporary employees	4	87	91
Number of full-time employees	214	1792	2006
Number of part-time employees	4	-	4
Number of onshore employees	166	267	433
Number of employees offshore and aboard	52	1525	1577

	Female	Male	Total
Asia Pacific			
Total number of employees	55	587	642
Number of permanent employees	53	561	614
Number of temporary employees	2	26	28
Number of full-time employees	55	587	642
Number of part-time employees	-	-	-
Number of onshore employees	53	36	89
Number of employees offshore and aboard	2	551	553

	Female	Male	Total
Other regions			
Total number of employees	3	144	147
Number of permanent employees	2	131	133
Number of temporary employees	1	13	14
Number of full-time employees	3	144	147
Number of part-time employees	-	-	-
Number of onshore employees	1	6	7
Number of employees offshore and aboard	2	138	140

	Female	Male	Total
Europe			
Total number of employees	100	653	753
Number of permanent employees	99	631	730
Number of temporary employees	1	22	23
Number of full-time employees	96	653	749
Number of part-time employees	4	-	4
Number of onshore employees	92	202	294
Number of employees offshore and aboard	8	451	459

	Female	Male	Total
South America			
Total number of employees	60	408	468
Number of permanent employees	60	382	442
Number of temporary employees	-	26	26
Number of full-time employees	60	408	468
Number of part-time employees	-	-	-
Number of onshore employees	20	23	43
Number of employees offshore and aboard	40	385	425

Permanent employees: an employee with a contract for an indeterminate period (i.e., indefinite contract) for full or part-time work.

Temporary employees: an employee with a contract for a limited period (i.e., fixed term contract) that ends when the specific task or event that has an attached time estimate is completed (e.g., the end of a project or return of replaced employees).

Full-time: an employee whose working hours per week, month, or year are defined according to national law or practice regarding working time.

Part-time: an employee whose working hours per week, month, or year are less than the number of working hours for full-time employees.

Disclosures table

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Governance								
Corporate governance	Altera Infrastructure L.P. is managed and controlled by its general partner, Altera Infrastructure GP L.L.C., which exercises its authority through its board of directors (the board). As of 31 December 2022, the board comprised 11 members with deep collective experience and insight to Altera's industry and activities. The chair of the board is independent. The Altera board generally has ten members. However, in 2022, an eleventh director was appointed to the board for a discrete period of time to ensure additional restructuring expertise during Altera's Chapter 11 process. This appointment was intended to be temporary and lapsed on 6 January 2023. The board has adopted Corporate Governance Guidelines, which provide a framework for corporate governance, including appointment of board members and management of potential board member conflicts. The board has also established several committees to handle specified matters in depth: the Audit Committee, the Conflicts Committee, the Corporate Governance Committee, the Project & Opportunity Review Committee, and the Executive Oversight Committee. The Corporate Governance Guidelines, committee charters, information about board members, and their committee appointments are available at alterainfra.com.							GRI 2-9 GRI 2-10 GRI 2-11 GRI 2-15
Sustainability governance	Altera's group management, and specifically the Chief Executive Officer, is accountable for all sustainability-related matters, including the sustainability framework, targets, and performance, with oversight from the board. Group management makes quarterly reports to the board regarding health, safety, and the environment as well as any critical concerns regarding the group's sustainability performance. The heads of our individual business units and corporate units are accountable for driving sustainability initiatives within their areas of responsibility. Group management has assigned the responsibility for preparing consolidated group reporting on sustainability-related matters and metrics to the corporate sustainability function. Prepared disclosures are submitted to the board for review prior to publication. See the Sustainability governance section of the report for further details.							GRI 2-12 GRI 2-13 GRI 2-14 GRI 2-16
Material topics	See the Material topics and Our framework sections of the report for a full listing of our material topics and sustainability priorities.							GRI 3-1 GRI 3-2 SASB EM-SV-540a.1
Risk management	Altera's activities are subject to a number of risks and opportunities, which we identify and manage through our enterprise risk management (ERM) process. Under Altera's corporate governance structure, the audit committee of the board exercises oversight of the ERM process. See the Task Force on Climate-related Financial Disclosures (TCFD) appendix for a more detailed description of our ERM process.							SASB EM-SV-540a.1

Disclosures table

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Governance								
Climate risk management	See the Managing climate-related risk section of the report for details about our management of climate-related risks. See the TCFD appendix for climate risk reporting in accordance with the TCFD recommended disclosures.							GRI 11.2.1 GRI 201-2
Key policy commitments	Altera's key policy commitments for responsible business conduct are established in a number of internal governance documents, including the Code of Conduct, Global Sustainability Policy, Global Health, Safety, Security, Environmental, and Quality (HSSEQ) Policy, Global Asset Recycling Policy, and Global Whistleblower Policy, all of which are available at alterainfra.com. Additional relevant policy commitments are established in internal governance documents that are not publicly available, including the Global Anti-corruption Policy, Global Privacy Policy, Global Competition Policy, Global Trade Control Policy, Global Drug and Alcohol Policy, Global Anti-Discrimination, Anti-Harassment and Fraternisation Policy, and Global Procurement Policy. Our CEO approves all policy commitments, except for those in the Code of Conduct, Global Anti-Corruption Policy, and Global Whistleblower Policy, which are approved by the board. Each of our key policy commitments is anchored with a specific business unit or corporate unit function responsible for implementation. We communicate the requirements and expectations of our Code of Conduct and policy commitments internally via a number of channels, including our intranet, Bridge. We conduct annual Code of Conduct training, require confirmation of key policies at onboarding, and provide targeted training to employees in relevant positions.							GRI 2-23 GRI 2-24
Human rights	Altera is committed to respecting and supporting internationally recognised standards of fundamental human rights and decent working conditions. We are guided in our business dealings by the United Nations' Guiding Principles on Business and Human Rights. We report annually on our human rights due diligence activities in accordance with the UK Modern Slavery Act and Norwegian Transparency Act. Refer to the Responsible business section of the report for details of our human rights due diligence program. Our Global Sustainability Policy and annual statutory human rights statements are available at alterainfra.com when published.	Suppliers classified as high risk for human rights, according to supplier type	number	54	nr	nr	Suppliers that provide a service classified by Altera to present a high risk for negative human rights impacts, based on the nature of the service provided and regardless of country.	GRI 2-23 GRI 409-1
		Suppliers established in a high risk country	number	144	nr	nr	Suppliers of any type that are established in a country identified as high risk according to the UNEP FI Human Rights Guidance Tool for the Financial Sector.	
		Suppliers screened for human rights governance	number	24	nr	nr	Suppliers that have completed Altera's human rights questionnaire as part of Altera's third party due diligence procedures.	
		Supplier audits conducted, including human rights scope	number	3	nr	nr	On-site supplier audits including a human rights focused scope of work initiated in 2022, even if not completed within the reporting period	

Disclosures table

Governance

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Business Ethics	**Anti-corruption compliance program** Altera strictly prohibits all forms of corruption in our worldwide operations. This commitment is reflected in both the Altera Code of Conduct and Global Anti-corruption Policy, which are approved by our board. Our corporate Compliance function maintains and drives implementation of our compliance program across the group. To ensure independence from the business, the group Chief Compliance Officer reports directly to the chair of the audit committee of our board and presents the status of the anti-corruption program to group management and to the audit committee quarterly. As Altera operates all over the world, we rely on a large global network of suppliers to support our operations. Our most significant corruption risks stem from the use of key suppliers, including logistics providers, customs brokers, shipbrokers, and business development agents. We rely on a proven set of tools to manage corruption risks, including • Focused compliance risk assessments of ongoing operations (updated quarterly) and new undertakings • Rigorous risk-based third-party due diligence processes integrated with our third party onboarding process • Regular sanctions and restricted-party screenings of suppliers and customers • Compliance review of proposed business transactions • Mandatory annual compliance training for board members and workforce and additional targeted training for those with higher exposure to compliance risks • Hospitality and conflict of interest disclosure and approval requirements • Standard compliance contract clauses In 2022, we also started to develop a focused set of procedures to monitor the operating effectiveness of our anti-corruption program, which we plan to implement within 2023. We have not been the target of any legal or enforcement actions regarding corruption in 2022. Refer to the Responsible business section of the report for additional information about our approach to business ethics.	Confirmed incidents in which employees were dismissed or disciplined for corruption.	number	-	-	-		GRI 11.20.1 GRI 205-1 GRI 205-3 SASB TR-MT-510a.1 SASB TR-MT-510a.2 SASB EM-SV-510a.2
		Confirmed incidents in which business partners were dismissed or disciplined for corruption	number	-	-	-		
		Public legal cases regarding corruption brought against Altera or its employees	number	-	-	-		

Disclosures table

Governance

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Business Ethics continued	**Business ethics communication and training** We communicate our Code of Conduct and supporting requirements extensively internally. We require our board members, onshore workforce, and relevant workforce offshore and aboard to confirm their commitment to the Code of Conduct in writing annually in connection with mandatory Code of Conduct training, which includes an anti-corruption module. New joiners onshore, offshore and aboard are also required to sign on to the Code of Conduct and key corporate policies at onboarding. Our Code of Conduct is available to our stakeholders on our website. In 2022, we also adopted a new Supplier Code of Conduct to clarify our expectations for our suppliers, which is incorporated by reference in our general terms and conditions. We do not otherwise provide anti-corruption training to suppliers. In 2022, an eleventh director was appointed to the Altera board for a discrete period of time to ensure additional restructuring expertise during Altera's Chapter 11 process and they were not assigned the 2022 Code of Conduct training. Given the temporary nature of the appointment, this director is not included in training completion numbers disclosed here. In 2021, Altera shifted the timing of its annual Code of Conduct training from December to January of the training year. As a result, Code of Conduct training was run in December 2019 and January 2021, but not during the 2020 calendar year.	Board members who completed annual Code of Conduct training	number (percentage)	10 (100%)	10 (100%)	nr		GRI 205-2
		Workers onshore who completed annual Code of Conduct training	number (percentage)	556 (98%)	583 (100%)	nr		
		Assigned workers aboard and offshore who completed annual Code of Conduct training	number (percentage)	340 (91%)	378 (98%)	nr		
	Maritime corruption risk Altera vessels trade worldwide and do occasionally face risks of maritime corruption, including the risk of extortionate or improper demands from shore side authorities for small amounts of money or goods from the bonded store (such as cigarettes) to permit or facilitate vessel clearance. Such payments are generally referred to as "facilitation payments". This risk is most present for Altera's towage vessels (operating by ALP Maritime Services) and shuttle tankers trading conventionally, as these vessels are more likely to trade in jurisdictions where corruption is an underlying challenge. Our business units maintain specific procedures targeting maritime corruption risk, and we incorporate targeted training on maritime corruption into crew training and seminars. Altera is also a proud member of the Maritime Anti-corruption Network (MACN), a global business network working towards eliminating all forms of maritime corruption. In 2022, we recorded no facilitation payments from our business activities.	Facilitation payments made	number	-	2	3		GRI 205-3 SASB TR-MT-510a.1
		Port calls in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index (CPI)	number	-	nr	nr	Disclosures for 2022 based on the 2021 CPI. The 20 countries with the lowest rankings in the 2021 CPI are (in descending order): Eritrea, Congo, Guinea Bissau, Chad, Comoros, Haiti, Nicaragua, Sudan, Burundi, Democratic Republic of the Congo, Turkmenistan, Equatorial Guinea, Libya, Afghanistan, North Korea, Yemen, Venezuela, Somalia, Syria, and South Sudan. This disclosure is new for 2022; we do not report historical data.	
	Competition Altera strictly prohibits anti-competitive behaviour in our worldwide operations. This commitment is reflected in both the Altera Code of Conduct and our Global Competition Policy. Altera was not the target of any legal or enforcement actions regarding anti-competitive or monopolistic practices in 2022.	Legal or enforcement actions regarding anti-competitive policies	number	-	-	-		GRI 206-1

Disclosures table

Governance

Topic	Disclosure	Accounting metric	Unit	2022	2021	2020	Notes	Reference
Political contributions	Altera does not make or permit political contributions.	Value of contributions	USD	-	-	-		GRI 415-1
Asset recycling	Altera has control over the recycling of our vessels. We will only choose to recycle a vessel if we cannot identify a viable alternative use, and we proactively ensure that all recycling activity is responsible and compliant with applicable law and our Global Asset Recycling Policy. We have a strict audit and inspection regime for approval of chosen ship recycling facilities (SRF) that goes beyond the standards set by the Hong Kong Convention. See the Responsible business and Altera Shuttle and Storage business unit sections of the report for information about our approach to asset recycling.	Recycling projects initiated during the reporting period	number	2	4	5	As of the publication date of this report, both recycling projects initiated in 2022 remain ongoing.	
Discrimination	Altera strictly prohibits discrimination. This commitment is reflected in our Global Anti-Discrimination, Anti-Harassment and Fraternisation Policy. Concerns about potential or suspected discrimination are treated as compliance and ethics concerns under our Global Whistleblower Policy, and are handled by our corporate Compliance function.	Confirmed incidents of discrimination	number	-	-	-		GRI 406-1
Compliance with laws and regulations	Altera did not identify any instances of material non-compliance with laws and regulation, and therefore did not receive any significant fines or non-monetary sanctions for non-compliance with laws, during the reporting period. In January 2020, Økokrim (the Norwegian National Authority for Investigation and Prosecution of Economic and Environmental Crime) and the local police carried out a search of the premises of Altera Infrastructure Norway AS in Stavanger, Norway. The search and seizure warrant was issued pursuant to suspected violations of Norwegian pollution and export laws in connection with the export of the Navion Britannia shuttle tanker from the Norwegian Continental Shelf in March 2018. Having reviewed relevant materials together with our advisors, we continue to believe that we acted in accordance with the relevant rules and regulations and deny the alleged violations.	Confirmed incidents of material non-compliance with law and regulation	number	-	-	-		GRI 2-27
		Value of any fines or monetary sanctions for non-compliance with law and regulation	USD	-	-	-		
Seeking advice and raising concerns	Altera maintains a Global Whistleblower Policy and supporting investigations procedures. We also maintain the Altera Infrastructure Reporting Hotline, a confidential and secure reporting tool administered by an independent third party that allows for anonymous reporting, where permitted by local law. It is accessible to the group's workforce as well as the general public at alterainfra.com. Reported concerns are handled and investigated, as necessary, by the Altera corporate compliance function, which is also generally available to offer guidance and answer questions about implementing and adhering to the Altera Code of Conduct and supporting global policies. In 2022, we registered seven reports of compliance and ethics concerns under our Global Whistleblower Policy, either directly through our Reporting Hotline or via internal channels. All were handled in accordance with internal procedures.	Reports received	number	7	6	5		GRI 2-26 GRI 11.20.1

TCFD recommended disclosures

Topic	Recommended disclosure
Governance	
Organisational governance around climate-related risks and opportunities	**The board's oversight of climate-related risks and opportunities** The Altera board has reserved oversight of group's enterprise risk management (ERM) process (described in the Risk Management section of this table), including climate-related risks incorporated therein, and has anchored this oversight responsibility with the audit committee. The ERM process is run quarterly. Risks assessed as more significant are included in quarterly group management reports to the audit committee. The board further monitors and oversees the performance of group management, including its management of climate-related risks and opportunities and progress against established emissions-reduction targets. **Management's role in assessing and managing climate related risks and opportunities** Group management is overall responsible for ensuring climate-related risks are appropriately managed across the Altera group. Management of each business unit is accountable for identifying and appropriately managing climate-related risks within that business unit's operations. Group management has appointed a VP Corporate Sustainability to facilitate a common approach to climate-related risk and opportunity management across the group.

Topic	Recommended disclosure
Strategy	
Actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material	**Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long-term, and impact on the organisation's businesses, strategy, and financial planning** Altera currently considers and assesses climate-related risks primarily against a short-term time horizon of 1 to 5 years, which aligns with the time horizon of our ERM process. In 2023, we expect to progress our assessment of climate-related risks to also consider impact over a medium- and long-term time horizon. We also use our ERM process to identify those climate-related risks that may have material impacts, including financial, on our business activities. Within this framework, we have identified the following as the most significant risks and opportunities. **Risks** Our climate-related risks stem mostly from the transition to a decarbonised economy. Increased pricing of emissions will increase our and our clients' costs, and we monitor proposed changes to emissions and carbon costs closely. Stigmatisation of our industry may increase the cost of financial capital and make it more difficult to attract and retain talent. We also face some risks arising from the physical and political impacts of climate change. Severe weather events and geopolitical instability resulting from climate change may disrupt our crewing schedules and supply chains and increase the costs of inputs to our business activities. **Opportunities** The risks of climate change also create opportunities for those businesses that can offer solutions. We have established planning projects in Altera Shuttle and Storage and Altera Production to leverage our technical expertise to develop climate-efficient offerings to our shuttle tanker, FSO, and FPSO clients. We are actively seeking out new business models that are aligned with the energy transition, most prominently in our Stella Maris CCS project (see the Commitment to the energy transition section of the report body for further details) and are committed to allocating the majority of new capital to new, transition-aligned business ventures by 2026, with the goal of generating the majority of new cashflow from such ventures by 2030. Altera Shuttle and Storage and ALP Maritime Services are also investigating new commercial models aligned with the energy transition. **Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.** See the description above. **Describe the resilience of the organisation's strategy, taking into consideration different climate related scenarios, including a 2°C or lower scenario:** We have not yet formally considered Altera's resilience to different climate change scenarios.

Topic	Recommended disclosure

Risk Management

Identification, assessment and management of climate-related risks.

Describe the organisation's processes for identifying and assessing climate-related risks

Risk and opportunities arising from Altera's activities, including those that are climate-related, are identified and assessed through the group's enterprise risk management (ERM) process. The ERM process is facilitated by the corporate Risk and Audit Services function.

Business unit management teams identify and assess enterprise risks on a quarterly basis, scoring each risk for consequence and likelihood over the coming five years on a rating scale running from 1 to 5, where 5 is high. These two independent scores are then multiplied to give a value of inherent risk with a score of 25 signifying imminent, and catastrophic risk. The output of this assessment is a heatmap which indicates risk severity, and aids in risk prioritisation. Risks are then further categorised as low risk, moderate risk and high risk as defined below:

- Low risk: inherent risk score ≤ 5
- Moderate risk: inherent risk score of 6–12
- High risk: inherent risk score >12

Our ERM process runs on a business unit basis. Business unit ERM assessments are presented to group management quarterly and are further consolidated to create a group-wide overview, and risks assigned an inherent risk score of 9 or above are included in quarterly group management reports to the board.

Describe the organisation's processes for managing climate-related risks.

Business unit management is accountable to group management for managing the impact of identified risks within their business unit operations as part of the the overall ERM process. Risks assessed as moderate or high in the ERM process are reported to the board, which exercises oversight of the management of these risks through the audit committee.

Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.

Sustainability and climate-related factors are generally reflected in the ERM process (described above) as part of the political, regulatory, and social landscape of our industry.

However, in 2022, group management took steps to formalise the inclusion of climate-related risks in the ERM process. A register of climate-related risks drawn from the TCFD recommendations was defined and presented to management of each of the operating business units for discussion and initial assessment (over a five year time horizon) in Q4 2022. These climate-related risks are formally included in the ERM process from Q1 2023.

Topic	Recommended disclosure

Metrics and Targets

Metrics and targets used to assess and manage relevant, material climate-related risks and opportunities.

Disclose the metrics used by the organisation to assess climate related risks and opportunities in line with its strategy and risk management process.

Altera reports on Scope 1 and a portion of Scope 2 and Scope 3 emissions from its business activities, calculated according to the GHG Protocol on an operational control basis. We report on absolute emissions in tonnes of CO_2 equivalent (tCO_2e).

We have also set emissions intensity targets, and report on the emissions intensity performance for each of our fleets, as described in the Decarbonisation section of the report body and in individual business unit chapters.

Tracking of this data enables us to measure our emissions performance over time, which informs our assessment of identified climate-related risks and our resilience to such risks. See the Disclosures table of this report for relevant emissions disclosures.

Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.

Absolute Scope 1, Scope 2, and Scope 3 emissions and relevant emissions intensity disclosures are reported in the Disclosures Table.

Describe the targets used by the organisation to manage climate related risks and opportunities and performance against targets.

Each of Altera Infrastructures business units have identified emissions intensity metrics and set emissions intensity targets to gauge and measure the direct emissions (Scope 1) performance of their fleets.

See the Decarbonisation section of the report body and individual business unit chapters for information on Altera's climate-related sustainability goals, and progress towards those goals.

Fleet information

This fleet list includes all vessels within our reporting boundary for 2022 – vessels owned (in part or in full) or operated during 2022. As indicated in the notes, some vessels have been sold or ceased operations within 2022.

FPSO vessels, Altera operated

	Oil production capacity (bbl oil per day)	Built	Owner-ship	Field Name and Location	Notes
Petrojarl Foinaven	140,000	1996	0%	Foinaven, UK	Operated by Altera for Teekay Corporation until August 2022; thereafter redelivered to Teekay Corporation
Petrojarl Knarr	63,000	2014	100%	Knarr, Norway	In operation on the Knarr field in Norway until August 2022; thereafter in lay-up
Petrojarl Varg	57,000	1998	100%	Lay-up	Sold in June 2022
Petrojarl I	30,000	1986	100%	Atlanta, Brazil	
Voyageur Spirit	30,000	2008	100%	Lay-up	
Sevan Hummingbird	25,000	2007	0%	Chesnut, UK	Operated by Altera for Teekay Corporation until June 2022; thereafter redelivered to Teekay Corporation
Piranema Spirit	25,000	2007	100%	Lay-up	

FPSO vessels, Joint Venture operated

	Oil production capacity (bbl oil per day)	Built	Owner-ship	Field Name and Location	Notes
3R2 TLWP (fka P-61)	n/a	2013	0%	Papa Terra, Brazil	Operated by Altera & Ocyan; operatorship assumed on 30 December 2022; no emissions disclosed for 2022
3R3 FPSO (fka P-63)	140,000	2013	0%	Papa Terra, Brazil	Operated by Altera & Ocyan; operatorship assumed on 30 December 2022; no emissions disclosed for 2022
Cidade de Itajai	80,000	2012	50%	Bauna and Piracaba, Brazil	Operated by Altera & Ocyan; emissions (Scope 1 only) reported based on 50% equity share
Pioneiro de Libra	50,000	2017	50%	Mero/Libra, Brazil	Operated by Altera & Ocyan; emissions (Scope 1 only) reported based on 50% equity share

Shuttle tanker vessels

	Capacity (dwt)	Built	Ownership	Operating Region	Notes
Altera Wind	103,500	2021	100%	North Sea	
Altera Wave	103,500	2021	100%	North Sea	
Tide Spirit	129,830	2020	100%	North Sea	
Ingrid Knutsen	111,600	2013	In-chartered	North Sea	Redelivered to shipowner in December 2022
Scott Spirit	109,300	2011	100%	North Sea	
Peary Spirit	109,300	2011	100%	North Sea	
Nansen Spirit	109,300	2010	100%	North Sea	
Amundsen Spirit	109,300	2010	100%	North Sea	
Petroatlantic	93,000	2003	100%	North Sea	
Petronordic	93,000	2002	100%	North Sea	Recycling initiated in September 2022
Samba Spirit	154,100	2013	100%	Brazil	
Lambada Spirit	154,000	2013	100%	Brazil	
Bossa Nova Spirit	155,000	2013	100%	Brazil	
Sertanejo Spirit	155,000	2013	100%	Brazil	
Beothuk Spirit	148,200	2017	100%	Canada	
Norse Spirit	148,200	2017	100%	Canada	
Dorset Spirit	148,200	2018	100%	Canada	
Altera Thule	148,200	2022	100%	Canada	
Navion Gothenburg	152,200	2006	50%	Far-East Spot	Sold in August 2022
Nordic Brasilia	151,300	2004	100%	Far-East Spot	All operations in 2022 managed by a third party
Nordic Rio	151,300	2004	50%	Far-East Spot	All operations in 2022 managed by a third party; sold in December 2022
Aurora Spirit	129,830	2020	100%	North Sea	
Rainbow Spirit	129,830	2020	100%	North Sea	
Current Spirit	129,830	2020	100%	North Sea	
Aurora Spirit	129,830	2020	100%	North Sea	
Rainbow Spirit	129,830	2020	100%	North Sea	
Current Spirit	129,830	2020	100%	North Sea	

FSO vessels

	Capacity (dwt)	Built	Owner-ship	Field Name and Location	Notes
Randgrid	124,500	1995	100%	Gina Krog, Norway	
Suksan Salamander	78,200	1993	100%	Bualuang, Thailand	
Falcon Spirit	124,000	1986	100%	Al Rayyan, Qatar	Recycling initiated in August 2022

UMS units

	Beds	Built	Ownership	Location	Notes
Arendal Spirit	500	2015	100%	Karish, Israel	All operations in 2022 managed by a third party

Ocean towage vessels

	Bollard Pull (tonnes)	Built	Owner-ship	Trading area	Notes
ALP Keeper	302	2018	100%	Worldwide	
ALP Defender	305	2017	100%	Worldwide	
ALP Sweeper	303	2017	100%	Worldwide	
ALP Striker	309	2016	100%	Worldwide	
ALP Centre	298	2010	100%	Worldwide	
ALP Guard	285	2009	100%	Worldwide	
ALP Winger	208	2007	100%	Worldwide	
ALP Forward	219	2007	100%	Worldwide	
ALP Ippon	198	2006	100%	Worldwide	Sold in July 2022
ALP Ace	192	2006	100%	Worldwide	Sold in July 2022

Restatements of information

Greenhouse gas emissions disclosures
We identified and corrected a small number of errors in certain climate-related emissions calculations from past years, including total Scope 1, Scope 2, and Scope 3 emissions, flare gas release, and emissions from waste data. We have corrected our methodology and affected historic emissions disclosures have been restated accordingly.

From 2022, we report Scope 3 emissions data according to the 15 upstream and downstream value chain categories of the Greenhouse Gas Protocol. Historic emissions have been restated according to these categories.

Calculation of shuttle tanker IMO CII
Altera tracks the carbon intensity of its shuttle tanker fleet according to the IMO carbon intensity indicator (CII), measured as g CO_2/dwt-nm. Prior to 2022, Altera measured the carbon intensity of its shuttle tankers as the annual efficiency ratio (AER), also given in g CO_2/dwt-nm, but without a correction factor. The CII figures for our shuttle tanker vessels listed in this report incorporate the new correction factor, and historic data have been adjusted and restated accordingly.

Calculation of FPSO emissions intensity
To assess our emissions performance independent of activity level, we measure the emissions intensity of Altera-managed operating FPSOs (excluding FPSOs operated by our joint venture, Altera & Ocyan) by tracking Scope 1 and Scope 2 emissions per barrels of oil equivalent produced, expressed as kg CO_2e/bbl o.e. This methodology differs from that used in prior years. Previously, we calculated fleet average emissions intensity on the basis of only Scope 1 emissions and for all FPSOs in our fleet, including those FPSOs in lay-up and operated by our joint venture, Altera & Ocyan. From 2022, we will calculate the emissions intensity of our FPSO on the basis of Scope 1 and Scope 2 emissions, and only for operating FPSOs managed by Altera. Historic data presented in this report has been adjusted and restated according to our updated methodology.

Waste data
We identified errors in our calculation of waste data from our towage vessel fleet that led to overreporting of waste data in past years. These totals have been recalculated and restated.

Subsidiaries

Subsidiaries

- ALP Ace B.V.
- ALP Centre B.V.
- ALP Defender B.V.
- ALP Forward B.V.
- ALP Guard B.V.
- ALP Ippon B.V.
- ALP Keeper B.V.
- ALP Maritime Contractors B.V.
- ALP Maritime Group B.V.
- ALP Maritime Holding B.V.
- ALP Maritime Services B.V.
- ALP Ocean Towage Holding B.V.
- ALP Striker B.V.
- ALP Sweeper B.V.
- ALP Winger B.V.
- Altera (Atlantic) Chartering ULC
- Altera (Atlantic) Management ULC
- Altera Al Rayyan L.L.C.
- Altera do Brasil Servicos Maritimos Ltda.
- Altera Grand Banks AS
- Altera Grand Banks Shipping AS
- Altera Infrastructure (Philippines) Inc.
- Altera Infrastructure Arendal Holdings Limited
- Altera Infrastructure Coöperatief U.A.
- Altera Infrastructure Crewing AS
- Altera Infrastructure FFTA Holdings Limited
- Altera Infrastructure Finance Corp.
- Altera Infrastructure FPSO Holdings Limited
- Altera Infrastructure FSO Holdings Limited
- Altera Infrastructure Group Ltd.
- Altera Infrastructure Holdings L.L.C.
- Altera Infrastructure Holdings Pte. Ltd.
- Altera Infrastructure Norway AS
- Altera Infrastructure Production (Singapore) Pte. Ltd.
- Altera Infrastructure Production AS
- Altera Infrastructure Production Crew AS
- Altera Infrastructure Production Holdings Limited
- Altera Infrastructure Project Services LLC
- Altera Infrastructure Services Pte. Ltd.
- Altera Infrastructure Siri AS
- Altera Infrastructure Ventures AS
- Altera Knarr AS
- Altera Libra Netherlands B.V.
- Altera Luxembourg, S.a.r.l.
- Altera Norway Holdings AS
- Altera Norway Marine AS
- Altera Operations Australia Pty Ltd.
- Altera Petrojarl FPSO Petrolífera do Brasil Ltda.
- Altera Petrojarl I Servicos de Petroleo Ltda.
- Altera Piranema Serviços de Petróleo Ltda.
- Altera Production UK Limited
- Altera Shuttle Loading AS
- Altera Shuttle Loading Pte. Ltd.
- Altera Shuttle Tanker Finance L.L.C.
- Altera Shuttle Tankers L.L.C.
- Altera Voyageur Production Limited
- Altera Wave AS
- Altera Wind AS
- Amundsen Spirit AS
- Arendal Spirit AS
- Arendal Spirit L.L.C.
- Arendal Spirit UK Limited
- Aurora Spirit AS
- Bossa Nova Spirit L.L.C.
- Clipper L.L.C.
- Current Spirit AS
- Dampier Spirit L.L.C.
- Gina Krog AS
- Gina Krog II AS
- Gina Krog Offshore Pte Ltd
- Golar-Nor (UK) Limited
- Knarr L.L.C.
- Lambada Spirit L.L.C.
- Logitel Offshore Norway AS
- Logitel Offshore Pte. Ltd.
- Logitel Offshore Rig II Pte. Ltd.
- Logitel Offshore Rig III L.L.C.
- Nansen Spirit L.L.C.
- Navion Bergen AS
- Navion Bergen L.L.C.
- Navion Gothenburg L.L.C.
- Nordic Brasilia L.L.C.
- Nordic Rio L.L.C.
- OOG TKP FPSO GmbH
- OOG TKP FPSO GmbH & CO KG
- OOGTK Libra GmbH
- OOGTK Libra GmbH & Co KG
- OOGTK Libra Operator Holdings Limited
- OOGTK Libra Producao de Petroleo Ltda
- OOG-TKP Oil Services Ltd.
- OOG-TKP Operator Holdings Limited
- OOG-TKP Producao De Petroleo Ltda
- Peary Spirit L.L.C.
- Petrojarl I L.L.C.
- Petrojarl I Production AS
- Piranema L.L.C.
- Piranema Production AS
- Rainbow Spirit AS
- Salamander Production (UK) Limited
- Samba Spirit L.L.C.
- Scott Spirit L.L.C.
- Sertanejo Spirit L.L.C.
- Stella Maris CCS AS
- Teekay Australia Offshore Holdings Pty Ltd.
- Teekay FSO Finance Pty Ltd.
- Teekay Hiload L.L.C.
- Tide Spirit AS
- Tiro Sidon UK LLP
- TK–Ocyan Libra Oil Services Ltd.
- Varg L.L.C.
- Voyageur L.L.C.

Definitions

Definitions

AER	Annual efficiency ratio. AER is an indicator of the efficiency of a vessel as designed, and measures carbon emissions per the vessel's designed deadweight capacity (instead of actual cargo carried) per actual distance travelled in nautical miles and capacity-distance and is measured as grams of CO_2 equivalent per deadweight-nautical miles (gCO_2/dwt-nm). AER has been replaced by the IMO CII.
Bbl	Barrel
Bbl o.e	Barrel of oil equivalent
CCS	Carbon capture and storage
CII	IMO carbon intensity indicator of grams CO_2 per deadweight-nautical mile (gCO_2/dwt-nm), which measures a vessel's carbon emissions per capacity-distance.
CO_2e	Carbon dioxide equivalent. The global warming potential of emitted gases as carbon dioxide equivalents.
Dwt	Deadweight
Dwt-nm	Deadweight tonnage per nautical mile
Dwt-tm	Deadweight tonnage per tonne-mile
Employee	An individual who is in an employment relationship with the organization according to national law or practice
EEOI	Energy efficiency operating indicator. EEOI is an indicator of the efficiency of a vessel in operation, measuring total carbon emissions during a given time period per actual unit of cargo transported in metric tons and actual distance travelled in nautical miles and is measured as grams of carbon per tonne-mile (gCO_2/tm).
EEXI	Energy Efficiency eXisting ship Index (EEXI)
ESG	Environment, social, and governance
External Consultant	Employees with a time defined contract, employed by an external 3rd party. Not on Altera payroll.
FPSO	Floating production, storage and offloading
FSO	Floating storage and offloading
g Co_2/dwt-nm	Grams of carbon dioxide per deadweight tonnage per nautical mile
g Co_2/kWh	Grams of carbon dioxide per kilowatt hour
g Co_2/mill USD	Grams of carbo dioxide per million USD
g Co_2/t-nm	Grams of carbon dioxide per tonne-nautical mile
g Co_2/tm	Grams of carbon dioxide per tonne-mile
GHG	Greenhouse gas. A gas that traps heat in the atmosphere by absorbing infrared radiation.
GHG Protocol	A comprehensive global standardised frame-works to measure and manage emissions from private and public sector operations, value chains and mitigation actions
GJ	Gigajoule
GRI	Global Reporting Initiative
GWP	Global warming potential
HCI	High consequence injuries
HFO	Heavy fuel oil
HSE	Health, safety, and environment
IBC	International Business Council
IFO	Intermediate fuel oil
IMO	International Maritime Organisation
kg	Kilogram
KPI	Key performance indicator
kWh	Kilowatt hour
LNG	Liquid natural gas
LSFO	Low-sulphur fuel oil
LTI	Lost time incident. An LTI is a work-related injury or illness to an employee which a physician or licensed health care professional recommends days away from work due to the incident
LTI rate	Rate of LTIs per 1,000,000 man-hours for employees and contractors
m^3	Cubic meters
MDO	Marine diesel
MGO	Marine gasoil
NCS	Norwegian Continental Shelf
nm	Nautical mile
nr	Not reported, data not collected
NSA	Norwegian Shipowners' Association
nmVOC	Non-methane volatile organic compounds
NOx	Nitrogen oxides
OIM	Offshore installation manager
Permanent employee	An employee with a contract for an indeterminate period (i.e., indefinite contract) for full or part-time work
Produced water	Water that is brought to the surface during operations which extract hydrocarbons from oil and gas reservoirs
SASB	Sustainability Accounting Standards Board
Scope 1	Direct emissions from operations on an ownership equity basis
Scope 2	Indirect emissions associated with the purchase of electricity, steam, heat, or cooling
Scope 3	Other indirect emissions resulting from value chain activities
Sm^3	Standard cubic meters
SOx	Sulphur oxides
Spill	Accidental discharge of oil or chemicals to sea
SRF	Ship recycling facility
SRTI	Sustainable Ship Recycling Initiative
TCFD	Task Force on Climate-Related Disclosures
tCH_4 released	Total methane released
tCO_2e	Tonnes (metric tons) of carbon dioxide equivalent
t CO_2e/mill USD	Tonnes (metric tonnes) of carbon dioxide equivalent per million USD
t-nm	Tonne-nautical mile
tm	Tonne-mile
Temporary employee	An employee with a contract for a limited period (i.e., fixed term contract) that ends when the specified time period expires, or when the specific task or event that has an attached time estimate is completed (e.g., the end of a project or return of replaced employees)
Total employees	All permanent and temporary employees (onshore and aboard/crew)
Total workforce	Altera's employees and non-employee workers, onshore as well as offshore and aboard
TRC	Total recordable cases: The sum of all work-related fatalities, lost time injuries, restricted work injuries and medical treatment Injuries. TRC is identical to TRI (see below), but is the terminology used by the maritime fleets operated through Altera Shuttle and Storage.
TRI	Total recordable injuries: The sum of all work-related fatalities, lost time injuries, restricted work injuries and medical treatment Injuries.
TRI rate	Rate of TRIs per 1,000,000 man-hours for employees and contractors
Turnover rate	Number of permanent employees who left the company in 2022 voluntarily, or were laid off
UMS	Unit for maintenance and safety
UN SDGs	United Nations Sustainable Development Goals
VOC	Volatile organic compounds
VOCIC	VOC Industry Cooperation
WEF	World Economic Forum
–	A dash mark indicates zero

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