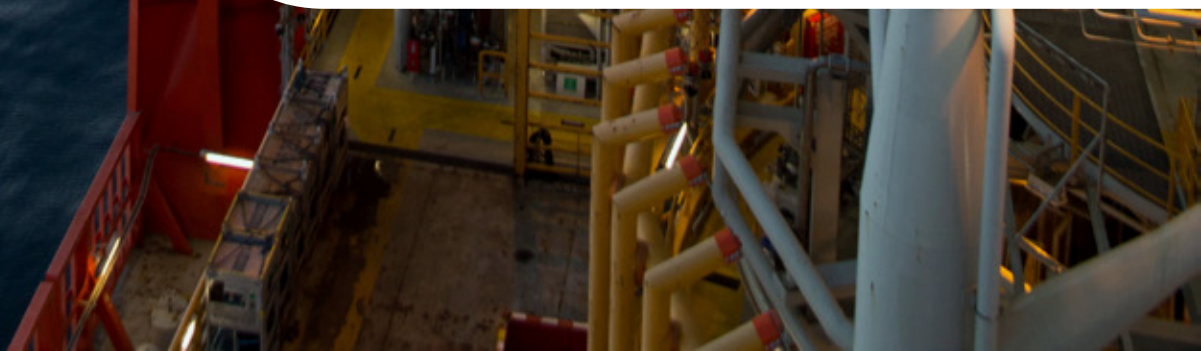




altera
INFRASTRUCTURE



Sustainability Report | 2021



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**“We need to think long term
but act now.”**

– Ingvild Sæther on sustainability

Our vision is to lead the industry to a sustainable future. This vision and our core values of trust, excellence, accountability, and momentum guide our decisions daily. Our vision also serves as our sustainability ambition. To achieve it, we structure our activities into a clear sustainability framework that helps us to prioritise and track and measure progress. Creating and launching this framework is one of our major sustainability milestones for 2021. With this toolset in place, the course to achieving our strategic goals is clear. The job now is to continue on our path, proving our words by putting them into action.

We support the core objectives of the Paris Agreement on climate change and the goal to achieve climate neutrality by 2050. To reduce emissions, we have a strong focus on innovation and technology but in the end, it is the people and their efforts that really moves the needle. In all parts of the organisation there is a strong will to find and utilise the solutions needed to reduce emissions both on- and offshore. We have established “Green Teams” in our business units, and we also have launched an internal emission reduction competition in our shuttle tanker fleet called Race to Reduce, which you can read more about in this report (on page 37).

The biggest challenge lies ahead. We all must act swiftly to minimize the impact of the climate challenge. In any crisis there are also opportunities, and many refer to the energy transition the world needs to go through as the fourth industrial revolution. The Altera platform is built to develop our core businesses while also thinking ahead and support industry developments needed to take part in the energy transition.

To only reduce emissions is not going to be enough. We also need to remove carbon from the atmosphere. The Stella Maris CCS project is one example of how we will use existing competence and innovative technology, pairing with like-minded business partners, to create new ventures in the green shift.

2021 was the second year of the pandemic, and Covid continued to impact how we work together. Our seafarers and offshore workers have faced the strongest restrictions, with delayed crew changes, travel restrictions and isolation. Around the world, our colleagues have been working from numerous home offices, and we have learned to work and interact in a different way than before. If there is anything we have proven during this period, is that we are willing and capable to adapt when the world needs us to do so. In the climate challenge, we need to think long term but act now. This is why we will succeed – this is why we are Altera.

Ingvild Sæther

*President & Chief Executive Officer
Altera Infrastructure Group Ltd.*

Leading the industry to a sustainable future

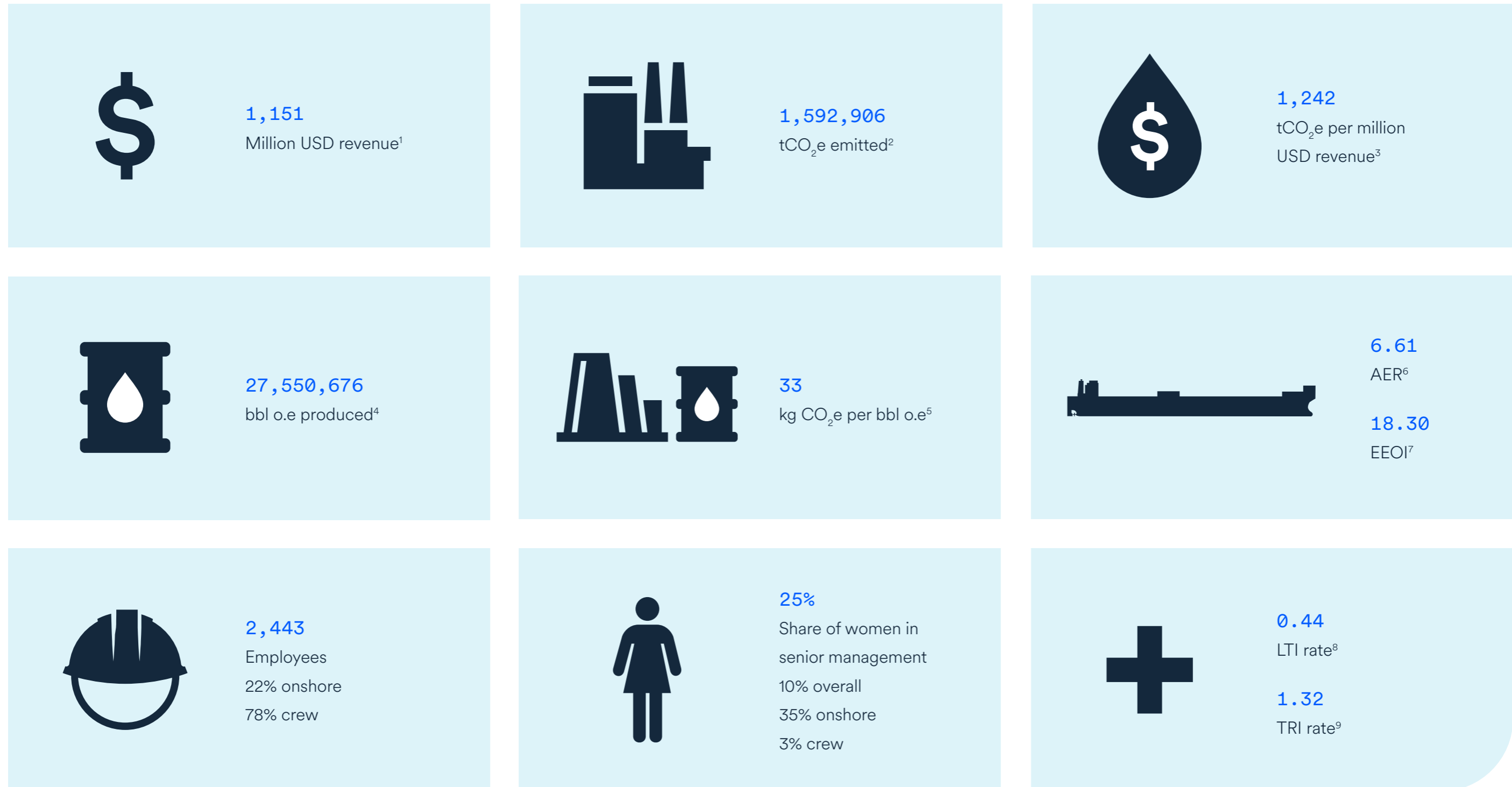
► Altera Vision



Altera Infrastructure at a glance

Notes

- ¹ Consolidated annual revenue.
- ² GHG emissions and revenue from joint ventures based on equity share.
- ³ Oil and gas production. Only relevant for FPSO vessels.
- ⁴ Production from joint ventures is based on equity share.
- ⁵ GHG emissions from joint ventures based on equity share.
- ⁶ Only relevant for FPSO vessels; calculated on the basis of total GHG emissions generated by all FPSOs; GHG emissions and revenue from joint ventures based on equity share.
- ⁷ Shuttle tanker fleet average (gCO₂/dwt-nm).
- ⁸ Shuttle tanker fleet average (gCO₂/t-nm).
- ⁹ Lost time incidents per million man-hours (24-hour day).
- ¹⁰ Total recordable injuries per million man-hours (24-hour day).





About the report

This report presents key sustainability-related metrics for Altera Infrastructure L.P. and its subsidiaries (Altera) for the fiscal year 2021. In preparing this report, we conducted an extensive review of prominent sustainability reporting standards to identify the disclosures most relevant for Altera and our stakeholders. Accordingly, this report includes disclosures based on the Global Reporting Initiative (GRI) standards, relevant Sustainability Accounting Standards Board (SASB) standards for our industry, and the World Economic Forum's (WEF) International Business Council (IBC) recommended common metrics for sustainability reporting. It is further inspired by the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) and has been prepared using the Norwegian Shipowners' Association's (NSA) environment, social, and governance (ESG) reporting guidelines.

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 lines Altera Production, Altera Shuttle and Storage, and Ocean Towing and Offshore Services (under our ALP Maritime Services brand), as well as corporate resources.

Unless otherwise stated, we currently report on Scope 1 and a portion of Scope 2 and Scope 3 greenhouse gas (GHG) emissions. We report according to the GHG Protocol, based on an operational control basis. We report workforce and health, safety, and environment (HSE) data for vessels and units that are operated under our business lines' management systems. Consolidated economic data 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 GHG emissions based on our 50% equity share; all other sustainability disclosures are reported through our joint venture partner, Ocyan. GHG emissions for vessels that we own, but do not operate, are reported under Scope 3. Four of our shuttle tanker vessels were operated by third parties for some or all of 2021.

Restatement of information

We have refined our emissions reporting methodology and improved our emissions inventory for 2021 from prior years, which provides a more precise accounting of emissions. To enable comparisons between 2021 data and recent years, we have applied this methodology to adjust and restate historic emissions reporting for 2020 and 2019.

In 2019, we reported full GHG emissions for all assets in which we had any ownership interest. As a result, we reported 100% of the GHG emissions for the two FPSOs owned by our joint venture, Altera & Ocyan. We have since refined our emissions reporting methodology and, starting from 2020, report on an operational control basis. As a result, we now report 100% of GHG emissions from the FPSO units we either wholly own and operate or operate for another party, and on a 50% equity share basis for the FPSOs owned and operated through Altera & Ocyan. We adjusted and restated historic GHG emissions data

in our 2020 report and have carried forward those restated figures to this report.

In 2019 and 2020, we reported our overall GHG emissions intensity as total GHG emissions divided by consolidated annual revenue. The emissions data in this calculation included a 50% share of certain emissions from FPSO vessels operated by our joint venture, Altera & Ocyan. However, Altera accounts for the joint venture using the equity method of accounting, according to which revenue from equity-accounted investments is not included within consolidated annual revenue. As a result, calculated emissions intensity did not incorporate revenue from the equity accounted joint venture. We have now corrected our methodology and adjusted and restated historic GHG emissions per million United States dollar (USD) revenue.

We adopted IFRS effective 30 September 2020. Prior to the adoption of IFRS, we prepared our financial statements in accordance with United States generally accepted accounting principles (USGAAP) or previous GAAP. As a result, the 2019 comparative financial data presented in this report have been adjusted from amounts reported in earlier financial statements prepared in accordance with previous accounting principles.

In 2020, we erroneously reported that we had no gas leaks above 0.1 kg/s in 2020 or 2019; in fact we experienced one gas leak in each of those years. Historic reporting in this report has been adjusted to correct this error.

In 2020, we reported 287,690 tonnes of oil in water for regular discharges to sea of produced water in 2020. This erroneously included an accidental discharge to sea (spill) that was already separately reported. We have adjusted and restated the volume of regular discharges to sea in 2020 in this report.

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.

2443

Total workforce

9

Offices

51

Vessels owned or operated in 2021

6

Countries of Operation



Customers



What we do

Altera provides critical infrastructure assets to the offshore energy industry. Through our three business lines – Altera Production, Altera Shuttle and Storage, and Ocean Towing and Offshore Services (under our ALP Maritime Services brand) – we owned and/or operated a fleet of over 50 assets in 2021, including floating production, storage, and offloading (FPSO) vessels, shuttle tankers, floating storage and offloading (FSO) units, long-distance towage and offshore installation vessels, and a unit for maintenance and safety (UMS). The majority 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.

Our structure

Altera Infrastructure L.P. is a limited partnership, established in 2006. 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.

As of 31 December 2021, our board comprised 10 members with deep collective experience and insight to our industry and activities. Our board exercises ultimate oversight authority for sustainability. Our board has also established several committees to handle certain matters in depth: the Audit Committee, the Conflicts Committee, the Corporate Governance Committee, the Project & Opportunity Review Committee, and the Executive Oversight Committee. Profiles of each of our board members, as well as their committee appointments, are available at alterainfra.com.

Our principal office is in the United Kingdom, specifically our office at Altera House in Westhill, Aberdeenshire.

Our business lines

Altera Production

An FPSO is a floating production, storage, and offloading 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 largest and most experienced independent FPSO operator in the North Sea.

In 2021, we wholly owned 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 in lay-up in Norway (sold to a new owner in 2022). In addition, we held a 50% stake in two FPSOs through our joint venture Altera & Ocyan – Cidade de Itajaí and Pioneiro de Libra, both operating in Brazil – and operated two FPSOs – Petrojarl Foinaven and Sevan Hummingbird – in the UK sector of the North Sea.

Altera Shuttle and Storage

Altera Shuttle and Storage owns and operates three vessel segments – shuttle tankers, floating, storage, and offloading (FSO) units, and one unit for maintenance and safety (UMS). 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 2021, we owned or part-owned 26 shuttle tankers, with ownership interests ranging from 50% to 100% (three of which we sold or recycled within the year), had one shuttle tanker under construction, and operated one additional in-chartered shuttle tanker. Of these, four vessels were operated by a third party for part or all of 2021.



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 2021, we owned and operated three FSO units operating in Norway, Qatar, and Thailand, and one additional unit in lay-up (which we recycled during 2021).

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 floating production and storage units,

floating liquefied natural gas units, and floating drill rigs. In 2021, we owned and operated one UMS, in lay-up.

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 wind installations and offshore production and storage units, including FPSO units and floating drilling rigs. Our vessels have a bollard pull of 192 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 2021, we owned and operated ten towage vessels.

See the Fleet information section of this report for a listing of our vessels we owned or operated in 2021.

Operations Spanning the Globe





Long-term value creation

The business lines included in our consolidated financial statements are Altera Production, Altera Shuttle and Storage, and ALP Maritime Services. The table below presents highlights of our consolidated operating results for 2019 to 2021. Each financial year runs from 01 January to 31 December. For additional information about our financial results, please see our consolidated financial reports at alterainfra.com.

Consolidated operating results	2021	2020	2019
GAAP	IFRS	IFRS	IFRS
Income Statement Data			
Revenues (thousands USD)	1 151 260	1 182 110	1 252 938
Net income (loss) (thousands USD)	(136 450)	(346 163)	(159 067)
Basic and diluted earnings (loss) per limited partner common unit	(0,39)	(0,90)	(0,44)
Non-GAAP			
EBITDA	392 364	165 846	407 790
Adjusted EBITDA	551 961	599 323	673 199

Data presented in thousands of USD, except per unit data. Altera adopted International Financial Reporting Standards (IFRS) effective September 30, 2020. Prior to the adoption of IFRS, Altera prepared its financial statements in accordance with USGAAP (or previous GAAP). As a result, the 2019 comparative information has been adjusted from amounts previously reported in Altera's financial statements prepared in accordance with its previous GAAP.

Sustainability at Altera Infrastructure

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

In 2021, we developed a sustainability framework 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.

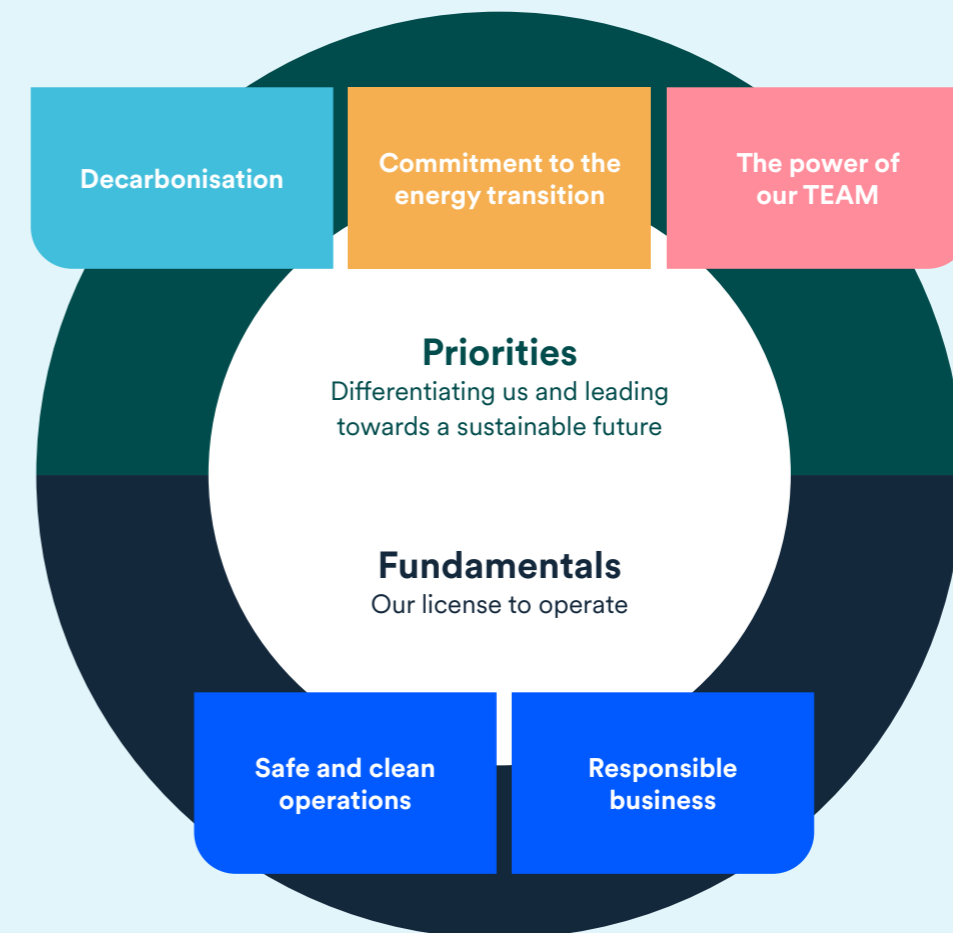
Our framework identifies three priorities through which we will drive progress towards our overarching sustainability ambition:

- **Decarbonisation** – reducing the direct climate impact from our operations
- **Commitment to the energy transition** – developing the new business models that will enable the energy transition and secure Altera’s roles 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 those targets.

We pursue our priorities while continuing to deliver excellence in the fundamental areas that serve as our license to operate. This includes performing safe and clean operations and acting responsibly and with integrity.

Altera sustainability priorities



Altera sustainability framework

		Topics	Relevant SDGs	Targets
Priorities	Decarbonisation Deploy technical, operational and commercial solutions to reduce the GHG emissions and climate impact of our business operations	<ul style="list-style-type: none"> GHG emissions abatement Energy and operational efficiency Deployment of low-carbon technology 		<ul style="list-style-type: none"> Within 2022: Define concrete emission reduction targets and pathways aligned with the goals of the Paris Agreement for our group
	Commitment to the energy transition Deliver new offshore energy infrastructure business models and technical innovations that will drive the energy transition	<ul style="list-style-type: none"> New ventures Innovation in the vessel design and technology Risk and opportunity management 	  	<ul style="list-style-type: none"> By 2026: Allocate the majority of new capital to new business ventures aligned to the energy transition By 2030: Generate the majority of cashflow from such new ventures
	Power of our TEAM Provide a work environment that is supportive, inclusive, and professionally rewarding, where people can thrive	<ul style="list-style-type: none"> Attractive workplace Accountability framework Diversity and inclusion New career opportunities aligned with the energy transition 	 	<ul style="list-style-type: none"> Annually: Rate of voluntary turnover of permanent employees below 7.5% group-wide Representation of at least 35% for each gender within senior management
Fundamentals	Safe and clean operations Protect our people and the environment against harm by continuously improving our barrier systems	<ul style="list-style-type: none"> Asset and process integrity Emergency preparedness Occupational health and safety Green operations Ship recycling 	  	
	Responsible business Act with integrity, respect others, protect our assets, and comply with law	<ul style="list-style-type: none"> Cybersecurity Compliance and ethics Labour and human rights Local community investment 		

Our stakeholders

Our key stakeholders include those parties directly impacted by 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 2021:

- Norwegian Shipowners Association (NSA)
- Norwegian Oil & Gas (NOROG)
- Oil and Gas UK
- ABESPetro
- Step Change in Safety UK
- Norwegian Brazilian Chamber of Commerce
- Philippine Norway Business Council
- Volatile Organic Compounds Industry Cooperation
- SINTEF LowEmission Research Centre (see page 35)
- Net Zero Technology Centre (NZTC) (see page 35)
- Green Shipping Programme (see page 35)
- Maritime Anti-Corruption Network (MACN) (see page 61)
- Ship Recycling Transparency Initiative (SRTI) (see page 63).

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.

Governance

Our board exercises ultimate oversight authority for sustainability. The board reviews and approves our Code of Conduct and our compliance programme and oversees our HSE performance. The board also reviews, approves, and monitors fundamental financial and business strategies, major corporate actions, and our enterprise risk management process.

Subject to this board oversight, the executive team, led by our CEO, sets our group sustainability policy and ambitions, and is accountable for the group's overall sustainability performance.

The heads of our individual business lines and corporate units, in addition to their active involvement in setting the group ambitions as members of the group executive team, are also accountable for driving sustainability initiatives within their areas of responsibility and delivering on their part of the overall Altera sustainability goals.

Our corporate sustainability function is responsible for facilitating executive decision-making on sustainability topics, orchestrating a common approach to sustainability across the group, and delivering consolidated group reporting on sustainability matters and metrics.

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

Managing climate-related risk

Altera's activities are subject to a number of risks and opportunities, which we identify and manage through our enterprise risk management process. Sustainability and climate-related factors are reflected in



this process, as they inform the political, regulatory, and social landscape of our industry. Nonetheless, in 2021, we started work to build a more robust assessment of our climate-related risks in accordance with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD). This work will continue in 2022.

Our climate-related risks stem mostly from the transition to a decarbonised energy system, in the form of changing market conditions and 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. Key risks include:

- Increased regulation and pricing of GHG emissions, which affects Altera's and our client's pricing models
- Transitioning our vessels to lower emissions fuel and technology, which is expensive and carries the risk of investing in technology that is unsuccessful
- Stigmatisation of offshore oil and gas, which may raise our cost of capital and make it more difficult to attract and retain talent
- Changing demand for oil and gas and related services, which impacts our existing business models
- Increased costs of raw materials and supply chain disruptions caused by chronic or acute weather events, which may impact our efforts to upgrade and renew our fleet

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

Material topics

In 2020 to 2021, as a first step towards the development of our sustainability framework, we finalised a renewal of our stakeholder analysis and materiality assessment to identify the sustainability topics of greatest importance to our stakeholders and on which Altera has the highest potential for impact, positive or negative. Based on comprehensive dialogue with key internal and external stakeholders, 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, presented and explained in this report.

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

Decarbonisation



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 GHG 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.

For our part, Altera will deploy innovative technical, organisational, and commercial solutions to rapidly reduce the GHG emissions and climate impact of our existing business operations.

Our goals

Altera Shuttle and Storage business line has already set an ambitious goal to reduce the average annual efficiency ratio (AER) for our shuttle tanker fleet by 50% by 2030, compared to 2008 levels. We are now working to define concrete emission reduction targets and pathways aligned with the goals of the Paris Agreement for our group as a whole. We commit to doing so within 2022.

Our actions

Reducing the carbon intensity of our shuttle tankers

We operate our shuttle tankers on the belief that proactively reducing GHG emissions is a competitive advantage. The International Maritime Organization (IMO) has set a target to reduce the carbon intensity of international shipping by 40% by 2030, compared to 2008 levels. Bolstered by our sustainability vision and track record of successfully adopting new technologies, we have set a more ambitious target for our shuttle tankers – our goal is to reduce the carbon intensity of our shuttle tanker fleet (measured by average AER) by 50% by 2030, compared to 2008 levels.

AER is a carbon intensity metric reflecting a vessel's carbon emissions per capacity-distance and is measured as grams of CO₂ equivalent per dead-weight-nautical miles (dwt-nm). A lower AER value indicates more efficient emissions performance.

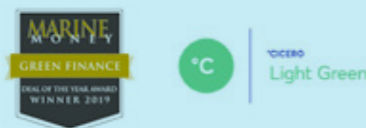
Thanks to a specific GHG emissions and activity reporting project we conducted for the shuttle tanker fleet in 2008 and 2009, we have good data to establish our 2008 average AER baseline of 9.35 gCO₂e/dwt-nm, which we have used to set the 50% reduction pathway. Since 2019, we have also reported verified voyage data to the IMO, including distance sailed and fuel consumed. We use this data to compare our verified AER performance to the reduction pathway to see if we are on track to meet our reduction target.

To drive emission reductions, we continually focus on improving operating efficiency, implementing technical enhancements where appropriate, and renewing our fleet with less carbon-intensive vessels as we approach 2030. Data regarding our actual progress towards this target is provided in this section under "Our performance".



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



Efficiency of shuttle tankers vs. conventional tankers

Shuttle tankers produce significantly higher AER 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 and which 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).

Because of this, Altera has worked together with its industry peers through Intertanko to develop and propose a correction factor which will allow the AER values for shuttle tankers and conventional tankers to be compared directly, and which is expected to be adopted at IMO in June 2022. The AER figures for our shuttle tanker vessels listed in this report do not incorporate a correction factor, but if the approved by the IMO, future reporting on AER values will apply the correction factor.

Altera E-Shuttles and Green Bond

Delivered in 2020, 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.

The E-Shuttles were also designed to achieve GHG emissions savings of 40% (including the reduction in CO2 equivalents from VOC emissions reductions) compared to our Explorer class shuttle tankers

(Amundsen Spirit, Nansen Spirit, Scott Spirit, and Peary Spirit), which were delivered in 2010 and 2011.

To assess the actual climate-related performance of the E-shuttles, we compare the official AER figures reported to the IMO for our Explorer class vessels to those reported for the E-Shuttles. The data confirm that the E-shuttles are more efficient than the last series of vessels built for trade in the North Sea (the conventional Explorer class vessels) – the average AER for the E-Shuttles was 21% lower than that for the Explorer class in 2021, and 28% lower in 2020. That said, the comparative AER dropped by 7% from 2020 to 2021. In addition, while the Explorer class vessels achieved a slight improvement in their AER in 2021, the average AER for the E-shuttles increased by about 6%. This largely stems from our clients’ instructions to use marine gas oil (MGO) as a primary fuel instead of LNG in the latter part of 2021 due to unprecedented gas prices.

Further, while the 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 in 2022 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 AER methodology does not address the effects of methane slip (see explanation on page 41). We do however expect to see an AER improvement compared to the Explorer class in the range of 25–30%. The remaining improvement towards the GHG reduction target of 40%, including VOC emissions, will be realized once all the key on-board systems are fully operational.

Fleet average AER of shuttle tankers compared to Explorer class

	2021	2020
Explorer Class	6.42	6.56
E-Shuttles	5.06	4.72
<i>Comparative E-Shuttle AER performance improvement</i>	21%	28%

Our FPSO technology positioning

Nearly all GHG emissions on a conventional FPSO come from power turbines, engines, heaters, and flaring. Implementing non-gas solutions for power turbines and other equipment would reduce emissions on an FPSO by 70%, while adding a closed-flare system would cut emissions by close to 100%.

We closely track the status of available, developing, and future potential 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. As an example, in connection with the redeployment of the Knarr FPSO, we are undertaking upgrades to the turret to allow the vessel to eventually be fully electrified. The impact of these designs on our environmental footprint is tracked and monitored, and the results fed back to improve future performance.

Our standard offshore customer offering reflects our commitment to be a market leader in the deployment of sustainable technologies. 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 FPSO offering incorporates a number of solutions that contribute to lowered emissions, including:

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

In addition to our standard technical solutions, we are finding ways to leverage new technology to improve our understanding of the technical condition of our facilities while reducing the need for human inspections – thereby leading to safer working conditions and reducing emissions.

The SENTIENT program, a collaboration with the Norwegian University of Science and Technology (NTNU) and other industry partners, develops auto-

nomous 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”.

The REDHUS (remote drone-based ship hull survey) program develops robot-based inspections to enable more objective, consistent, standardized inspections and reporting, contributing to an increased inspection quality. Both the REDHUS and CUI (corrosion under insulation) 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 sensor data and algorithm to predict corrosion under insulation.

Next generation FPSO technology

The transition to a more sustainable future has significant impact on FPSO operations as new policies, regulations, and stricter emissions targets are changing the requirements for oil and gas field developments. Technological solutions to meet these new requirements are under development in areas such as:

- Digitalisation
- Power supply; switching to shore-based sources or local off-grid wind parks
- Non-gas fired turbine technology based on ammonia and hydrogen
- Carbon capture and storage (CCS) solutions, including compact carbon capture technology used during production

We are contributing to the development of these solutions by carrying out internal research and development work and collaborating with industry and academia. In 2021, we were an active partner of the *LowEmission* research centre led by SINTEF in Trondheim, Norway, the Net Zero Technology Centre in Aberdeen, UK, and the Green Shipping Programme, in Norway.

In 2021, we established an internal study and recommend project focused on three key areas:

- CO₂ abatement and neutralisation technologies, such as CCS
- Zero-emission FPSOs, either fully electrified or employing zero emission power generators
- Future opportunities in the energy transition, such as hydrogen-based fuel

The outcome of this work will secure Altera's position as a leader in the design and operation of the next generation of low emission vessels.

Team effort reduces environmental impact

Involving everyone in the drive to improve environmental performance is vital for reaching our sustainability goals. This is why each of our FPSOs has a 'Green Team', which is open for all crew members to join. Each team's mission is to find ways to lessen their vessel's ecological impact, which can then help raise performance across the fleet. Since the initiative started over 20 years ago, the teams' valuable input has made a clear difference to our environmental footprint. Working in unison with management, they have reduced the climate impact of processing facilities and introduced several energy- and waste-reduction measures, which have cut emissions and lowered resource use on all vessels.



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](#).



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 co-invested £163 million with industry, approved more than 260 projects, and developed 23 commercialised products in support of this ambition. Read more about the NZTC [here](#).



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](#).

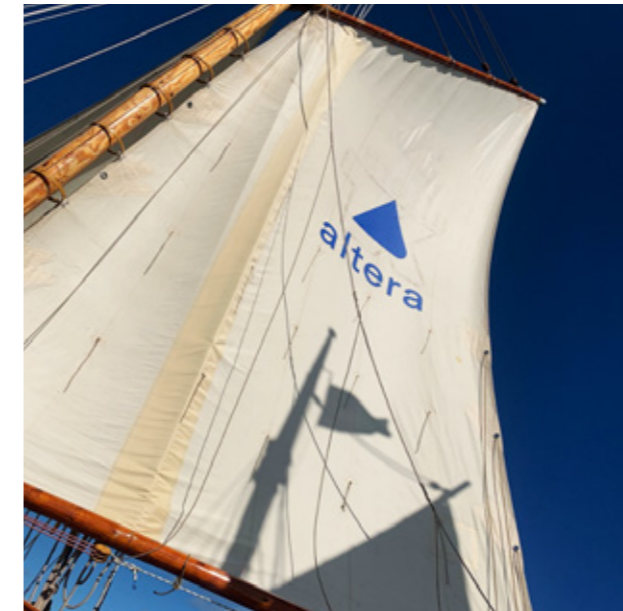


Sustainability team cuts emissions

In ALP Maritime Services, we are reducing emissions from our fleet of ten long-distance towage vessels.

Sustainability within our operations has been given greater prominence through the establishment of a dedicated team consisting of members from the technical, operational and commercial functions. By carefully mapping emission- and power-usage data from our fleet and reviewing how this data is managed, we identify opportunities for reductions and set precise targets for cutting fuel used by both engines and generators.

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 two initiatives. First, we are investigating heat-exchange technology for harnessing residual heat from engines to create electricity, which will save the fuel used to power generators. Secondly, we are in the process of replacing generator power with shore supply in the port of Rotterdam. This reduces diesel emissions and cuts noise pollution when the vessels are docked.



Race to Reduce

Living up to Altera’s strong vision to lead the industry to a sustainable future requires us to turn every stone to improve our sustainability performance.

As greenhouse gas intensity reduction is a key area to address, we launched the AIS fleet-wide ‘Race to Reduce’ campaign in December 2021. Here, we challenge all the shuttle tanker- and FSO-teams to reduce the carbon intensity of their operations.

The campaign takes the form of a competition, where each vessel competes to achieve the highest degree of reduction compared to its own emission baseline. The overall ambition for the campaign is to achieve fleetwide emission reductions of at least 5%. At the end of each year, the ship 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.

Abate Notation for Knarr FPSO

In 2021, classification society DNV introduced its new Abate class notation, which Altera piloted for the Petrojarl Knarr – making us the first FPSO owner in the world to do so. The Abate notation is designed to assist the owners and operators of offshore floating installations to identify and implement measures to reduce GHG emissions. The Abate notation enables measurable reductions in the installation’s GHG emissions by providing a structured approach to tracking abatement based on the design and operation of the individual installation.

Abate is a voluntary and modular notation, comprising a management aspect and several qualifiers that address different areas for application of abatement measures. The qualifiers are as follows, depending on the type of installation:

- **P - Power generation.** Power generation on offshore installations normally represents the greatest source of emissions.
- **F - Flaring.** Measures are available to reduce emissions even though the flare must be maintained for emergency situations.
- **Pr - Leakages and venting of methane.** In hydrocarbon processing systems this can be a significant source of emissions.
- **S - Storage tank venting.** For installations which store hydrocarbons, venting from storage tanks is a source of emissions.
- **CC - Carbon capture.** Capture of CO₂ in flue gases and their subsequent safe disposal and storage is a means of preventing GHG entering the atmosphere.

Of these, Flaring and Storage tank venting were chosen for Knarr. To meet the notations qualifiers, we have implemented measures such as data capture and tracking and analysis of potential flare and VOC release situation, and we constructed an abatement plan including technical and operational controls. This will be followed up with a five-year plan for emission abatement and an emission review every year. The notation reflects FPSO Knarr’s history of exceptional performance. Being the first FPSO owner in the world to pilot DNV’s innovative ABATE notation is an important step for Altera and in line with our vision to lead the industry to a sustainable future.

Our performance

GHG emissions

As a group, we emitted total GHG emissions (Scope 1, 2, and 3) of 1,593 thousand tonnes CO₂e in 2021, 75% of which are Scope 1 emissions resulting from the direct operation of our vessels and offices.

We currently report only a portion of Scope 3 emissions resulting from other activities connected to our operations, such as logistics services and travel. We are working to build a more complete inventory of Scope 3 emissions and, accordingly, our reporting for 2021 includes additional Scope 3 emissions categories for which we do not have data and therefore have not reported for prior years. For 2021, the Scope 3 emissions we do report accounted for 25% of our total.

Less than 1% of our total emissions are Scope 2 emissions resulting from purchased electricity and district heating for our offices and docked vessels. Scope 2 emissions data was not available in 2021 for some of our offices.

Overall, our total GHG emissions (Scope 1, 2, and 3) were 16% lower in 2021 than in 2020. However, as this total includes additional categories of Scope 3 emissions that are not available for 2020 and 2019, it is more appropriate to look to Scope 1 emissions – for which we have comparable data sets across reporting years – to assess our comparative performance over time.

In 2021, we emitted 1,196 thousand tonnes CO₂e of Scope 1 emissions, a 25% reduction compared to 2020. This is due primarily to the fact that we had fewer FPSOs producing oil and gas in 2021 than in 2020, which drove a 49% drop in Scope 1 emissions attributable to our FPSO vessels segment between 2021 and 2020. Scope 1 emissions attributable to our ALP Maritime Services towage vessels rose 49% in 2021, due to significantly increased activity in an improved market. Scope 1 emissions from our shuttle tanker segment fell 6% between 2020 and 2021 mainly due to the remaining of our LNG fuelled newbuilds were added to the fleet. Scope 1 emissions from our FSO vessel segment also dropped 10% over the same period.

Emissions intensity

Because absolute emissions fluctuate based on market conditions, we also track our emissions intensity in a variety of ways. We monitor GHG emissions intensity

for our group-wide activities by dividing total GHG emissions (Scope 1, 2, and 3) by turnover for a given year. In 2021, we emitted 1,242 tonnes CO₂e per million USD revenue, 14% lower than in 2020, which largely tracks the drop in total emissions over the same period.

We measure the emissions intensity of our Altera Production FPSO fleet by tracking GHG emissions from these vessels per barrels of oil equivalent produced. In 2021, our FPSO fleet generated on average 33 kilograms CO₂e total GHG emission (Scope 1, 2 and 3) per barrel of oil equivalent, on par with 2020. If we consider only the direct GHG emission that occur from the FPSOs (Scope 1), the fleet average emissions intensity drops to 27 kilograms CO₂e per barrel. Several of our producing FPSOs in 2021 outperformed the Scope 1 fleet average. Petrojarl Foinaven's Scope 1 emissions intensity was negatively impacted by the fact that the FPSO stopped producing in April 2021, but continued upgrade and decommission activity through the remainder of the year.

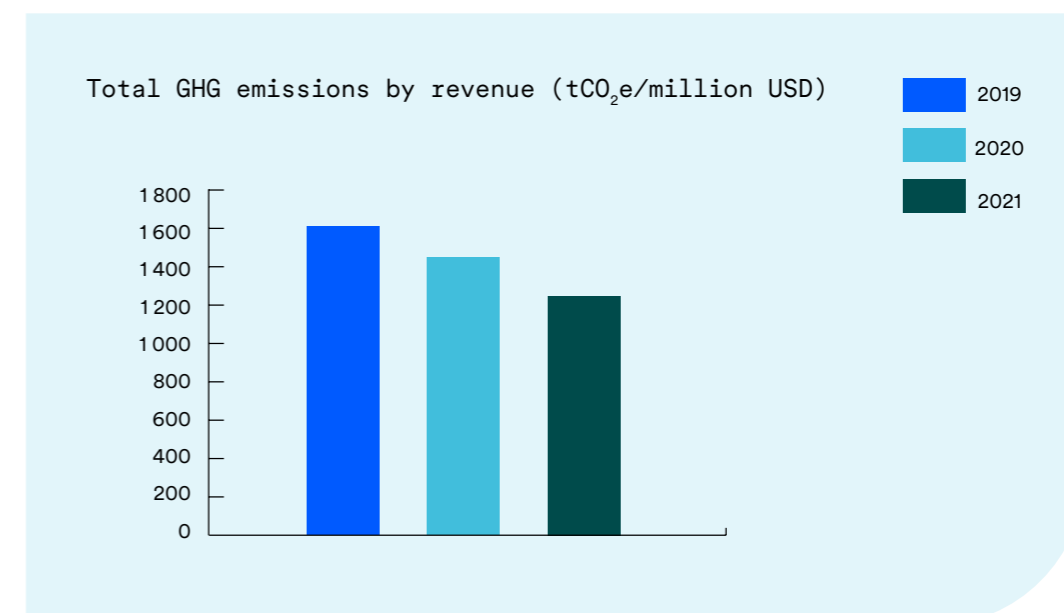
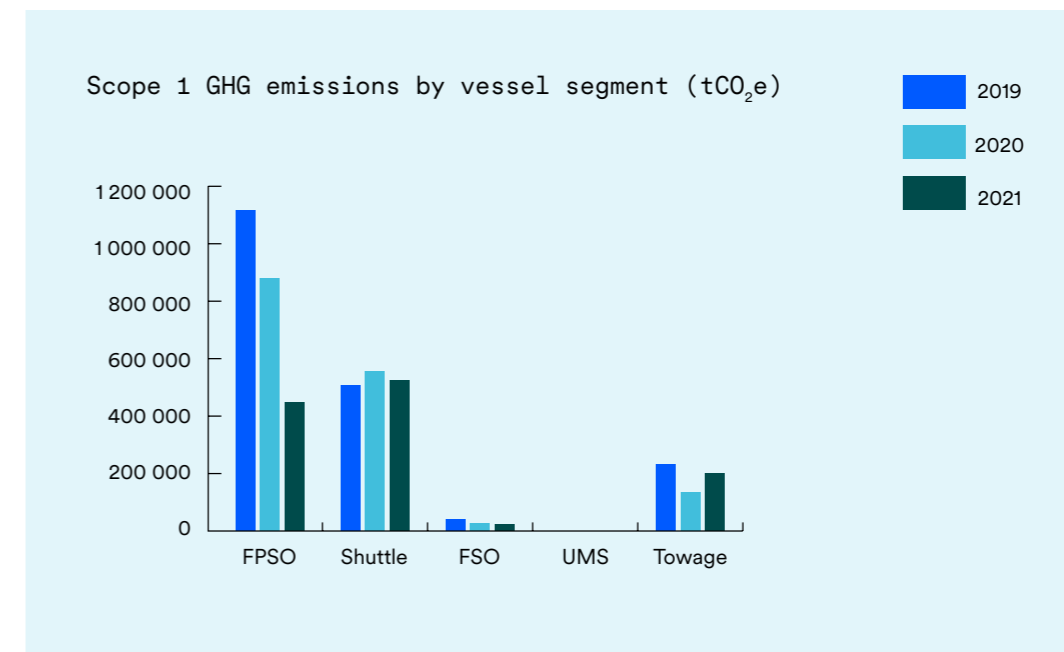
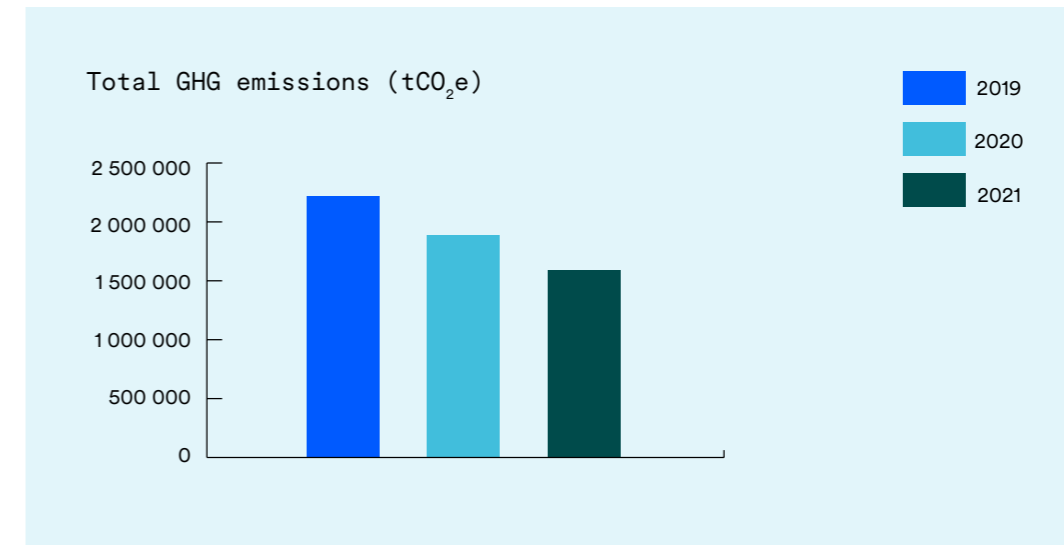
We have set an ambitious target to reduce the average annual efficiency ratio (AER) for our Altera Shuttle and Storage shuttle tankers (on a fleetwide basis) by 50% by 2030 compared to our 2008 performance. The average AER for our shuttle tankers in 2021 was 6.61 grams of carbon equivalent per dead-weight nautical mile, a 7.4% improvement from the 2020 AER of 7.14. This puts us in line with the emissions reduction pathway from our 2008 baseline.

Fuel consumption

In 2021, our operations consumed nearly 500 million gigajoules worth of fuel to power our vessels' engines and onboard generators. Although our vessels rely on a variety of fuels, nearly 98% of our overall fuel consumption comes from the burning of fuel gas by our FPSO vessels. Marine gas oil (MGO) accounts for just over 1% of our total consumption, and the remainder is split amongst various other types of fuel. Overall, our fuel consumption fell 24% from 2020 to 2021, which is generally in line with the reduction in Scope 1 GHG emissions over the same period and is due to the fact that we operated fewer FPSO vessels – and therefore consumed less fuel gas – in 2021 than in prior years.

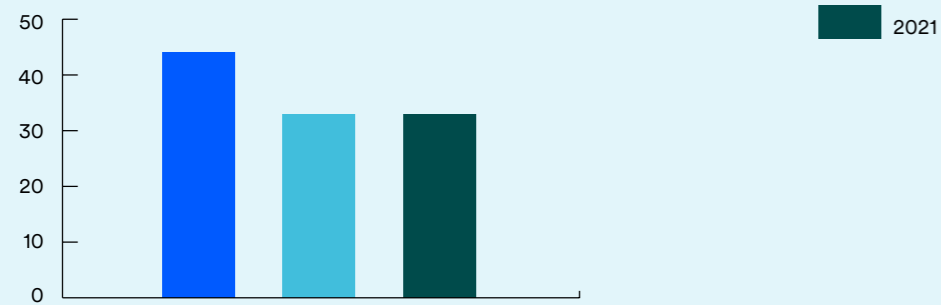
Flaring

We are committed to reducing flaring from our FPSO vessels. Flaring is the controlled burning of natural gas and is used to safely dispose of gas where it is not possible to otherwise capture it. Our standard FPSO solution offered to clients includes a closed



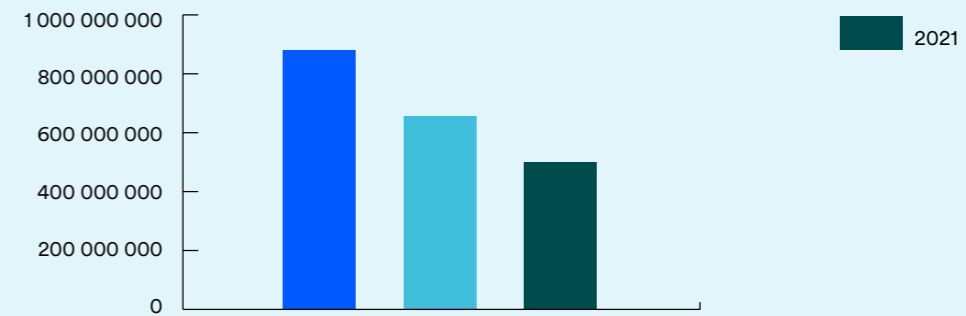
Altera accounts for its 50/50 joint venture, Altera & Ocyan, using the equity method of accounting. In line with International Financial Reporting Standards, the revenue from equity-accounted investments is not included within the consolidated revenue of Altera Infrastructure LP but has been incorporated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

Total GHG emissions by production, FPSO fleet average (kg CO₂e/bbl o.e)

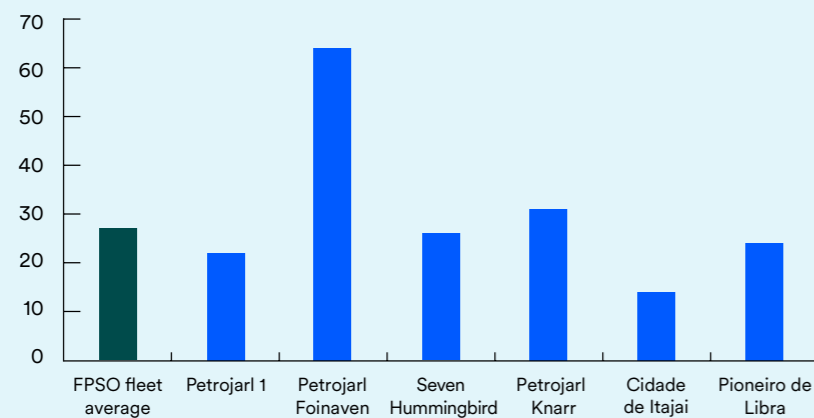


Calculated as for Scope 1, 2, and 3 GHG emissions.

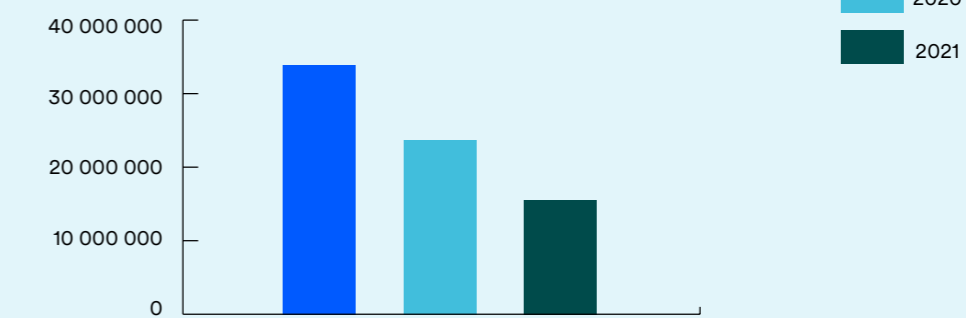
Fuel consumption (GJ)



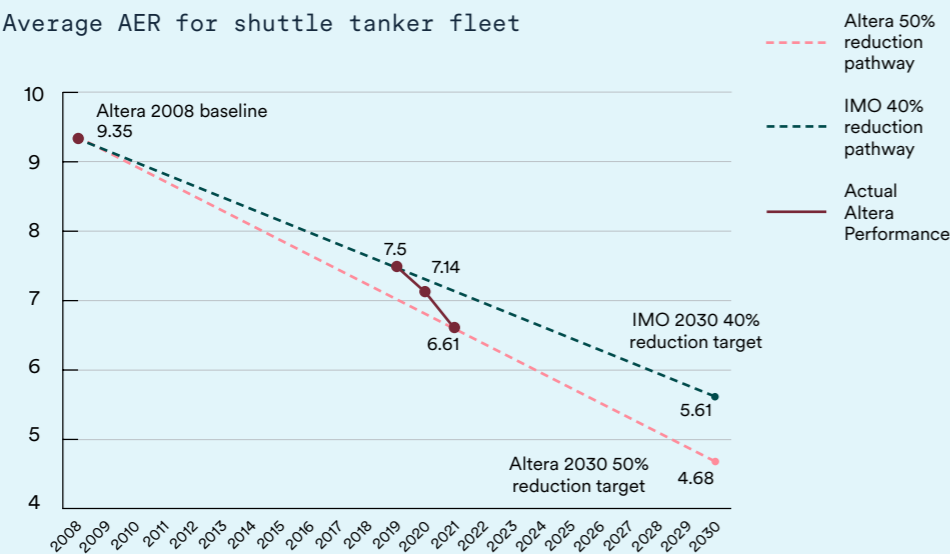
Scope 1 GHG emissions by production in 2021 (kg CO₂e/bbl o.e)



Total flare gas from FPSOs (Sm³)



Average AER for shuttle tanker fleet



flare system, in which flare gas is recovered rather than burned, and such a system is in use on our Knarr FPSO. We actively work with our clients to reduce flaring from our FPSOs while maintaining safe operations. Each of our operating FPSOs follow a flaring philosophy focused on identifying possible technical and operational controls to reduce flaring.

We measure flaring by the volume of flare gas released as well as the GHG emissions produced from flaring, which can vary depending on the composition of the flare gas at a specific installation. Absolute flaring numbers (measured as the total number standard cubic meters of flare gas released) dropped 35% in 2021 compared to prior years, as several of our FPSOs vessels have reached the end of their contracts and gone off field during 2020 and 2021. The CO₂e of this flaring are included in disclosed emissions data. Release of methane in connection with flaring is included in the methane

disclosure of other emissions to air in the Environmental Impact section of this report.

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 these methane emissions is small, the CO₂ equivalent global warming potential over a 100-year perspective is 25 times that of CO₂.

Relying on an estimate of 4 grams of methane emitted per kilowatt-hour of energy produced by the engines onboard our shuttle tankers, we emitted 238.2 tonnes of methane in 2020 and 605 tonnes in 2021 from our shuttle tanker fleet. The increase stems from taking delivery of more LNG powered vessels with subsequently more fleetwide LNG consumption in 2021 compared to 2020.

Commitment to the energy transition

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 expertise to delivering technically and commercially innovative new business ventures, technology, and offshore infrastructure solutions aligned with global climate commitments.

Our goals

We will allocate the majority of new capital to new business ventures aligned to the energy transition by 2026, and by 2030 will generate the majority of new cashflow from such ventures.

Our actions

We have made progress towards achieving our goals in 2021, starting with the establishment of a New Ventures unit within the Altera Group, anchored with Altera group leadership. We expect to name the head of the New Ventures unit within 2022.

We have also established planning projects in Altera Shuttle and Storage and Altera Production for the next generation of low-to-zero emissions shuttle tankers and FPSOs. Altera Shuttle and Storage and ALP Maritime Services are also

investigating new commercial models aligned with the energy transition.

Our most progressed new venture is our Stella Maris carbon capture and storage (CCS) project on which we are now working with Høegh LNG. 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. In 2019, Altera initiated the Stella Maris CCS project with the ambition to offer a chain of large-scale floating infrastructure for collection, transport, and injection of CO₂ into subsea reservoirs and aquifers. The project achieved significant momentum in 2021 and the ambition is now to provide cost efficient floating CCS infrastructure solutions for a global market, not limited to size or geographical location. In 2020 to 2021, Stella Maris received partial funding from the Norwegian CLIMIT Board, managed by Gassnova, the Norwegian state enterprise to promote technology and competence within CCS.

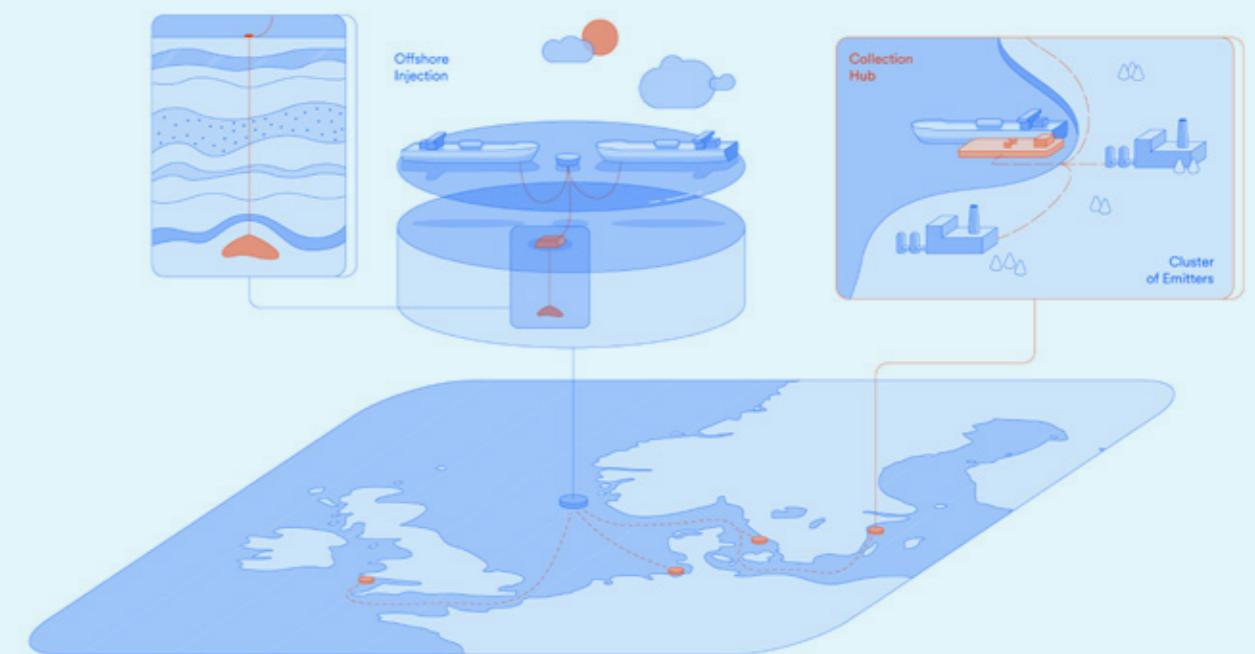
Our performance

While we are working to mature various new venture possibilities in the energy transition outside of our traditional lines of business and now have dedicated resources and budget to support the same, as of 2021 we have not yet made a material capital investment in or generated any revenue from such activities. Our ambition however is to do so in the coming years as made explicit in our latest group strategy.

Stella Maris

The main elements of the Stella Maris project include:

- Floating CO₂ collection, storage and offloading (CCSO) hub located in the proximity of a central cluster of industry, which will allow for the reception and further conditioning of various grades and states of CO₂
- Shuttle tankers with a capacity of 50,000 m³ of liquid CO₂ under low pressure, making the total amount of CO₂ injected up to 10 million tons per year, equivalent to 20% of Norway's carbon emissions
- Offshore offloading system with dual buoys ensuring continuous injection
- Floating pumping station receiving CO₂ from the shuttle tankers and heating and pressurizing CO₂ for injection through a flexible riser
- Dedicated subsea systems, wells, and a suitable saline aquifer for safe and permanent storage of CO₂



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

▶ Altera Mission



Power of our TEAM



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.

Our goals

Our industry is traditionally male dominated. As part of our efforts, we are targeting at least 35% representation for each gender within senior management onshore.

Competition for the talent Altera needs to meet our business and sustainability ambitions is fierce. Going forward, our goal is to keep voluntary turnover of permanent employees below 7.5% annually across our group.

Our actions

The way we work

We attract and retain competent and committed people by offering an empowering and positive working environment. A key part of this is a clear framework for professional development.

In line with our core value of Accountability, each person in Altera is accountable for their own deliveries and for living our TEAM values – trust, excellence, accountability, and momentum. We expect our people to work together to reach our vision and deliver on our promises. We attract and invest in people who share our TEAM values, are committed to our sustainable success, and are committed to learn and adapt to our changing environment. We encourage and promote diversity and equal opportunities across our global organisation.

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 collab-

oration between business units, project teams, and corporate functions.

Leadership

Leaders in Altera are accountable for enhancing the collective organisational capacity to reach our vision for a sustainable future. Our leaders are expected to deliver on agreed goals and provide their people with the support and working conditions they need to meet their accountabilities. Our leaders are role models for our TEAM values.

Our leadership approach follows the LEAD principles – leverage, engage, align, and develop. To ensure clear expectations and common understanding, in 2021, we rolled out a comprehensive package of leadership training to senior management onshore. In March 2022, we extended this same leadership training to our next level of leaders, 84 people in total, to ensure continued focus and leadership practice in accordance with the principles.

The LEAD Principles

Leverage employee potential and foster teamwork, so that the team achieves more together than what otherwise would be possible (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 current role and become ready for new roles. Provide regular coaching.

Training and competence

Training is integral to our safety management and competence management systems. All training objectives and programmes are determined by national, international, regulatory, and industry requirements, and are continuously reviewed, adjusted, and improved. Our employees have a set of training requirements related to their position or role, which are typically organised in a training matrix. Relevant professional development activities can also be included. The matrix is reviewed regularly to ensure that we always have the required skills available at any given time.

In 2021, we provided more than 61,000 hours of health, safety, and environment training, more than 1,000 hours of cybersecurity training and more than 500 hours of compliance and ethics training to our onshore employees and crew. This is less than the approximately 127,000 total hours of training we provided in 2020. The drop is in part a reflection of the extraordinary amount of training we delivered in 2020 and may also be due to the fact that we operated three fewer FPSOs in 2021 than in 2020, as the Petrojarl Banff and Voyageur Spirit FPSOs went off station in 2020 and the Piranema Spirit FPSO went off station in early 2021.

To ensure that our employees reach their full potential, in 2021 we implemented a new accountability planning tool and an effectiveness review tool for personal development. The new tools and associated processes create improved transparency as to individual expectations and performance.

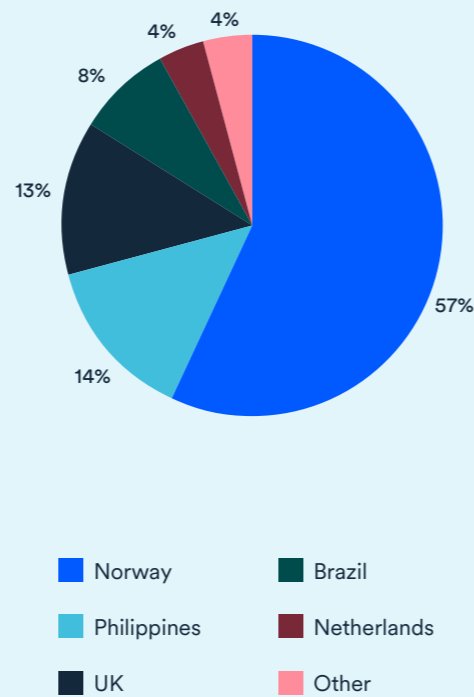
Our performance

Our workforce

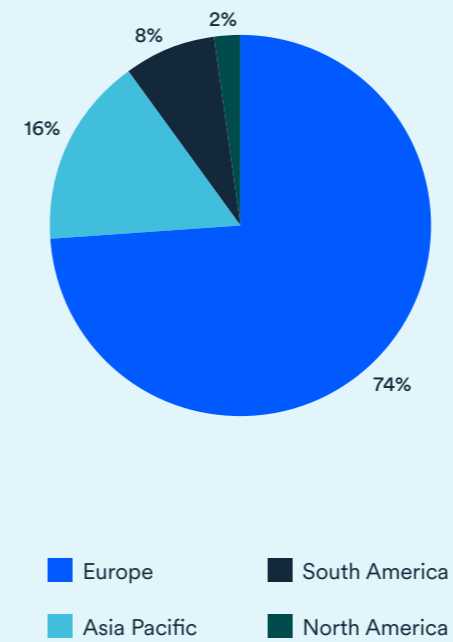
As of the end of 2021, we maintained a workforce of 2,443 people, including 544 colleagues onshore and 1,899 crew members. Overall, 85% of our workforce is employed on a permanent basis.

In 2021, our onshore employees were primarily located in Norway, the Philippines, the UK, and Brazil; overall 74% of our onshore workforce is located in Europe. Our crew come from more than ten countries, with the largest portion also hailing from Norway, the Philippines, the UK, and Brazil. Overall, most of crew hail from Europe (44%) and the Asia Pacific region (37%). We have changed our methodology for collecting information about nationality and region of employment from past years, and as a result do not present historical figures for these data.

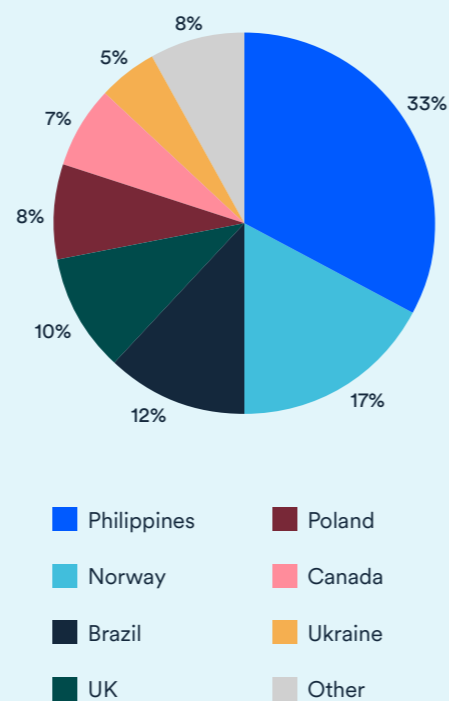
Onshore employment by country



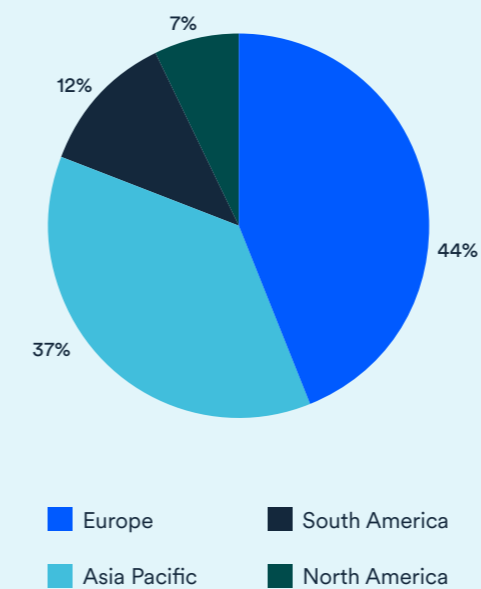
Onshore employment by region



Crew by nationality



Crew nationality by region



Learning for a better future

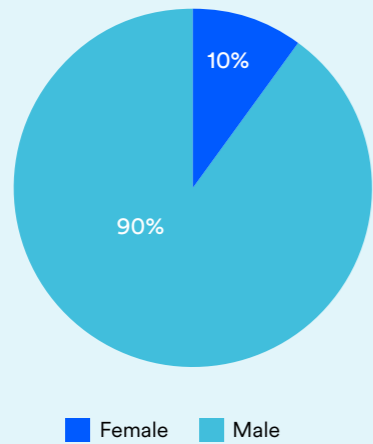
An organisation is only as good as its people. To improve performance, achieve its goals and become robust enough to meet future challenges, it needs to invest in its workforce.

These sentiments echo our own philosophy. Our aim is to align the individual learning and development goals of our people with the future competence needs of Altera. As a step on this journey, Learning Week was arranged for all employees in Norway.

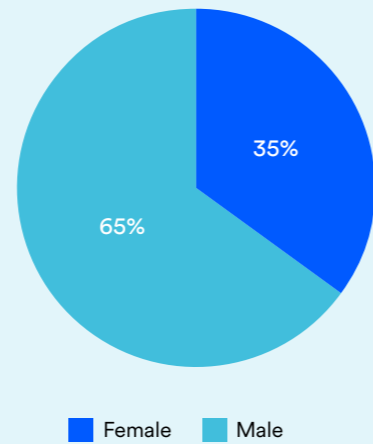
For five days in June, expert speakers presented on a number of topics, including upskilling for the future, digitalisation, market development, culture and communication, psychological safety in organisations, and sustainability. Of note under 'sustainability' was a presentation by DNV on carbon capture, utilisation and storage.

Our hope is that such events and other learning initiatives help foster an inclusive and supportive learning culture for the betterment of our company and our people.

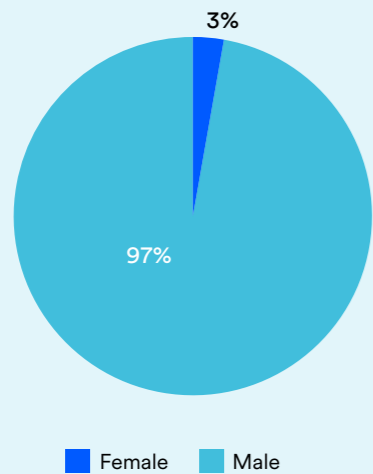
Total workforce by gender



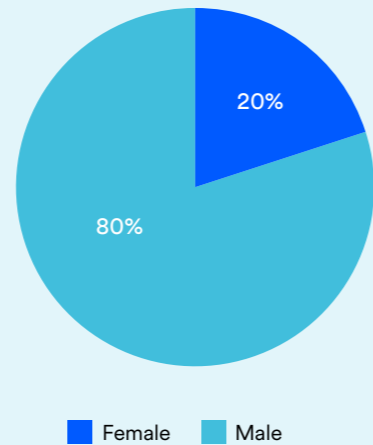
Onshore workforce by gender



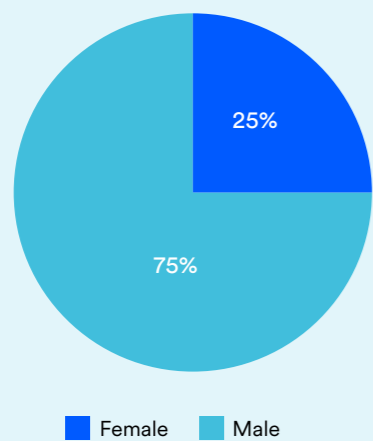
Crew by gender



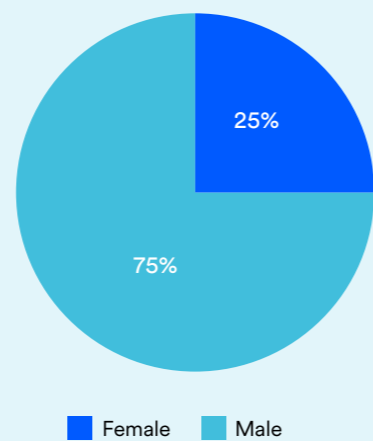
Board of directors by gender



Executive team by gender



Senior management by gender



Gender representation

In 2021, 10% of our overall workforce was female, down marginally from 2020. This small share reflects that our industry, particularly offshore and aboard vessels, is heavily male-dominated – only 3% of our crew, and less than 1% of our senior crew in 2021 was female. In contrast, women make up 35% of our onshore employees, 25% of both our executive team and senior management team, and 20% of our board. As part of our efforts, we are targeting at least 35% representation for each gender within senior management. We plan to achieve this target through active talent development and by using individual development plans and continuous monitoring of progress.

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

Retaining talent

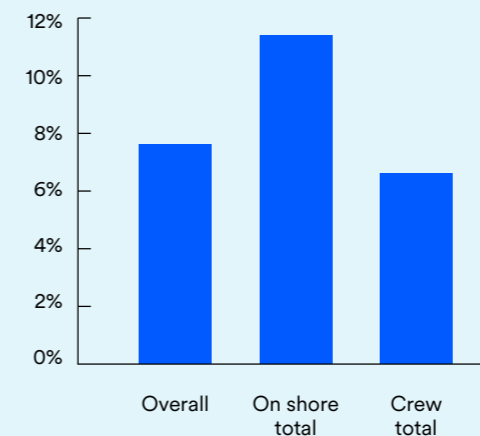
The size and turnover of our workforce is closely related to the number and duration of contracts for our vessels, and our capacity to secure new placements for affected crew on other of our vessels. Because contract terminations is tied in part to market forces and client considerations outside our control, we look to our rate of voluntary turnover as a measure of the strength and engagement of our workforce. Voluntary turnover is calculated as the total number of voluntary

departures of permanent employees divided by the total number voluntary employees and presents a snapshot picture of the rate at which people choose to leave an organisation.

The market for talent in our industry was strong in 2021 and, as a result, we saw higher rates of voluntary turnover amongst permanent employees than we would like, particularly onshore. Our overall voluntary turnover rate for the year was 7.6%, reflecting a rate of 11.4% for our onshore workforce, and 6.6% for crew across our three business lines.

We have set a recurring annual target to keep voluntary turnover for the group overall below 7.5%. Turnover rates in our industry vary greatly across and location and between onshore and crew positions. Based on our actual turnover rate, a tight post-pandemic labour market, and a challenging situation within some of Altera's business segments, this goal may be ambitious in the near-to mid-term. 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.

Rate of voluntary turnover in 2021, group-wide



Safe and clean 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 of our business lines maintains a management system certified for ISO 9001 (quality management), ISO 14001 (environmental management), and ISO 45001 (occupational health and safety).

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

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.

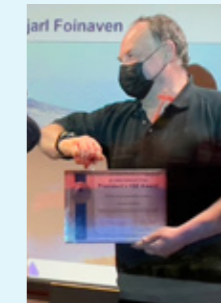
Managing the impact of Covid

In 2021, as in 2020, we concentrated on preventing the spread of COVID-19 onboard our vessels and in our offices with protective measures, protocols, and guidelines.

Our main focus was and continues to be protecting our employees against infection and we established new ways of working to do so. One example was conducting more audits remotely using livestreaming, without travelling to the vessels. Remote audits were conducted across our fleets in 2021.

Altera Production President HSE Award

The four pillars of health, safety, environmental protection and quality are placed first and foremost in our operations. We are vigilant and are always looking for ways to improve. It's only fitting therefore, that we reward our employees when they achieve the remarkable or show exceptional initiative. In 2021, we were proud to present our President HSEQ Award to two of the Altera Production team:



Thomas McIntosh, crane operator on Petrojarl Foinaven, for identifying deficiencies in recently recertified escape hoods, which not only positively impacts his vessel, but will help to improve safety across the wider industry.



Suelen Santos, medic onboard Piranema Spirit, for her 'Box of Share' initiative. This is an anonymous way of sharing feelings about family, friends and coworkers, and provides an opportunity of giving positive feedback to others working onboard.

Our business lines established local Covid-19 committees, reporting to an overarching central committee, to establish and align preventative policies, protocols, instructions, and guidelines, to manage emergency situations, and to respond to ad hoc queries. We also undertook several initiatives to offer vaccination to our crew members in areas where access to vaccines is limited.

Our office staff continued to work from home throughout most of 2021. To ensure healthy and safe

home-office working conditions, we provided office personnel with equipment, such as monitors.

The pandemic and the measures taken to combat it – including long isolation and quarantine periods, extended rotas, and abrupt and changing travel restrictions – have placed a great strain on our people, particularly our crews and our onshore crewing teams. And yet, our operations continued uninterrupted. Our people demonstrated admirable flexibility, resilience, and positivity and despite the myriad challenges successfully led Altera through the second year of the pandemic.

Emergency preparedness

To ensure we are prepared to respond to any emergency, we maintain rigorous emergency preparedness procedures for all our business lines and onshore office locations and regularly train our emergency response teams on these procedures. The same tools and processes for handling emergency response situations implemented for our fleet of FPSOs and shuttle tankers are also implemented for the Altera & Ocyan joint venture fleet of FPSOs in Brazil.

Since the Covid-19 pandemic started in 2020, our emergency preparedness procedures have included Covid-related exercises and routines for handling emergency scenarios from home offices.

Our performance

In 2021, we had no serious safety incidents, no serious or critical gas leaks, and no accidents with major accident hazard potential. We also marked significant

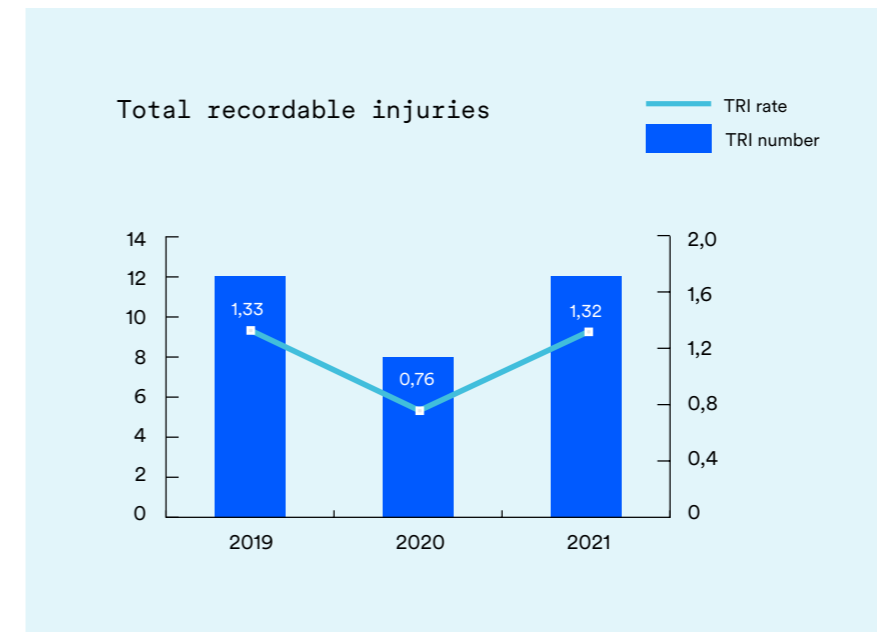
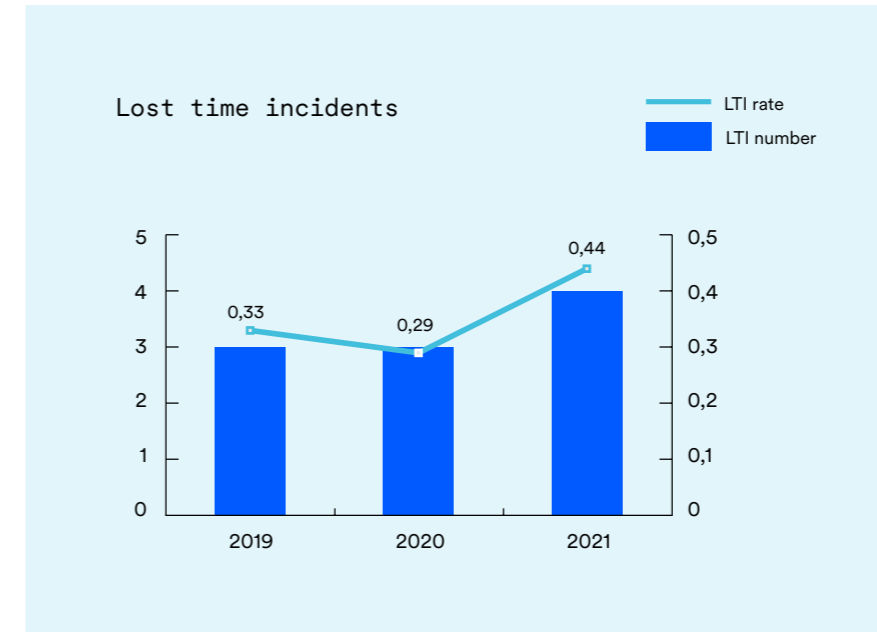
lost time incident (LTI)-free milestones aboard many of our vessels, including the remarkable feats of the Suksan Salamander FSO and Petronordic shuttle tanker operating for 18 and 19 years, respectively, without a single LTI.

Despite these achievements, we did see a slight increase in the number and frequency of lost time incidents (LTIs) and total reportable injuries (TRIs) across our group, as well as a small uptick in our LTI and TRI rates, which measure the number of LTIs and TRIs per million man hours.

The Petrojarl Foinaven FPSO in the UK sector undertook a major upgrade over a period of six months at field offshore in 2021, and half of all our LTIs and TRIs occurred onboard during the upgrade. All incidents were investigated in accordance with procedures, and campaigns initiated to strengthen risk awareness for crew and third parties onboard.

Proactive reporting of HSE ideas was high across our FPSO fleet in 2021, and we also implemented risk awareness campaigns based on the International Association of Oil and Gas Producers (IOGP) Life Saving Rules.

Hydrocarbon gas leaks from an FPSO can have serious safety consequences. In 2021, for the first time in 10 years, we recorded no gas leaks above 0.1 kg/s across our FPSO fleet. This success is a result of a series of ongoing campaigns over the past several years aimed at preventing gas leaks.



LTI-free milestones in 2021

1 to 4 years	5 to 8 years	9 to 12 years	> 12 years
12 vessels	8 vessels	4 vessels	2 vessels

Gas leaks

	2021	2020	2019
Gas leaks (>0.1 kg/s)	0	1	1



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 up-to-date 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, to properly segregate and recycle our waste where possible, and to otherwise dispose of the waste we generate in a responsible manner.

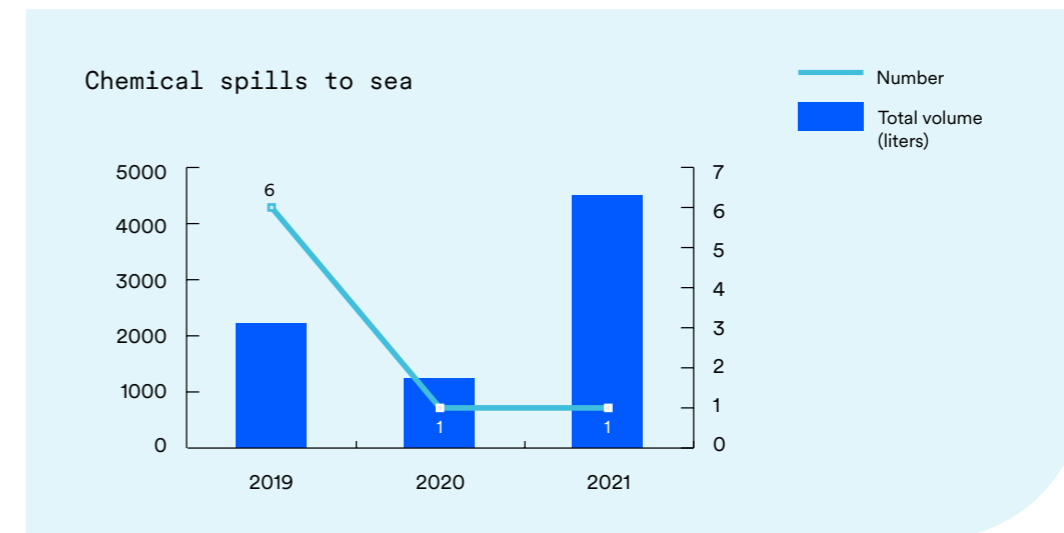
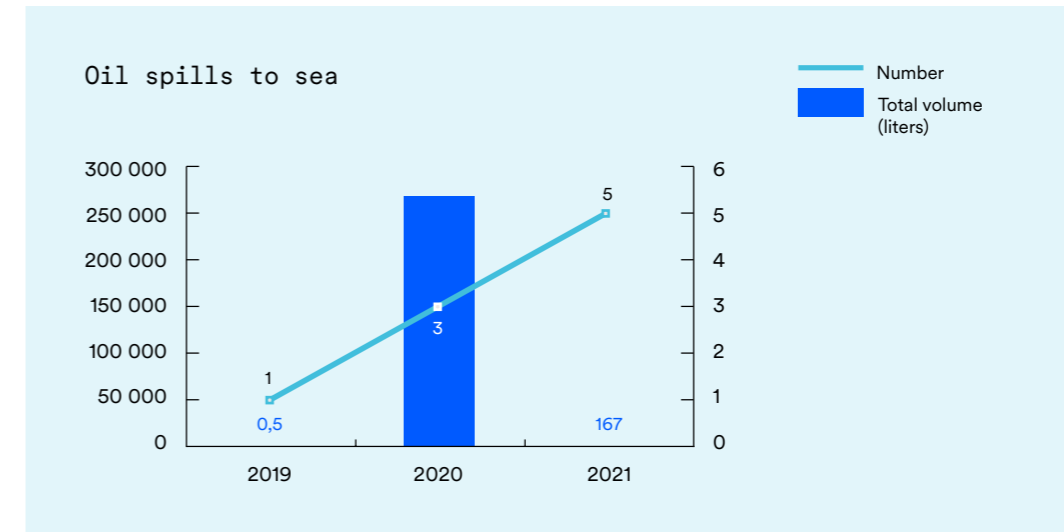
Cutting plastics

We are acutely aware of the rapid increase of plastics

in the world's oceans and are working to reduce our plastic use. We use filters to refine drinking water on our towing vessels, saving 70,000 single-use bottles annually. Similar initiatives are implemented across our other fleets – reusable drinking bottles are now widely used instead of single-use bottles. Single-use cutlery, cups, and shoe covers are now either banned or considerably reduced. Just by removing single-use plastic shoe covers from our FPSOs, we save an estimated 78,000 pairs per year for each vessel. The most significant type of single use plastic onboard many of our vessels is packaging for the goods that are delivered, and we are working to reduce this as well, for example by engaging directly with key vendors.

Ballast water management

The transfer of invasive marine species through ships' ballast water is of major ecological concern, which is why the IMO has implemented the strict Ballast



Water Management Convention. We use tailored technology specific to each vessel type to ensure compliance with this treaty. 90% of our towage vessels and 92% of our shuttle tanker fleet implements ballast water treatment systems.

Setting VOC-reduction standards

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.

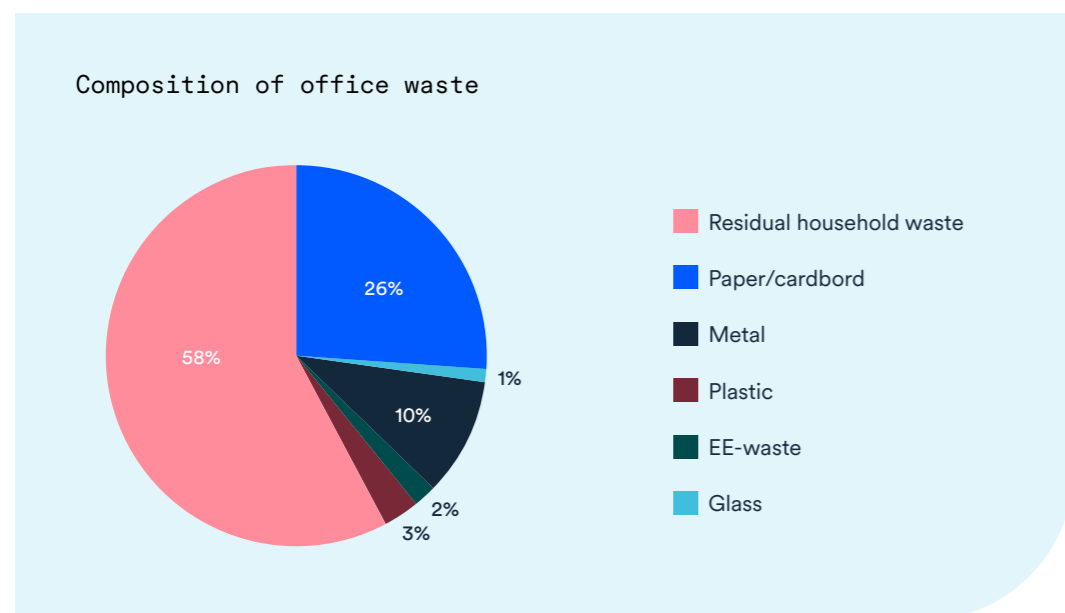
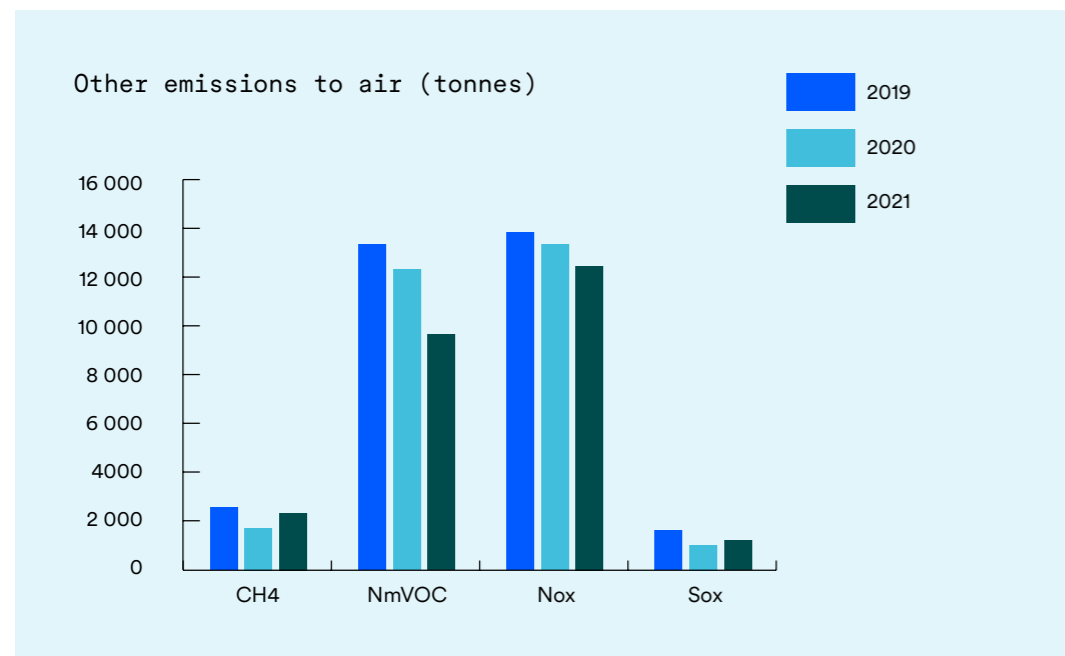
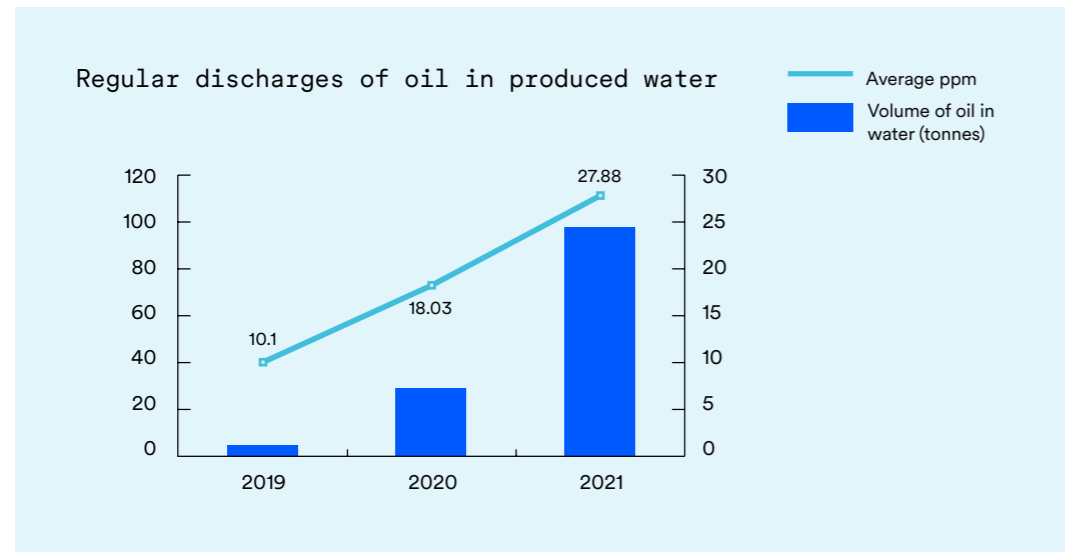
The NMVOC emission limit on the Norwegian Continental Shelf (NCS), established in 2002, drove the formation of the VOC Industry Cooperation (VOCIC), which consists of all NCS field license owners using shuttle tankers to transport crude oil. This group

collectively invests in onboard VOC reduction technologies and reports its members' NMVOC emissions to the Norwegian Environment Agency.

We have 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 \$500 million on VOC reductions.

Our performance

In 2021, we experienced 5 accidental spills of oil to the sea of any volume with an aggregate volume of 167 litres. Of these, two were minor spills occurring from FPSO vessels, and two minor spills from shuttle tankers. One spill of 150 litres occurred from



a towage vessel after an equipment failure resulted in environment accepted lubricant (lube oil) leaking out to sea. In each case, we responded to and investigated the spill in accordance with our internal procedures.

We experienced one accidental spill of chemicals 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 separated. As the actual volume of chemicals discharged to sea is unknown, we have reported the maximum potential volume of 4,500 litres.

As reflected in the historic data presented in this report, 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 in our fleet, to prevent this type of leak from happening again.

Operation of our FPSO vessels results in produced water as a by-product of oil production. We closely monitor the proportion and amount of oil in the discharge of this produced water. In 2021, the average oil content of operational discharges to sea from our FPSO vessels was 27.88 parts per million, a marked increase from 18.31 in 2020. There are two main reasons for this increase. First, our produced water from our Petrojarl Foinaven FPSO had high oil in water content on its last months of production

in 2021, which pulled up the average oil content across the fleet. Second, because we operated fewer FPSOs in 2021 as compared to 2020, we have fewer operating vessels from which to calculate the fleet average. The total volume of oil discharged with produced water increased from 29.6 tonnes in 2020 to 98.17 tonnes in 2021 because well conditions on the Knarr oilfield (on which the Petrojarl Knarr FPSO operated) did not allow for reinjection of water, which lead to a bigger volume of produced water going overboard.

In 2021, vessels in our Altera Shuttle and Storage business line – shuttle tankers, FSOs, and our UMS – generated 2,802 cubic meters of waste, and ALP Maritime Services towage vessels generated 2,873 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, and did not generate any hazardous waste in 2021.

Our FPSOs measure waste in tonnes, rather than square meters, and so we track and report waste from these vessels separately. In 2021, our FPSO generated 606 tons of waste, 31% of which was classified as hazardous. All such hazardous waste was handled according to both internal procedures and applicable law.

We have also taken steps to improve tracking of waste generated from our onshore offices. In 2021, our offices generated 16,629 kilograms of waste. We recycled 42% of this waste and will focus on increasing our recycling rate going forward.

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 communicate our Code of Conduct and supporting requirements extensively internally and require our board members and employees to confirm their commitment to the Code of Conduct in writing annually in connection with annual Code of Conduct training. As our vessels operate all over the world, we rely on a vast global network of suppliers to support our operations. Therefore, our Code of Conduct is further available to our stakeholders on our website and is incorporated by reference in our general terms and conditions.

We rely on a proven set of tools to integrate business ethics and compliance into our decision-making, including:

- 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
- A rigorous risk-based due diligence process for potential suppliers, customers, and counterparties fully integrated with our master financial system
- Regular sanctions and restricted-party screenings of suppliers and customers
- Compliance review of proposed business transactions
- Mandatory annual compliance training for governance board members, employees, and contract staff and additional targeted training for those with the higher exposure to compliance risks
- Hospitality and conflict of interest disclosure and approval requirements

Labour and human rights

We believe everyone is 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 we report annually in accordance with the UK Modern Slavery Act.

In 2021, we undertook a comprehensive human rights impact assessment of our global operations to confirm and clarify the areas in our supply and value chains

that present the highest potential risks to fundamental human rights. In 2022, we will finalise this work and use the outcome to assess the strength of our existing human rights due diligence procedures and to guide additional action, as necessary in line with the forthcoming Norwegian Transparency Act and the EU's proposed directive on corporate sustainability due diligence.

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 in 2021 we joined the Maritime Anti-Corruption Network (MACN) to further support these efforts. We also maintain specific onboard procedures to guide our vessel crew to manage and resist such requests.

Maritime Anti-Corruption Network

The Maritime Anti-Corruption Network (MACN) is a global business network working towards the vision of a maritime industry free of corruption that enables fair trade to the benefit of society at large. Established in 2011 by a small group of committed maritime companies, MACN has grown to include over 165 companies globally, and has become one of the pre-eminent examples of collective action to tackle corruption.

MACN and its members work 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.



Reporting concerns

We encourage anyone with concerns about potential misconduct in connection with 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 2021 Code of Conduct training covered anti-corruption, the appropriate exchange of gifts and hospitality, and management of conflicts of interest. The training was completed by 100% of our board, 100% of our onshore employees and 98% of assigned crew. In addition, we delivered more than 150 hours of targeted compliance and ethics training to relevant employees in our offices around the world.

In 2021, we recorded two instances where a small number of cartons of cigarettes were provided to shore-side authorities from our vessels. The average value of the cartons provided was approximately USD 170. In 2020, we recorded three such incidents with an average value of approximately USD 90 each. Given the very small number of recorded incidents, we do not believe it is possible to draw conclusions about any trend reflected in these numbers. All incidents have been booked accurately and transparently in our records and handled in line with internal procedures.

We did not receive, nor were we the target of any complaints regarding personal-data handling in 2021, 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 2021. Nor did we receive any significant fines or non-monetary sanctions for non-compliance with laws or regulations.

In 2021, we received six reports of alleged misconduct in our operations, either directly through our Reporting Hotline or via internal channels. All were handled in accordance with internal procedures.

Although we planned to design and undertake focused monitoring procedures to test the strength of our compliance practices within 2021, we revised our workplan to do so in 2022 instead.

Cyber security

The marine and offshore industries have become increasingly exposed to cyber-attacks in recent years. Rapid digitalisation and increased systems integration improves operating efficiency but also provides a broader attack surface for bad actors. We view cybersecurity not only as a technology issue, but as a management and operational challenge. Our approach to cybersecurity is a combination of people, process, and technology.

We actively work to manage these 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.

As nearly all cybersecurity breaches are caused by human error, we focus on training and awareness campaigns for our employees about the risks and implications of cybersecurity threats. We train our onshore employees and crew via videos and material distributed regularly, and we include cybersecurity on the agenda for management and operational meetings.

Our performance

In 2021 Altera regularly provided Cybersecurity training to all onshore and offshore employees. Phishing campaigns have been sent out to employees, and the result has been communicated and followed up by management. We did not experience any major cybersecurity breaches in 2021.

Responsible recycling

Our preferred option when one of our vessels reaches the end of its commercial life for Altera 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.

To ensure compliance with all applicable rules and regulations and with the commitments of our Global Asset Recycling Policy, and to minimise health and environmental risk, our dedicated staff with expertise in ship recycling oversee the entire recycling process until the very last part of the vessel has been dismantled.

As part of our follow-up work, we are working with the SRFs to collectively learn and share competence with the aim of continuously improving relevant practices. Through active participation in industry forums and our membership in the Ship Recycling Transparency Initiative (SRTI), we are promoting responsible ship recycling practices on an industry level.

We have close working relationships with top tier SRFs in India, Turkey and Norway.

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.

Our performance

In 2021, we initiated recycling projects for three vessels – two shuttle tankers and one FSO – and our Hi-load DP mobile offshore support unit. Two of these recycling projects are completed and two remain ongoing.

Recycling projects in 2021

Vessel	Vessel type	Recycling Location	Project Start	Project Status
Dampier Spirit	FSO	Turkey	April 2021	Complete
Navion Oslo	Shuttle tanker	Turkey	July 2021	Complete
Hi-Load DP	Mobile offshore support unit	Norway	October 2021	Ongoing
Navion Stavanger	Shuttle tanker	India	December 2021	Ongoing

Giving back

We deeply appreciate the support of the local communities where we operate and recognise their part in our success. As a way of showing that we take our communal responsibility seriously and to say “thank you”, we became involved in a number of community projects during 2021.

Whether it was raising funds for good causes, donating to those in need or helping to improve local environments, we made a positive impact in a number of ways:

- Helping young Brazilians from less-developed areas realise opportunities for better futures by partnering with Dream Learn Work (see page 66)
- Purchasing kit and equipment for local sports teams
- Sponsoring the Altera TEAM Award at the Marine Institute of the Memorial University of Newfoundland, Canada, which provides a scholarship for a full-time student enrolled in the nautical science or marine engineering programmes
- Organising beach-cleaning days for our Trondheim and Stavanger offices (see page 65)
- Donating Christmas presents for underprivileged children in Aberdeen
- Helping the Aberdeen-based charity Instant Neighbour in its Christmas-gift drive.

A darn good yarn

Knitting for a warmer society is a project run by Norway’s Church City Mission.

In the autumn, keen knitters from our Trondheim and Stavanger offices joined the initiative to produce scarves, hats, mittens and socks for those in challenging situations – particularly the homeless – facing a hard winter. Knitted using Altera-sponsored yarn in the Mission’s distinctive orange colour, these woolen accessories were donated and distributed among those who needed them most.



Collecting for the environment

We are all aware of the shocking impact waste has on marine life. Even though only an estimated 15% of ocean waste ends up on our beaches, removing it prevents it reentering the water and improves the local environment.

For the second year running, we organised local beach cleanups for our Trondheim and Stavanger offices. One hundred people – staff with family and friends – met and cleared over two kilometres of beach, breaking for a communal lunch before resuming work. In total, over 200 kg of rubbish was collected and disposed of safely. Plastic was the main culprit, although paper products, metal and even tyres were also found. In Trondheim, participants were met with a surprise at the end of the event. Read more on page 66.



Bring on the clowns

This is exactly what we did at the end of our beach cleanup day in Trondheim, courtesy of the Norway-based Flying Seagulls.

Clowns, laughter and magic were all ingredients to bring happiness and positivity to the occasion. More importantly, our donation will be used to bring laughter to children who need it most. The Flying Seagulls is a voluntary organisation of clowns, musicians, acrobats and actors who provide fun and laughter for people in difficult situations. From refugee camps and asylum centres to children's homes and special needs schools, the Flying Seagulls have made a difference to children and young people in 23 countries across four continents. Long may it continue.



CALEBE PEREIRA (19) - DLW PARTICIPANT
 "The DLW Mentor Project during the Pandemic has been great! It is still very dynamic and helps me develop more as a person both in the work environment and outside. Our meetings are being held once a week, lasting 1 hour."

A brighter future awaits young Brazilians

Dream Learn Work (DLW) is a non-profit organisation created by Norwegian companies to help young Brazilians from less-developed areas realise opportunities for a better future through education and employment. We partner with DLW by sponsoring activities and giving our time teaching and mentoring students.

DLW's philosophy is based on the three constructs of dreaming, learning and working. Dreaming allows young people to envision a positive and achievable future. Learning through sponsored courses and workshops with individual follow-up keeps participants engaged and motivated. Finally, students are guided into work through CV-building workshops, assisted job search, interview training, mentoring programmes and networking.

Since its start in 2006, DLW has helped over a thousand students and their families in disadvantaged areas of Rio de Janeiro. Students who start courses tend to finish. A full 97% go on to complete their education with roughly 65% moving into work afterwards.

The pandemic has impacted the programme, pushing more activities online. In 2021, students have enjoyed online classes at school and university levels, webinars, workshops and weekly mentoring sessions. DLW has also helped the 140-plus students and their families outside of the classroom by distributing food boxes, Easter eggs and Christmas gifts. One DLW participant, Calebe Pereira (19), says: The DLW mentor project during the pandemic has been great! It is still very dynamic and helps me develop more as a person, both in the work environment and outside."

Fleet information

Number of vessels owned (in part or in full) or operated during 2021. Does not include additional shuttle tanker Altera Thule, which was under construction in 2021 and delivered in 2022.

Shuttle tanker vessels

	Capacity (dwt)	Year 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	
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	
Stena Natalita	198 199	2001	50%	North Sea	Sold in June 2021
Navion Oslo	100 300	2001	100%	North Sea	Recycled in July 2021
Navion Oceania	126 400	1999	100%	North Sea	Sold in June 2021
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	
Navion Stavanger	148 700	2003	100%	Brazil	Operated by a third party for the duration of 2021; recycled in December 2021
Beothuk Spirit	148 200	2017	100%	Canada	
Norse Spirit	148 200	2017	100%	Canada	
Dorset Spirit	148 200	2018	100%	Canada	
Navion Gothenburg	152 200	2006	50%	Far-East Spot	Operated by a third party for a portion of 2021
Nordic Brasilia	151 300	2004	100%	Far-East Spot	Operated by a third party for the duration of 2021
Nordic Rio	151 300	2004	50%	Far-East Spot	Operated by a third party for the duration of 2021
Aurora Spirit	129 830	2020	100%	North Sea	
Rainbow Spirit	129 830	2020	100%	North Sea	
Current Spirit	129 830	2020	100%	North Sea	

FPSO vessels

	Production capacity (bbl oil per day)	Year built	Ownership	Field Name and Location	Notes
Petrojarl Knarr	63 000	2014	100%	Knarr, Norway	
Pioneiro de Libra	50 000	2017	50%	Mero/Libra, Brazil	Operated by Altera & Ocyan; GHG emissions reported based on 50% equity share
Cidade de Itajai	80 000	2012	50%	Bauna and Piracaba, Brazil	Operated by Altera & Ocyan; GHG emissions reported based on 50% equity share
Petrojarl Foinaven	140 000	1996	0%	Foinaven, UK	Operated by Altera for Teekay Corporation
Sevan Hummingbird	25 000	2007	0%	Chesnut, UK	Operated by Altera for Teekay Corporation
Petrojarl I	30 000	1986	100%	Atlanta, Brazil	
Piranema Spirit	25 000	2007	100%	Lay-up	
Petrojarl Varg	57 000	1998	100%	Lay-up	Sold in 2022
Voyageur Spirit	30 000	2008	100%	Lay-up	

FSO vessels

	Capacity (dwt)	Year built	Ownership	Field Name and Location	Notes
Rangrid	124 500	1995	100%	Gina Krog, Norway	
Suksan Salamander	78 200	1993	100%	Bualuang, Thailand	
Dampier Spirit	106 700	1987	100%	Lay-up	Recycled in April 2021; fully included in reporting up to that date
Falcon Spirit	124 000	1986	100%	Al Rayyan, Qatar	

UMS units

	Beds	Year built	Ownership	Location	Notes
Arendal Spirit	500	2015	100%	Lay-up	

Ocean towage vessels

	Bollard Pull (tonnes)	Year built	Ownership	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	
ALP Ace	192	2006	100%	Worldwide	

Summary table

nr = not reported

	2021	2020	2019	Notes
Economic and operational data				
Revenue				
Total revenue (thousands USD)	1 151 260	1 182 110	1 252 938	Financial data is taken from the audited financial report of Altera Infrastructure L.P., which is available at alterainfra.com.
Net income (loss) (thousands USD)	(136 450)	(346 163)	(159 067)	
Total production (bbl o.e)	27 550 676	28 345 477	16 562 442	Oil and gas production. Only relevant for FPSO vessels. Production from joint ventures is based on equity share.
Economic and operational data				
GHG emissions intensity				
Emissions per revenue (tCO ₂ e/million USD)	1 242	1 440	1 605	Calculation on the basis of total GHG emissions (Scope 1, 2, and 3); GHG emissions and revenue from joint ventures are based on equity share.
Emissions per barrel produced, fleet average (tCO ₂ e/bbl o.e)	0,033	0,033	0,044	Only relevant for FPSO vessels; calculated on the basis of total GHG emissions (Scope 1, 2, and 3) generated by all FPSOs; GHG emissions and revenue from joint ventures are based on equity share.
Emissions per barrel produced, producing FPSOs (tCO ₂ e/bbl o.e)	0,030	nr	nr	Only relevant for producing FPSO vessels; calculated on the basis of Scope 1 emissions generated by producing FPSOs; GHG emissions and revenue from joint ventures are based on equity share.
Average annual efficiency ratio (AER) (gCO ₂ /dwt-nm)	6,61	7,14	7,50	Only relevant for shuttle tankers; shuttle tanker fleet average.
Average energy efficiency operational indicator (EEOI) (gCO ₂ /tm)	18,30	20,7	23,3	Only relevant for shuttle tankers; shuttle tanker fleet average.
GHG emissions – total				
Total (tCO ₂ e)	1 592 906	1 892 724	2 224 576	Sum total of Scope 1, Scope 2, and Scope 3 (as reported). GHG emissions from joint ventures based on equity share.
GHG emissions – Scope 1				
Total – Scope 1 (tCO ₂ e)	1 195 739	1 595 949	1 895 536	
FPSOs	447 716	878 214	1 117 083	Emissions from joint ventures are based on equity share.
Shuttle tankers	523 828	556 475	507 087	
FSOS	23 690	26 409	40 581	
UMS	130	0	0	
Towage vessels	200 375	134 852	230 785	
GHG emissions – Scope 2				
Total – Scope 2 (tCO ₂ e)	719	209	237	
Offices	121	4	nr	Does not include offices in Philippines and Singapore, as data was not available.
Warehouses	1	3	nr	
Vessels at dock/repair	597	202	237	
ALP/Towage	22	nr	nr	
FSO	0	nr	nr	
Shuttle	176	nr	nr	
FPSO	300	202	237	
UMS	98	nr	nr	

nr = not reported

	2021	2020	2019	Notes
GHG emissions – Scope 3				
Total – Scope 3 (tCO ₂ e)	396 448	296 566	369 384	
Flights	24 633	7 385	nr	
Hotel stay	208	1 124	nr	
Km remuneration	91	65	nr	
Waste	47 666	10 225	63 487	GHG emissions generated from the transport of waste and emissions related to landfill.
Upstream production of fuels	192 733	201 621	234 147	Calculated emissions from the upstream production of Alteras Scope 1 fuels (Well-To-Tank).
Transport of goods	1 206	nr	nr	Transport of goods by air, road and sea.
Purchased helicopter transportation	29	nr	nr	
Use of Leased assets	23 353	nr	nr	
Use of Non-operated asset	106 529	76 145	71 750	
Other emissions to air				
CH ₄ (tonnes)	2 347	2 068	2 345	
NmVOC ² (tonne)	9 656	12 723	9 839	
NO _x (tonnes)	12 523	15 509	15 728	
SO _x (tonnes)	1 229	1 238	2 724	
Fuel consumption (GJ)				
Total fuel consumption	498 777 912	655 282 585	878 540 271	
Diesel	1 344 331	2 372 315	2 526 447	
Fuel gas	488 184 104	643 630 522	866 511 228	
HFO	1 565 718	203 620	3 938 550	
IFO	0	1 386 744	0	
LNG	646 917	237 217	0	
MDO	225 619	126 175	5 036 082	
MGO	6 810 891	7 325 953	527 964	
Petrol	333	41	0	
Flaring³				
Flare gas (Sm ³)	15 519 834	23 814 989	33 886 000	Only relevant for FPSO vessels.
Accidental discharges to sea				
Chemical spills (number)	1	1	6	
Chemical spills, volume (liter)	4 500	1 241	2 224	
Oil spills (number)	5	3	1	
Oil spills, volume (liter)	206	268 003	1	
Regular discharge to sea				
Oil in water (tonnes)	98,2	29,6	5,0	Only relevant for FPSO vessels.
Oil in water (average ppm)	27,9	18,3	10,1	Only relevant for FPSO vessels.

nr = not reported

	2021	2020	2019	Notes
Waste generation				
FPSOs (tonnes)	606	nr	nr	
Hazardous (%)	31	nr	nr	Only relevant for FPSO vessels.
Shuttle tankers (m ³)	2 634	nr	nr	
FSOs (m ³)	168	nr	nr	
UMS (m ³)	0	nr	nr	
Towage vessels (m ³)	2 873	nr	nr	
Offices (kg)	16 629	nr	nr	
Recycled (%)	42	nr	nr	
Social data				
Workforce – overall				
Total workforce ^a	2443	2 663	2 304	
Onshore	544	nr	nr	
Crew	1 899	nr	nr	
Representation of women				
Board of directors (%)	20	20	0	
Total workforce (%)	10	12	10	
Onshore (%)	35	38	34	
Crew (%)	3	2	3	
Executive team (%)	25	nr	nr	Chief executive officer, chief financial officer, general counsel, heads of Altera business lines, and heads of corporate units.
Senior management onshore (%)	25	nr	nr	Roles reporting to a member of the executive team.
Senior crew ranks (%)	<1	nr	nr	
Employment contract				
Permanent employees	2 068	2 296	1 950	
Women (%)	11	11	10	
Temporary employees	375	367	364	
Women (%)	6	18	15	
Full-time employees – onshore	543	nr	nr	
Women (%)	35	nr	nr	
Part-time employees – onshore	1	nr	nr	
Women (%)	100	nr	nr	
Onshore employment by region				
Europe (%)	74	nr	nr	
Asia Pacific (%)	16	nr	nr	
South America (%)	13	nr	nr	
North America (%)	1	nr	nr	
Africa and Middle East (%)	0	nr	nr	

nr = not reported

	2021	2020	2019	Notes
Crew nationality by region				
Europe (%)	44	nr	nr	
Asia Pacific (%)	37	nr	nr	
South America (%)	12	nr	nr	
North America (%)	7	nr	nr	
Africa and Middle East (%)	0	nr	nr	
Voluntary turnover				
Overall rate (%)	7,6	nr	nr	Voluntary turnover is calculated as the total number of voluntary departures of permanent employees divided by the total number voluntary employees.
Onshore rate (%)	11,4	2,7	2,5	Historic data is presented as an average on onshore voluntary turnover rates for all Altera business lines from prior years.
Crew rate (%)	6,6	nr	nr	
Training				
Total training (hours)	63 140	127 749	13 125	
HSE training	61 542	nr	nr	
Onshore	1 411	nr	nr	
Crew	60 131	nr	nr	
Cybersecurity training	1 095	nr	nr	
Compliance and ethics training	503	nr	nr	
Safety⁵				
Fatalities (number)	0	0	0	
Total recordable injuries (number)	12	8	12	TRI Includes medical treatment injuries and lost time Injuries for both employees and contractors. Does not include first aid cases.
Total recordable injuries (rate)	1,32	0,76	1,33	Rate of TRIs per 1 000 000 man-hours for employees and contractors (on a 24-hour workday basis).
Lost Time Incidents (number of)	4	3	3	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.
Lost Time Incidents (rate)	0,44	0,29	0,33	Rate of LTIs per 1 000 000 man-hours for employees and contractors (on a 24-hour workday basis).

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)	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
Bbl	Barrel	LTI rate	Rate of LTIs per 1 000 000 man-hours for employees and contractors
Bbl o.e	Barrel of oil equivalent	MDO	Marine diesel
CCS	Carbon capture and storage	MGO	Marine gasoil
CO₂e	Carbon dioxide equivalent. The global warming potential of emitted gases as carbon dioxide equivalents.	NCS	Norwegian Continental Shelf
Dwt-nm	Deadweight tonnage per nautical mile	NSA	Norwegian Shipowners' Association
Dwt-tm	Deadweight tonnage per tonne-mile	nmVOC	Non-methane volatile organic compounds
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).	NOx	Nitrogen oxides
ESG	Environment, social, and governance	OIM	Offshore installation manager
FPSO	Floating production, storage and offloading	Produced water	Water that is brought to the surface during operations which extract hydrocarbons from oil and gas reservoirs
FSO	Floating storage and offloading	SASB	Sustainability Accounting Standards Board
GHG	Greenhouse gases	Scope 1	Direct GHG emissions from operations on an ownership equity basis
GHG Protocol	A comprehensive global standardised frameworks to measure and manage GHG emissions from private and public sector operations, value chains and mitigation actions	Scope 2	Indirect GHG emissions associated with the purchase of electricity, steam, heat, or cooling
GRI	Global Reporting Initiative	Scope 3	Other indirect emissions resulting from value chain activities
GWP	Global warming potential	SOx	Sulphur oxides
HCI	High consequence injuries	Spill	Accidental discharge of oil or chemicals to sea
HFO	Heavy fuel oil	SRF	Ship recycling facility
HSE	Health, safety, and environment	SRTI	Sustainable Ship Recycling Initiative
IBC	International Business Council	TCFD	Task Force on Climate-Related Disclosures
IFO	Intermediate fuel oil	tCO₂e	Tonnes (metric tons) of carbon dioxide equivalent
IFRS	International Financial Reporting Standards	TRI	Total recordable injuries. Includes medical treatment injuries and lost time injuries for both employees and contractors. Does not include first aid cases.
IMO	International Maritime Organisation	TRI rate	Rate of TRIs per 1 000 000 man-hours for employees and contractors
KPI	Key performance indicator	UMS	Unit for maintenance and safety
LNG	Liquid natural gas	UN SDGs	United Nations Sustainable Development Goals
LSFO	Low-sulphur fuel oil	VOC	Volatile organic compounds
		VOCIC	VOC Industry Cooperation
		WEF	World Economic Forum

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Design & layout:
Muskat Design



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