



altera
INFRASTRUCTURE

Sustainability Report | 2019

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The world we live in and our global energy markets are changing rapidly. For the offshore energy industry to maintain its relevance far into the future, it needs strong leadership on a global scale, paired with a clear commitment to sustainable solutions.



Ingvild Sæther

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President & Chief Executive Officer
Altera Infrastructure Group Ltd.

We acknowledge that sustainability is directly linked to the long-term success of Altera. Coupled with our strong culture, which is based upon teamwork and innovation, it guides us in making the right choices.

Safety is our first priority - always. However, across our fleets, we experienced three Lost Time Injuries in 2019. Fortunately, all were of a nature that allowed our colleagues to resume work without any permanent impact on their personal well-being. We always investigate the root cause of incidents to find out how we can avoid such events in the future and share the lessons learned across our fleet. As a result, we have seen a steady decrease in our injury rate.

The year 2019 has been important and eventful for us from a business perspective. We have seen Brookfield taking ownership of the remaining Teekay interest in Teekay Offshore, inciting the launch of our new brand name of Altera Infrastructure in early 2020.

On the commercial side, we negotiated a number of contract extensions and awards, while we witnessed the delivery of our first E-Shuttle tanker. At the same time, we had a few ageing vessels leaving the fleet, thus reducing its average age.

As a responsible ship owner, we take full "cradle to grave" accountability for our assets and we have further strengthened our strict audit and inspection regime for the approval of the ship recycling facilities we utilize, beyond the standards set by the Hong Kong Convention. 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.

“ Altera will continue its strong history of developing solutions, business models, and technology that will meet the changing demands of energy infrastructure. Together with our trusted partners and customers we will shape the infrastructure of offshore energy.



Altera supports the Paris accord, and we manage our environmental footprint towards the goal of a zero-emissions industry. Our latest generation of shuttle tankers sets new standards for both fuel consumption and emissions for our industry. The design of these vessels, combined with technological advances, enable us to achieve ground-breaking environmental performance by cutting bunkering requirements and CO₂ emissions in half. Our initiatives have been recognised through Rystad's Green Initiator of the Year, the Seatrade Fuel Efficiency Awards, and the Marine Money Green Finance Award.

The additional investments required for the green profile can be defended through lower operating costs. However, there is still a dilemma in the current

business models with regards to sharing the incremental investments in relation to the lower fuel cost. Finding a solution to this quandary will allow our industry to see a more rapid shift to the next vessel generation.

As we are completing this report, the world is in the throes of the COVID-19 pandemic and major turbulences within the global oil markets. These events are having an impact on all of us. Our priority is to protect our offshore workers and seafarers onboard our assets and we will continue to introduce proactive measures to protect the health and safety of our colleagues, paying special attention to fatigue and mental health.

Altera remains committed to operational excellence, safety, and environmental practices as we continue to create lasting value. In 2020, we will complete the incorporation of UN Sustainable Development Goals (SDGs) into our business strategy, and we will set new ambitious emission targets for our operations.

Together we will lead the industry to a sustainable future.



Raising of the Altera flag on the shuttle tanker Rainbow Spirit.

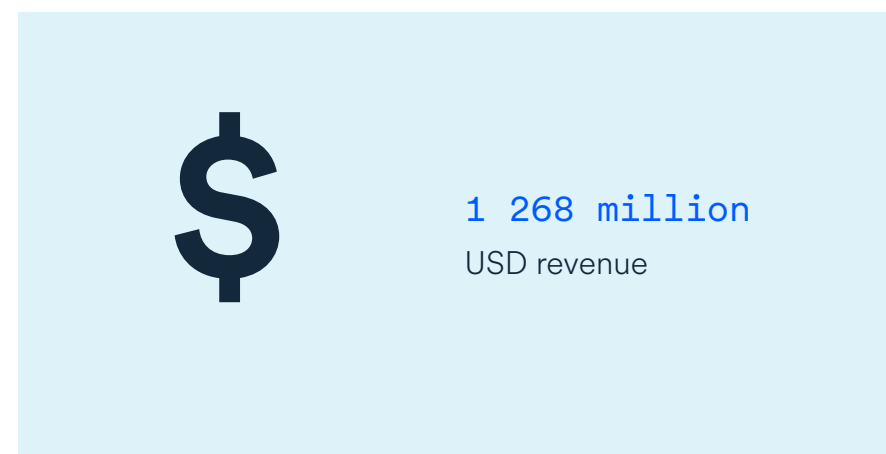
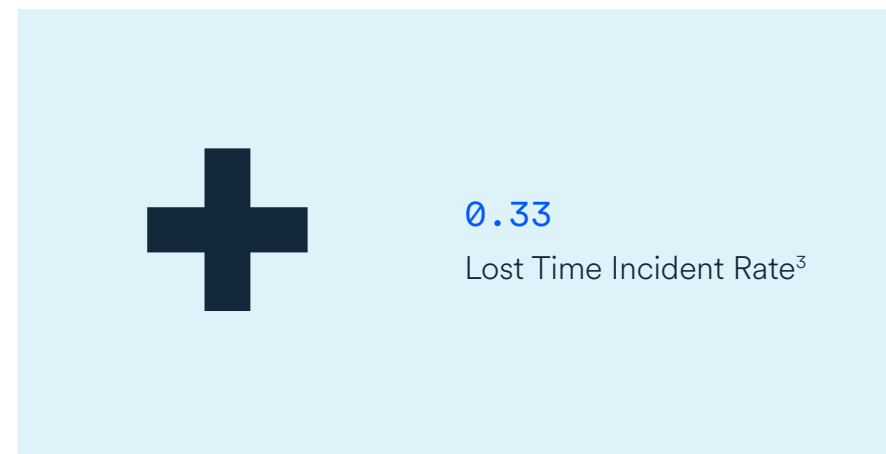
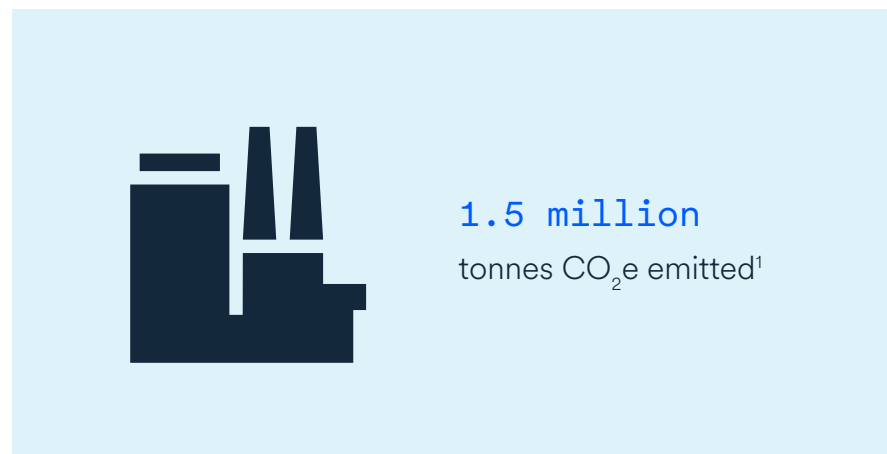
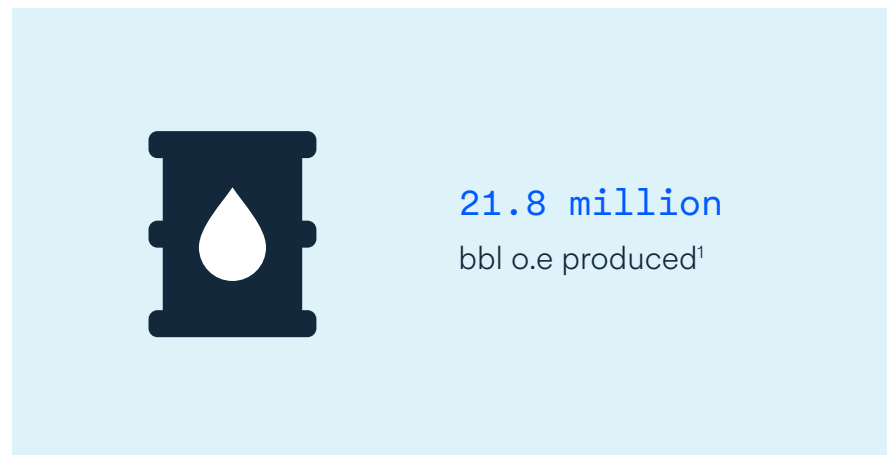
Leading the industry to a sustainable future

► Altera Vision



Sustainability performance at a glance

Notes
1 - Ownership equity basis
2 - Shuttle tankers only
3 - Per million man-hours
4 - CO₂e emissions from FPSOs only





About the report

This report contains disclosures from Global Reporting Initiative (GRI) Standards. It has been prepared using the Norwegian Shipowners' Association's ESG reporting guidelines and is inspired by the recommendations from the Task Force on Climate-related Financial Disclosures.

Reporting boundaries

Altera Infrastructure (Altera) strives to be consistent and transparent about the scope of our reporting and provides a complete reporting in line with industry practice and our stakeholder's expectations.

Currently we only report on Scope 1 GHG emissions, according to the GHG protocol. GHG emissions are reported on an ownership equity basis and includes joint ventures. Workforce and safety information, including HSE related metrics, are reported on an operational control basis. The report includes the business units Altera Production, Altera Shuttle and Storage, and ALP Maritime Services BV, as well as corporate resources.

Economic data is reported on an equity basis unless otherwise stated.

Material sustainability topics and stakeholder dialogue

This report focuses on the sustainability issues that significantly affect business performance and matter most to our key stakeholders. Altera has completed a mapping of sustainability issues material for our group of companies, and the success of our stakeholders.

Our key stakeholders include employees, customers, owners, business partners, key suppliers, regulators and the local communities in which we operate. We strive to maintain a regular dialogue with our key stakeholders throughout the year, which is undertaken by amongst others the CEO, CFO, and other senior management.

Our material aspects

Environment

- **Climate change**
 - Business strategy
 - GHG emissions
 - Energy use
 - Low carbon solutions
- **Environmental impact**
 - Emissions to air
 - Discharge to sea

Social

- **Safety and security**
 - Personnel safety
 - Emergency preparedness
 - Health and working environment
 - Security and cyber security
- **Responsible ship recycling**
- **Employee competence and development**
 - Diversity, non-discrimination and equal opportunity
 - Training
 - Career development
- **Responsible supply chains**
 - Human and labour rights in supply chain
 - Local procurement

Governance

- **Business integrity**
 - Ethics and anti-corruption
 - Fines and other sanctions
- **Compliance**
 - Legal and regulatory compliance
- **Innovation**

Want to learn more about our governance, including policies, guidelines and statements? Please visit 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.

2 304

Employees

12

Offices

55

Vessels

6

Countries of Operation

Petrobras, Esso, Equinor, BP, Chevron, Total, Suncor,
Husky, AkerBP, Vår Energi, Shell, Enauta, ExxonMobil

Blue Chip Customers

Altera Infrastructure has consolidated assets of approximately \$5 billion, comprised of over 55 offshore assets, including floating production, storage and offloading (FPSO) units, shuttle tankers, floating storage and offloading (FSO) units, long-distance towing and offshore installation vessels and a unit for maintenance and safety (UMS).

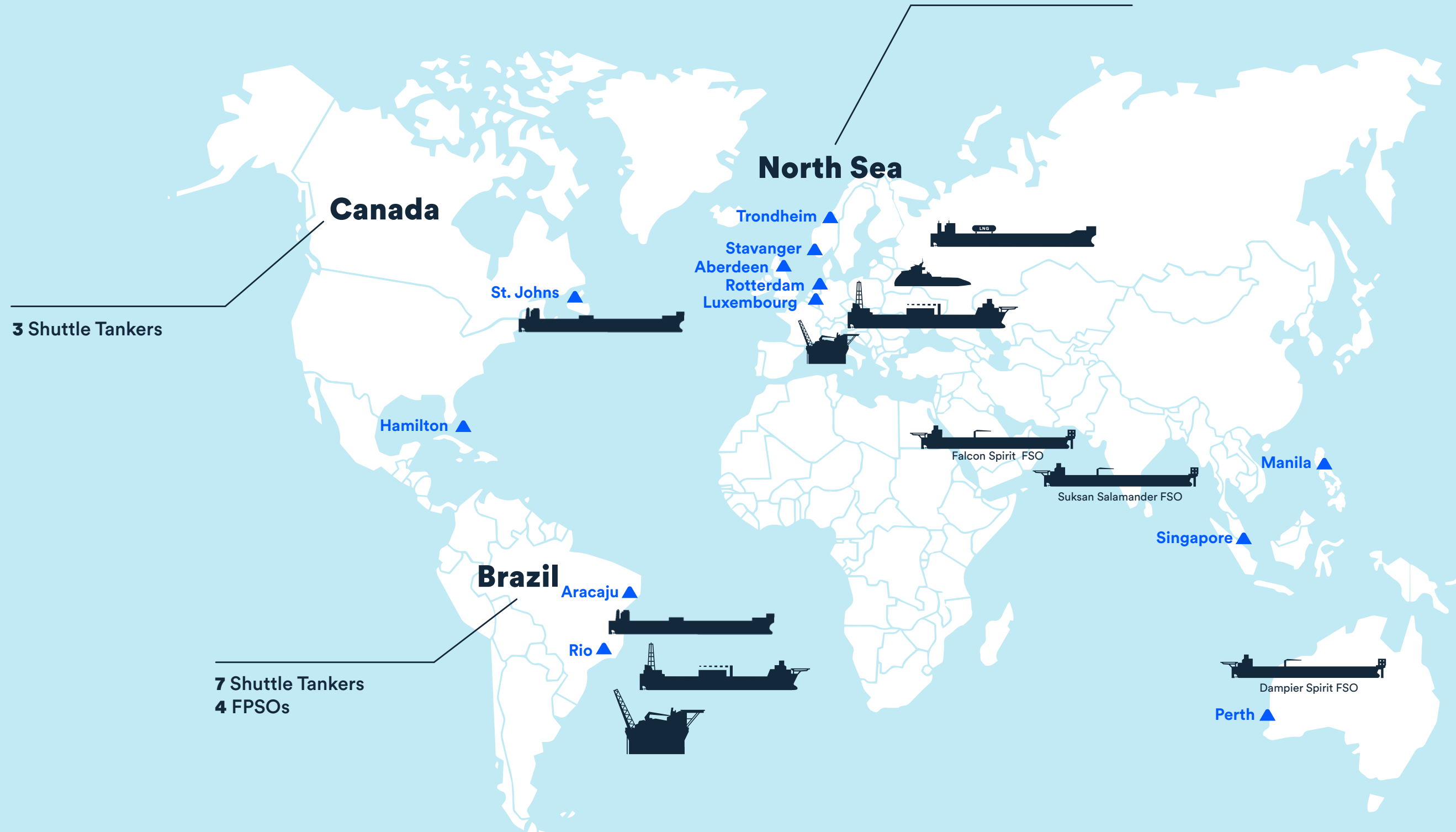
The majority of Altera Infrastructure's fleet is employed on medium-term, stable contracts. Affiliates of global asset manager Brookfield Business Partners L.P. (NYSE: BBU) (TSX: BBU.UN) own 100 % of Altera Infrastructure's general partner.

Altera Infrastructure L.P.'s preferred units trade on the New York Stock Exchange under the symbols "ALIN PR A", "ALIN PR B" and "ALIN PR E", respectively.

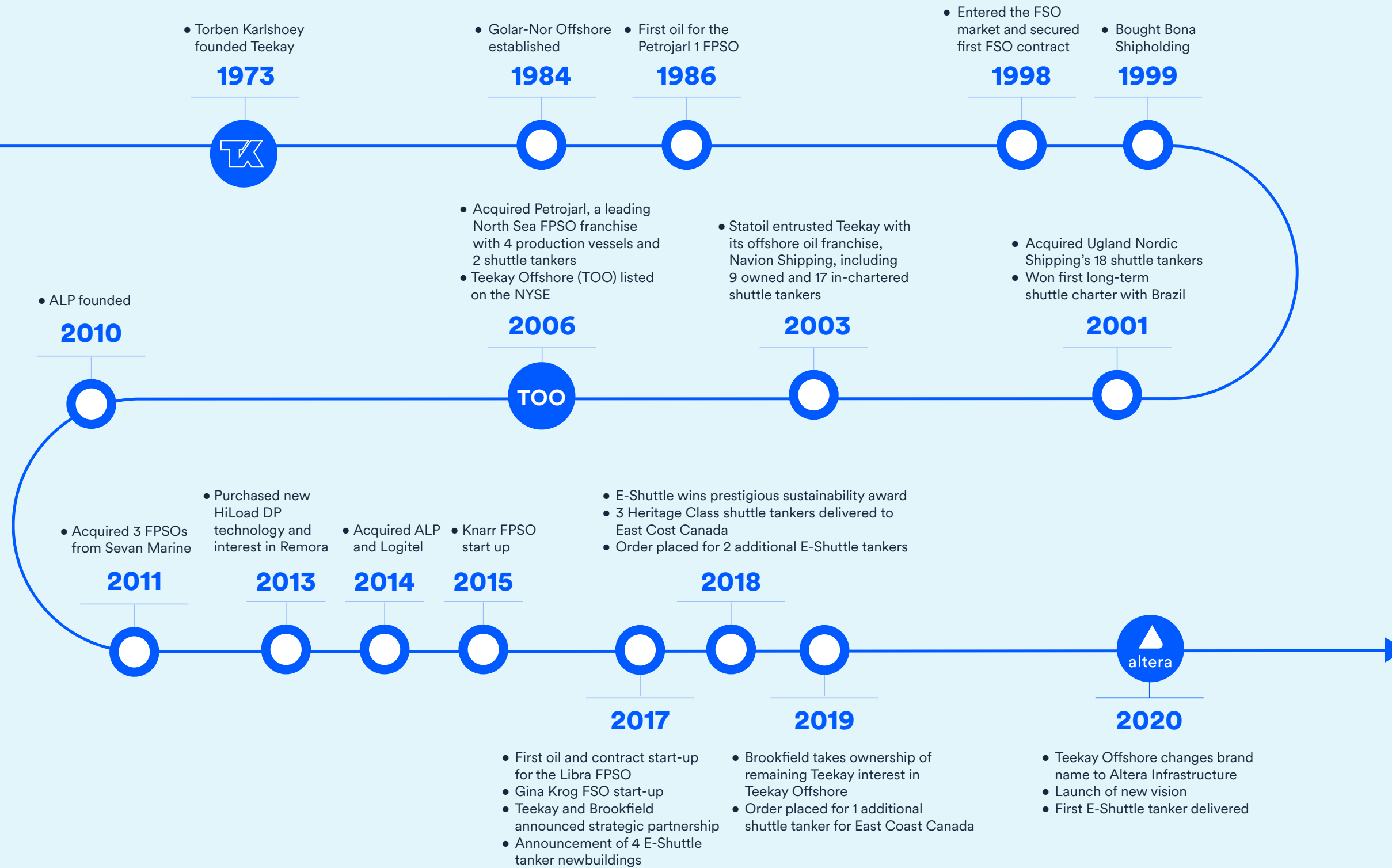


13 Shuttle Tankers*
5 FPSOs
2 FSOs
10 Towing Vessels

* incl. 2 in-chartered



Facts & History



Sustainability governance

Sustainability is directly linked to the long-term success of Altera Infrastructure. It is our vision to lead the industry to a sustainable future and we have a responsibility to drive necessary changes, while continually seeking out and creating more sustainable solutions.

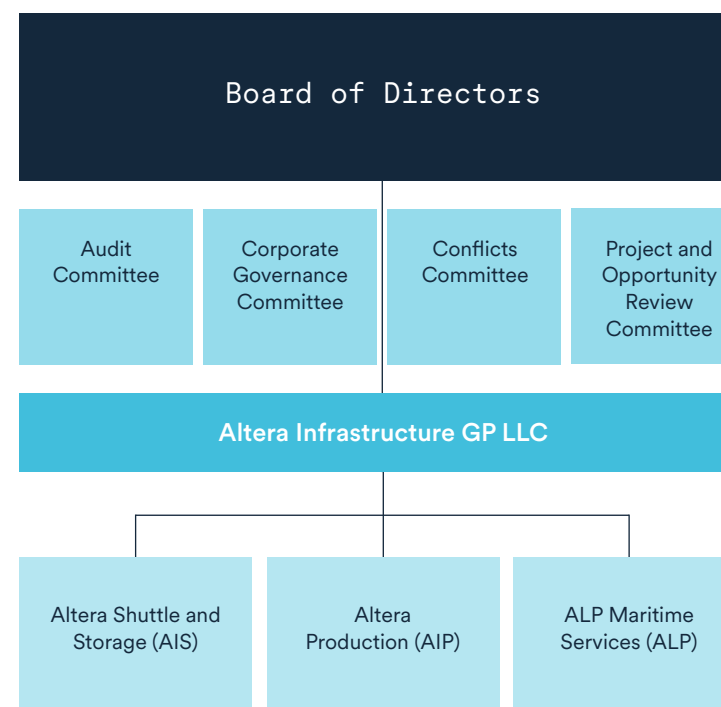
Our industry needs strong leadership on a global scale to deliver on the massive energy transition ahead of us. At Altera, we are fully committed to doing our part. We endorse the seventeen UN Sustainable Development Goals, and we use them to benchmark the strength of our performance in support of our vision. We are in the process of establishing and identifying the climate risks associated with Altera and aim to have a strategy for climate risks in place within 2020. Disclosures will be made in accordance with the Task Force on Climate-related Financial Disclosures (TCFD).

The global climate has changed. Altera acknowledges that humans contribute to this change, and that human-induced global warming has already caused multiple observed changes in the climate system. Through commitment, operational excellence, and continuous improvement, we manage our environmental footprint towards the goal of a zero-emissions industry. We seek to be at the forefront of technological innovation so that we can increase our environmental performance.

Leadership begins with the standards and ambitions we set for ourselves. For Altera, these standards go beyond compliance with laws and regulations. We aim higher and want to create mutual trust with our stakeholders. Our Code of Conduct reflects our TEAM values and establishes the high ethical standards that are the backbone of our culture.

The Board of Directors (BoD) of Altera Infrastructure GP LLC has the ultimate authority for decisions with regards to sustainability for Altera. They review and approve policies and oversee the response to (and compliance with) health, safety, and environmental matters. Furthermore, they review, approve, and monitor fundamental financial and business strategies, major corporate actions, and relevant risk assessments. The BoD has formed a number of committees to which it has delegated certain responsibilities.

We have established an internal governance structure designed to clearly embed and communicate compliance in our daily operations. The cornerstone



of this framework is our Code of Conduct, which sets forth our principles and expectations for ethics and socially responsible behaviour within our organisation and in our interactions with others, as well as clarifying the potential consequences for non-compliance. We require all Altera employees to confirm in writing their commitment to abide by the Code of Conduct.

Our Compliance function is responsible for the design, implementation, and maintenance of all our compliance and ethics activities. This includes providing guidance and training, as well as following up on potential breaches. To ensure the Compliance function can act and advise Altera independent of business or commercial pressures, the Chief Compliance Officer reports directly to the Chair of the Audit Committee of the Board of Altera Infrastructure GP L.L.C.

Safety, security, and sustainability management is an integrated part of our management system, which includes our policies, requirements, and guidelines



for all material topics. Together with our corporate governance principles and performance framework, this forms the basis for how we are embedding these topics into our business activities.

The business line is accountable for executing the company’s sustainability ambitions and for managing relevant risks and performance. Dedicated safety, security, and sustainability staff in the business line is part a of company-wide functional network and provides advice and support to the business line. Our people play a vital role in our business, and the passion and commitment of our people are our competitive advantage. We trust in them, treat them with respect and dignity, and make sure they have a safe working environment, which is free from harassment and discrimination. Support and respect for human rights, the elimination of child and compulsory labour, and freedom of association is fundamental

in the way we conduct our business. Giving back to local communities are important to us, and Altera partners with a variety of local organisations in all the regions we operate in.

As a responsible ship owner, we take full “cradle to grave” accountability for our assets. We have further strengthened our strict audit and inspection regime to include the approval of the ship recycling facilities we utilize, beyond the standards set by the Hong Kong Convention. 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.

Our management systems are certified in accordance with the International Safety Management Code, ISO 9001, ISO 14001, and OSHAS 18001.



Equinor Working Safely With Suppliers (WSWS) award

Altera was in 2019 awarded Equinor’s Working Safely With Suppliers Award. Part of the jury’s reasoning was “Teekay (now Altera) has developed a culture that demonstrates the will and ability to learn and to share challenging experiences in the industry”.

Long term value creation

This was an eventful and important year financially for us. During 2019, Brookfield took ownership of Teekay Corporation’s remaining interest in Altera, and Brookfield’s offer to acquire the remaining publicly held common units in Altera Infrastructure LP was approved on 1 October. Brookfield is a strong and committed sponsor for us.

Numerous debt capital transactions at favourable terms were made in 2019. Highlights include a \$450 million revolving credit facility secured by sixteen shuttle tankers, a \$414 million financing for the first four E-Shuttle tanker newbuilds, a \$100 million revolving credit facility secured by three FPSOs, and a \$214 million sale-leaseback transaction for E-Shuttle tanker newbuilds number five and six. We are particularly proud of our first venture into “Green Financing,” with our successful issuance of \$125 million senior unsecured Green Bonds related to the first four E-Shuttle tanker newbuilds.

Brookfield asset management overview

- 100+ years’ experience as a leading global investor, operator and manager of real assets with ~\$500bn assets under management
- Extensive experience owning and operating businesses in the energy supply chain
- ~17 000 km of natural gas transmission pipelines in the US and Brazil
- 600 billion cubic feet of natural gas storage in the US and Canada
- Approximately 250mmcfe/d of natural gas production in Canada
- Wholesale and retail road fuels marketing in Canada and UK
- Global investments in ports and rail (US, Europe, Australia)
- Rated A- and Baa2 by S&P and Moody’s respectively
- Significant banking, equity and debt capital markets relationships within Brookfield and through investee companies

The following table presents highlights of our consolidated operating results for the years 2017 – 2019 (ended by 31 December).

	2019	2018	2017
GAAP:	(in thousands of US Dollars, except per unit, unit and fleet data)		
Income Statement Data:			
Revenues	1 268 000	1 416 424	1 110 284
Operating (loss) income	(91 037)	111 737	(116 005)
Net (loss) income	(350 895)	(123 945)	(299 442)
Limited partners			
Net (loss) income	(378 770)	(147 141)	(339)
Net (loss) income per			
Common unit - basic	(0.92)	(0.36)	(1.45)
Common unit - diluted	(0.92)	(0.36)	(1.46)
Non-GAAP:			
EBITDA	206 909	466 799	162 618
Adjusted EBITDA	671 898	782 521	522 394

Read our full annual report on alterainfra.com



The E-Shuttle Green Bond

Issuer: Altera Shuttle Tankers LLC
Status: Senior Unsecured
Outstanding notional: \$125 million
Maturity Date: 18 October 2024
Coupon: 3m Libor + 650bps
Listing: Oslo Stock Exchange

This green shipping bond is the first of its kind in the Western hemisphere, and we have been awarded the “Green Finance Deal of the Year” by Marine Money for it. Our Green Bond Framework was given a second opinion by Cicero who assessed it as Light Green in their Shades of Green methodology.



The use of proceeds will partly finance the E-Shuttle tankers Aurora Spirit, Rainbow Spirit, Tide Spirit, and Current Spirit. These vessels are expected to achieve CO₂ savings of approximately 50 % compared to the last series of vessels we built for the North Sea. The newbuilds are delivered throughout 2020 hence there is not any environmental performance to report on these for 2019.

The proceeds from this issuance was in its entirety used for refinancing of intercompany debt in the first four E-Shuttle tanker newbuild vessels owning subsidiaries of Altera Shuttle Tankers as described in the Green Bond Framework, hence the balance of the earmarked account is zero.

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

► Altera Mission



Climate change and energy efficiency

At Altera, we acknowledge the human contribution to climate change, and that global warming has already caused multiple observed changes to our planet. We support The Paris Agreement and IMO 2050, and we manage our environmental footprint towards the goal of a zero-emissions industry.

Business context

It is likely that fossil fuels will remain a part of the world's energy mix going forward, even with a significant increase in renewable energy sources. This underlines the importance of energy efficiency and technology development for the oil and gas industry.

Altera recognises that the world's energy systems must be transformed in a profound way to drive decarbonisation, while at the same time ensuring universal access to affordable, clean energy and realising the United Nations Sustainable Development Goals (UN SDGs). As a global operator in the oil and gas industry that supplies the world markets with oil, we contribute to and have a significant impact on climate change.

Our carbon footprint is strongly related to emissions from production and transport of oil and gas.

Managing and reducing emissions are a priority for Altera, and we are fully committed to finding solutions for a low carbon future. We also plan to identify and manage our climate risks in accordance with the Task force on Climate-related Financial Disclosures (TCFD) recommendations.

Our actions

Energy efficiency

We are observing a steady reduction in our overall emissions of CO₂. This is a result of our continuous and thorough focus on emission reductions in all aspects throughout our fleets.

Altera is committed to minimising all emissions from our operations, by focusing on operational optimisations as well as adopting new technologies. We are also partnering with other companies and research institutions to reach the goal of a low carbon future.

SINTEF LowEmission Research Center

Altera is a part of the Low Emission Research Center, whose focus is on power and heat generation with lower emissions, reduced energy demand, and energy management. We believe that this type of partnership, between industry and scientific research, is the way forward in reaching the emission goals of Agenda 2030.

Continuous improvements to the way we operate allows us to reduce our energy consumption and emissions. The Shuttle Tanker fleets have an annual target to improve the energy efficiency for each vessel by 2 %, and we focus on operational energy efficiency across all fleets. The focus includes both operational and technological enhancements - from how we run turbines or install new technology to how we reduce energy consumption. Our broad focus allows us to identify and implement measures on each vessel, irrespective of its age.

Innovation and design

One of our key arenas for innovation is in our new-build projects, where we have control over the newbuild specification. In our shuttle franchise, we have demonstrated this with our E-Shuttles. In the FPSO segment, we have developed a novel E-FPSO concept, which showcases our vision for the next generation of production vessels. Acknowledging the immense opportunities there are for offshore carbon capture, we are actively engaging in Norway's Carbon Capture and Storage initiative.





Altera E-Shuttle

When we embarked on a fleet renewal programme back in 2015, we recognised the importance of building vessels that would maintain their relevance throughout their entire 20+ year lifespan. The technological advances seen today are progressing at a rate many times faster than what we have seen over the last 20 years. We also see stronger environmental regulations, especially with regards to energy efficiency and a move towards low to zero carbon emissions. In order to safeguard the substantial investments a shuttle tanker newbuild programme represents, we decided to develop the most

future-proof design available. We are very proud to have received funding from the Norwegian Ministry of Climate and Environment through their ENOVA program, which served as a valuable contribution to realising the construction of the E-Shuttles - two of which were delivered from the yard in Early 2020.

The design of the vessel combined with technological advancements enables us to achieve exceptional environmental performance related to fuel optimised design that uses LNG as fuel and turns potential VOC emissions into fuel.

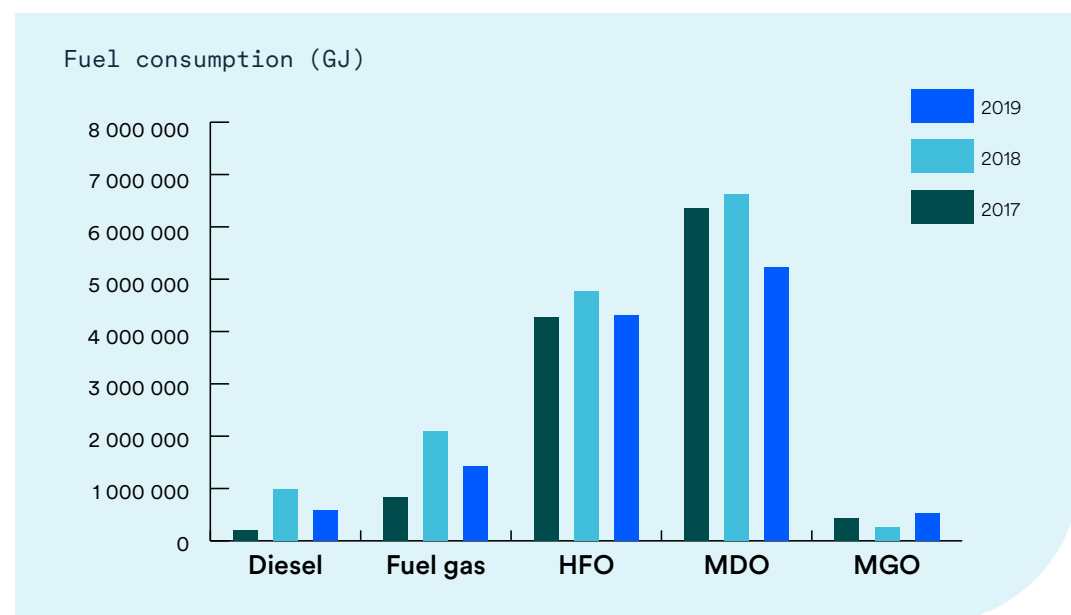
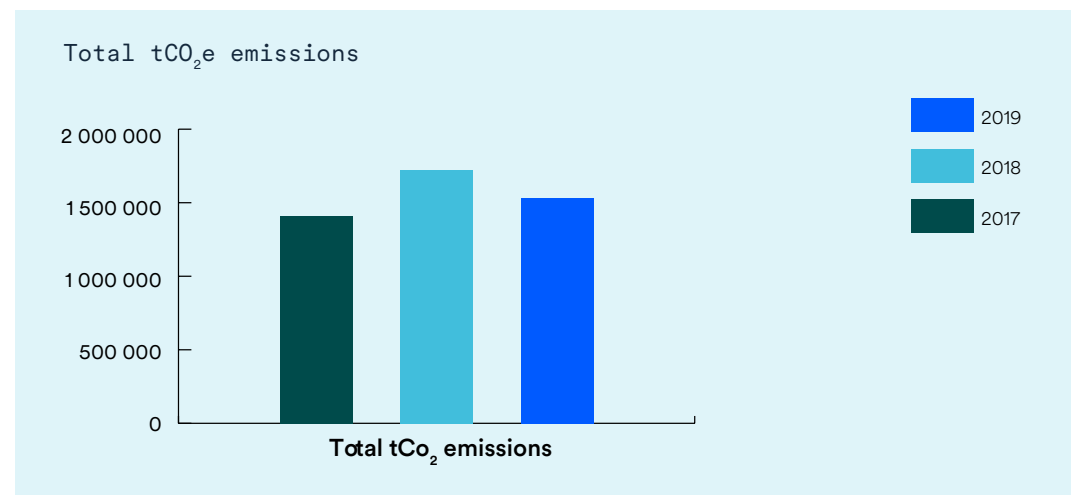
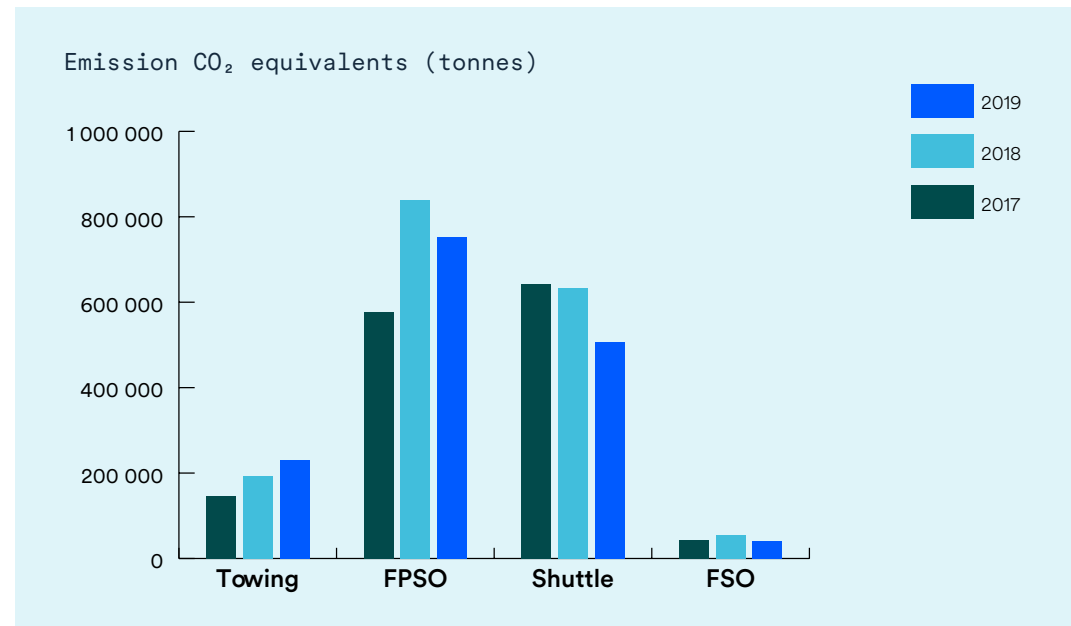
The innovative future-proof E-Shuttle design has led to the most energy efficient shuttle tankers ever built. We are excited to set new standards for both fuel consumption and emissions with the following estimated E-Shuttle results/benefits:

- Annual CO₂ emissions reduced by 47 %
- Annual NO_x emissions reduced by 80 %
- Annual SO_x emissions reduced by more than 95 %
- Annual fuel consumption reduced by 22 %
- Annual VOC emissions reduced by 95 %

Our E-Shuttles have been recognised with several industry awards and nominations, including:

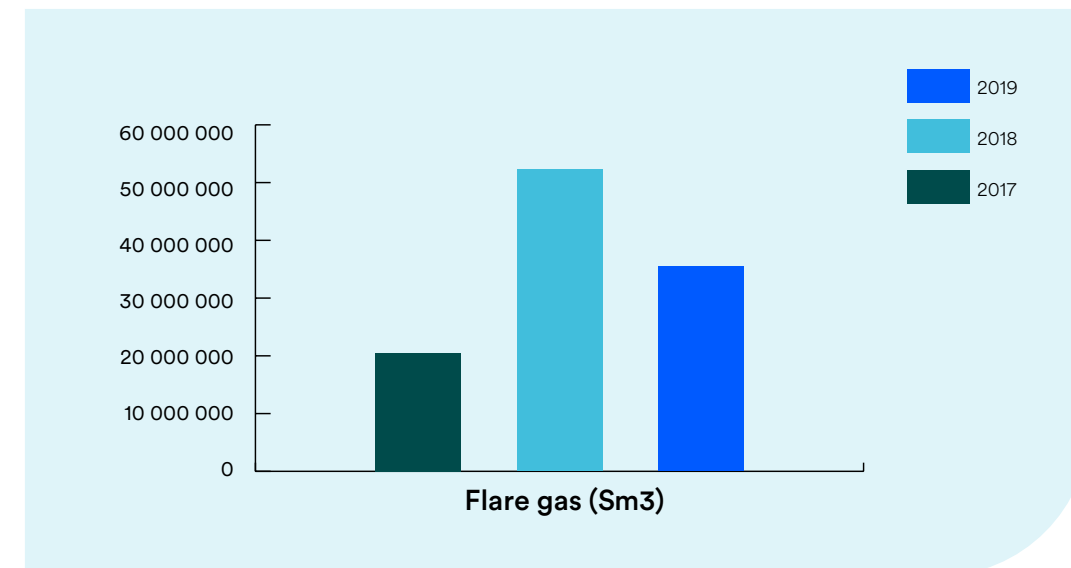
- Tanker Shipping & Trade Environmental Award 2018
- Top 4 nomination for the “Next Generation Ship Award” at Nor-Shipping 2019
- Rystad Gullkronen - Green Initiator of the Year Award 2019
- Seatrade Fuel Efficiency Award 2019
- Sulphur Cap Emissions Reduction Award 2020

Our performance



Flaring

Flaring is still one of the major sources of emissions for our production fleet, even if we see an overall decrease over the years. However, 2018 stood out in a negative manner with higher numbers. The high increase from 2017 to 2018 is due to two new FPSOs (Petrojarl I and Pioneiro de Libra) that started their production during this time period. At start-up of oil production, gas is introduced into the new facilities and individual systematic tests are performed to ensure that the newly installed equipment can be safely operated; most of this gas is disposed of through flare. Once the facilities are tested and safe, then normal operations ensue, and gas is used as fuel or injected back into reservoir. This eliminates, or severely reduces, routine flaring. Our constant focus on the elimination of routine flaring, along with up-to date operational procedures performed by our experienced crew, contributes to the flare reductions we observe.



Our climate KPIs

	2019	2018	2017
tCO ₂ e per bbl o.e produced	0.03	0.03	0.02
tCO ₂ e per mill. dollar revenue	1175	1177	1229
Shuttle EEOI	23.3	26.6	24,2



Our Goal Zero Hero

It was a proud day for everyone in Altera when Shell awarded our Marine Control Room Operator on the Petrojarl Knarr, Jens Eker, with the Goal Zero Hero for Q4, 2019.

Jens Eker, who is a driving force on Knarr's Green Team, came up with the idea of improving the environmental performance of the vessel through reduced flaring by making adjustments to the operation of the cargo blanketing system.

What is your role on Team Altera?

For the last four years, I have been a Marine Control Room Operator on the Petrojarl Knarr in the North Sea. And previously, I have been working as Marine Supervisor on the Petrojarl Varg, Cidade de Itajai and Foinaven. I am also the leader of the Green Team onboard the vessel.

How did you get the idea that won you the award?

Personally, I am very interested in the environment and our climate. It is something that we talk a lot about, both with colleagues and my family at home. I always look for ideas and opportunities for improvement. It really has become a passion for me, and I am very happy that my idea turned into reality. This way, I could contribute just a little bit to creating a better future for all of us.

Can you explain your solution in the simplest terms?

During regular FPSO operations, oil is being filled into the cargo tanks. During this process, pressure is building up if you are not releasing gas. In order to control this pressure, the redundant gas is typically exported ashore. In case of an upset (e.g. too much oxygen in the gas or a stop of production), this gas export needs to be stopped. As the pressure continues to

build up, the gas needs to be released into the atmosphere through flaring. However, the redundant gas does not need to be exported as long you are able to control the pressure (the standard trigger point is 80 psi). My idea was to make some adjustments to the operation of the cargo blanketing system, by reduce the operational pressure in the tank to start with, while at the same allowing for a pressure increase to 110 psi before any gas is released, which is well within the safety limits. This way, you can reduce the overall need to release gas through flaring and thereby improve the environmental performance of the FPSO, and as a bonus this gas can be exported for commercial purposes.

How did your idea become a reality?

I submitted my idea through using our safe card system, which includes the ability to use a green card, implemented in 2018. Our Offshore Installation Manager (OIM) supported it straight away and made it happen. He was also the one who submitted the idea for the Shell award.

What's next?

It is great to see that good ideas are implemented and even awarded. It really encourages you to come up with more ideas. It is too early to talk about those now, though.

Environmental impact

The ocean shapes the Earth's climate and absorbs up to 90 % of greenhouse gas emissions caused by human activity. It is home to a unique marine biodiversity and fosters industries employing millions of people while generating trillions of dollars in value for the global economy every year. As an operator in this extraordinary environment, we are committed to do our part in conserving the oceans and to minimise our overall environmental impact.

Business context

Significant environmental aspects of our offshore energy activities include discharges of produced and processed water with potential effects on marine biodiversity. We have a continual focus on optimising production, reducing production chemicals, and substituting to more environmentally friendly chemicals. We minimise all discharges and waste, and make sure that we dispose of all waste that we generate in a responsible manner.

We consider the environment in all aspects of our operations, and we plan and monitor our performance. Dedicated and competent employees are essential in our goal to reducing our impact and finding the best available solutions. We work continuously to avoid any spill to sea, and we report and investigate spills to identify root causes and actions to prevent recurrence. In addition, we have up to date spill response and emergency preparedness procedures to reduce any consequences as much as possible.



Green Teams

Each of our FPSOs has a dedicated Green Team. The Green Team is a resource group that everyone on board the vessel can join. The mission is to find improvement opportunities for the environmental performance of the vessel. These teams meet regularly to discuss and elaborate on environmental ideas.

Green Team members have made a difference in our fleet for many years with their input on improved environmental performance. Together with offshore management, they have established improved technical and procedural solutions in processing facilities, energy efficiency such as the reduced or altered use of turbines and waste reduction initiatives. All the Green Team initiatives improve the environmental footprint in Altera.

Our actions

Altera works continuously to reduce waste production and to properly segregate and recycle our waste. In 2020, Altera will work to align waste data between our different business units. We also challenge our suppliers on their environmental footprint, and we only engage with business partners who share our policy on environment and sustainability. As an example, on the Norwegian shelf we have distributed a presentation on plastic waste reduction to our top ten suppliers to further increase their focus and knowledge to the reduced use of plastics.

Clean ocean focus – Altera is quitting on plastics

Every year, eight million tonnes of plastics enter our oceans, that is 15 tonnes every minute, and at this volume and pace, by 2050 we will have more plastics than fish in the ocean. To the vulnerable marine life, plastics is a considerable threat to their survival, and an estimated 100 million marine animals die because of plastics, every year.

In Altera we are passionate about our oceans, and we want to keep them healthy and free from pollution. We have therefore acted across Altera, from



our smaller towing vessels to our massive FPSOs, and shuttle tankers, to make sure that we are doing our part in reducing plastics and waste. On our towing vessels, filters are installed to refine the drinking water. This action removed the need for single use water bottles, saving a massive 70 000 bottles a year. Similar initiatives were implemented across Altera; 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. By removing the single-use shoe covers, only on our FPSOs, we are saving an estimated 78 000 pairs of plastic shoe covers per year and vessel.

Industry leading role in VOC reduction

When loading crude oil on to the vessel tanks, the existing inert- and hydrocarbon gases are displaced, and is typically emitted through the vessel's mast riser. In addition, most crude oil compositions release vapors when pumped or are exposed to pressure variations, such dropping into the vessels' cargo drop lines. We refer to this as crude oil flashing. The combination of gas displacement and flashing leads to emissions of Volatile Organic Compound (VOC) gases during oil loading.

VOCs emissions from offshore loading contain mainly methane and a propane-mix. The Non-Methane VOCs (NMVOCs) are harmful Greenhouse gases, and cause formation of ground level ozone that can

be harmful to both human health and plant life. On the Norwegian Continental Shelf (NCS), there has been a NMVOC emission limit for offshore loading of oil using shuttle tankers since 2002. This spurred the formation of the VOC Industry Cooperation (VOCIC). VOCIC consists of all the license owners of offshore loaded fields on the NCS. They collectively invest in VOC reduction technologies which installed on the shuttle tankers trading on the NCS and reports the NMVOC emissions on behalf of its members to the Norwegian Environmental Agency.

From the beginning, Altera has held the role of VOCIC Administrator, meaning we provide technical support to all the shuttle tanker owners on the NCS with VOC reduction technologies onboard. We also monitor emission performance and make budgets and investment plans, on behalf of the industry, both short and long term. Since its implementation, VOCIC has spent close to \$500 million on VOC reductions.

Export of tonnage

Økokrim (the Norwegian National Authority for Investigation and Prosecution of Economic and Environmental Crime) and the local Stavanger police raided the premises of our subsidiary Teekay Shipping Norway AS in Stavanger, Norway, based on a search and seizure warrant 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. Although we have not identified any such violations and deny the charges, we continue to evaluate any potential liabilities with our advisors. In the meantime, we will continue our full cooperation with Økokrim and any other relevant authorities as required.

Our performance

In 2019, we experienced seven spills, causing 2 224 liters of chemicals and 0.5 liters of oil to leak into the sea. Two of the spills over ten liters are related to water solvable production chemicals and were due to a discharge from an unpermitted release point and an overflow from a day tank. The most serious spill is in connection with an ongoing leak of lube

oil from a propeller stern tube seal. The repair must be done sub-surface, and due to the harsh winter weather at the location, we have been forced to postpone this repair until the weather improves and the repair can be done in a safe manner for our personnel.

We observe that the oil content from our produced water increases over the period from 2017 to 2019. However, the average oil content in discharged produced water sits at ten ppm, well below the 15 ppm Brazilian requirement and 30 ppm requirement on the Norwegian and British shelf. The increase in oil in produced water is common for fields that are coming to an end of production and therefore have large amounts of water in the reservoirs.

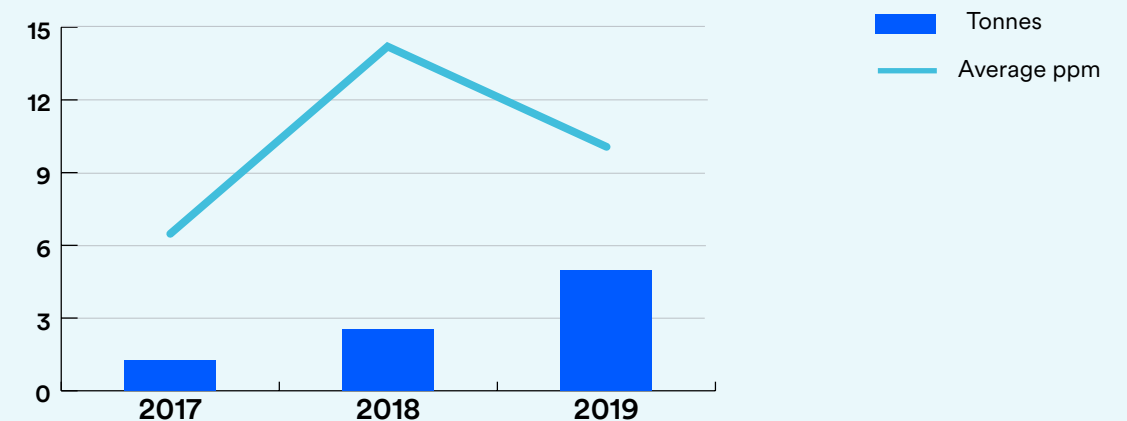
Chemical spills

	2019	2018	2017
Number	6	1	1
Volume (liter)	2 224	0.5	1

Oil spills

	2019	2018	2017
Number	1	5	5
Volume (liter)	0.5	769	56

Oil in Water

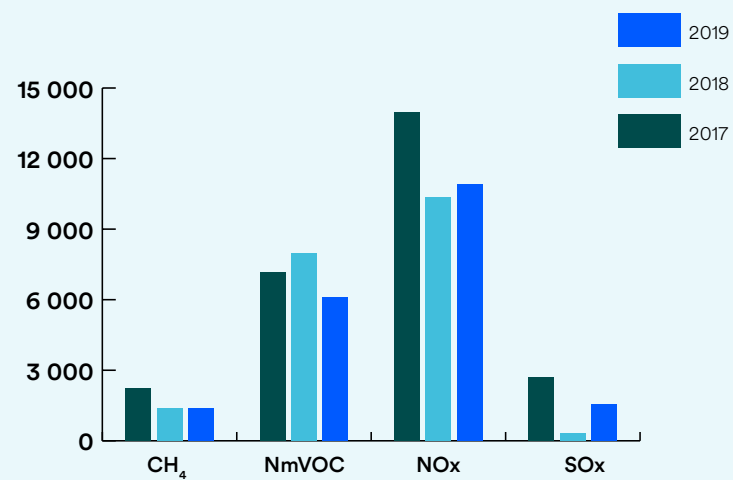


The VOC emissions from offshore loading with our vessels on fields on the NCS can be seen in the table below. The reduction in the period 2017-2019 is mostly attributed to a reduction in fleet size.

	2019	2018	2017
No of vessels	11	12	9
NMVOE emissions [tonnes]	5 789	7 480	6 640
Methane emissions [tonnes]	754	814	641

The measuring and reporting of VOC emissions during offshore loading is as per today only required for activities on the NCS. VOC emissions from shuttle tank activity in other parts of the world is not monitored.

Other emissions to air (tonnes)



Safe operations



Business context

Safety is our first priority – always. We acknowledge that ensuring the health and safety of all the people involved in Altera is a requisite for our license to operate. We thrive for zero harm to personnel and our commitment to safety is directly linked to the long-term success of Altera. It is our policy to incorporate a strong risk and opportunity-based approach to safety in our strategic and daily decisions, as we are committed to meeting or exceeding all applicable legislation and regulatory requirements.

In order to meet our commitments, we:

- Ensure safety is a line responsibility
- Actively engage with our employees and their representatives
- Empower everyone to stop work where safety is at risk
- Manage hazards to prevent major accidents
- Systematically manage health and safety risks
- Continuously improve our processes and performance
- Only engage with business partners and suppliers who share our approach to health and safety

Altera has well established procedures, systems and tools, as well as training and continuous improvement activities, in place. Transparent reporting is an important part of our safety culture and a prerequisite for continuous improvement. Everyone in Altera is encouraged to report ideas and suggestions for improvements, in addition to incidents and hazardous conditions. Brief reports describing an incident and lessons learned are shared with the relevant fleets in order to ensure that we learn and improve the way we work.

As a group of companies with a global presence, we are presented with several unique security risks that we need to manage. The cyber security threat is growing and is expected to continue to do so worldwide. We actively work to manage these risks through a continuous improvement of our competence, routines and systems in order to safeguard our people, our assets and our information.

Our actions

In 2019, we continued to have a strong focus on the simplification of processes and procedures. We also saw increased preventive activity in the areas of mental health and occupational health risks. A number of tailored activities and campaigns were developed and implemented. In addition, we hosted various welfare events. Relevant awareness articles and reports were shared with employees onshore and on board our vessels. In some of our offices and on board numerous vessels, we offered health checks and encouraged employees to take part in fitness activities. Some examples of safety campaigns we launched in 2019 are: a process safety campaign to prevent gas leaks and major accidents, an Integrated Management System (IMS) campaign, a health risk awareness campaign, a healthy eating campaign, a safety day with focus on hazards, and a hand and finger campaign.

Our employees, both onshore and offshore, routinely train and exercise on their roles and responsibilities in emergency response situations so to be prepared for if, and when, incidents occur. After many months of careful planning we opened a new state-of-the-art emergency response center in Powerhouse in 2019, allowing us to manifest our uncompromised commitment to safe operations. Similar emergency response improvements are considered for several of our global offices.

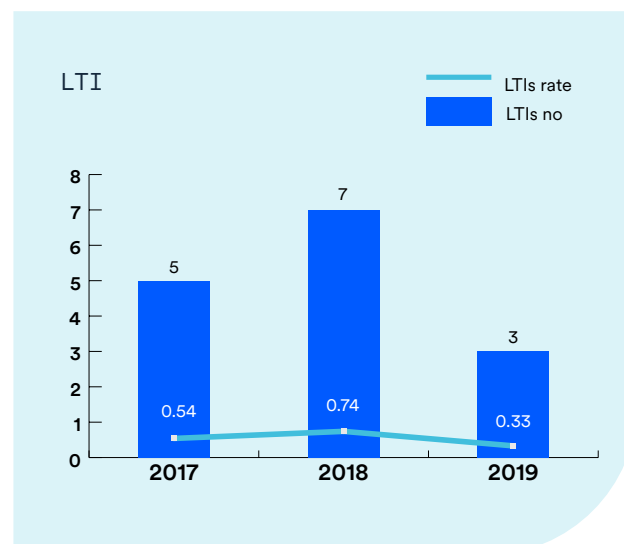
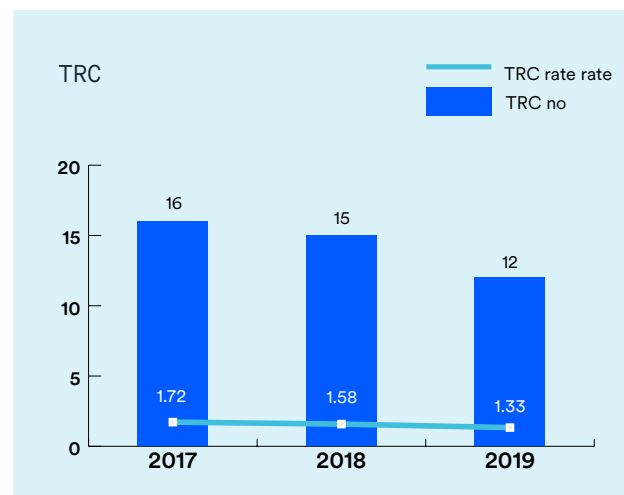


Our performance

Across the group of companies, we had three LTIs in 2019 - two in our Shuttle fleet and one in our FPSO fleet. This is an encouraging trend, down from seven LTIs in 2018 and five LTIs in 2017. We could also see a reduction in Total Recordable Cases (TRCs). A total of 12 cases were reported, compared to 15 in the previous year, and 16 the year before that. We are also glad to report that we had no High Consequence Injuries (HCIs) in that same time frame. The total amount of hours worked has been fairly stable over the last three years.

In addition, we significantly reduced the number and total volume of gas leaks above 0.1 kg/s from five in 2018 to one in 2019.

Most of the injuries were related to hand and fingers. As part of our procedures, we investigated all incidents to establish the root causes and determined actions needed to prevent anyone from being harmed.



LTI on Lambada Spirit

On 6 September 2019, the engineer Lukasz Betlejewski fell from a stepping ladder, causing a fracture to his leg. The accident was classified as Lost Time Injury (LTI) and it took half a year before Lukasz was able to return to work. Fortunately, he has fully recovered with no lasting impact on his health or well-being.

An interview with Lukasz Betlejewski 1st Engineer



What is your role on Team Altera?

I am a 1st Engineer and work in Altera's fleet of shuttle tankers.

What happened last year on 6 September?

At around 13:00, while we were preparing for loading operations, I was working on the bow loading system's lubrication hose, together with one of the other 1st Engineers. He was holding the ladder I was using to reach the hose. I was standing on the 2nd and 3rd step of the ladder and felt stable and safe. After finishing the job, the 1st Engineer stepped back to give me a free passage when I wanted to step down the ladder. When taking the first step, my leg slipped off the ladder and immobilized between two steps, causing the ladder to slip and fall on deck. I landed on my feet, my leg still stuck between two ladder steps. I immediately felt that my leg was bent unnaturally. I sat down on

deck and when I touched my right leg, I realised it was broken. After a little while I started feel the pain and informed the 1st Engineer accordingly. The crew secured my leg with a vacuum bag and moved me to a stretcher. I was then transported to the hospital in Niteroi. After one week in hospital, I was able to travel back to my family in Poland.

How are you feeling today?

I feel good. I have no more pain and I am back at work and have no lasting damage. I love to run, and now I can even run again without any issues.

How long were you off work?

I returned to work on 8 April. While I was off, I was in regular contact with Altera and had good follow up from the HSEQ team and vessel managers. Now I am just happy to be back in action, onboard of Navion Oslo.

Could the accident have been avoided?

All safety measures were in place and I had used the ladder many times before. I think it was bad luck. However, I have learned from it and next time I will use a platform and a non-slip matt.

To your knowledge, have any measures been taken to avoid similar incidents in the future?

Lesson learned have been issued by management and shared with the fleet.

Any advice you can give to your colleagues?

Don't take safety for granted, even if you have followed the same procedure many times before. Always think before you act and learn from events and mistakes, your own and those of others.

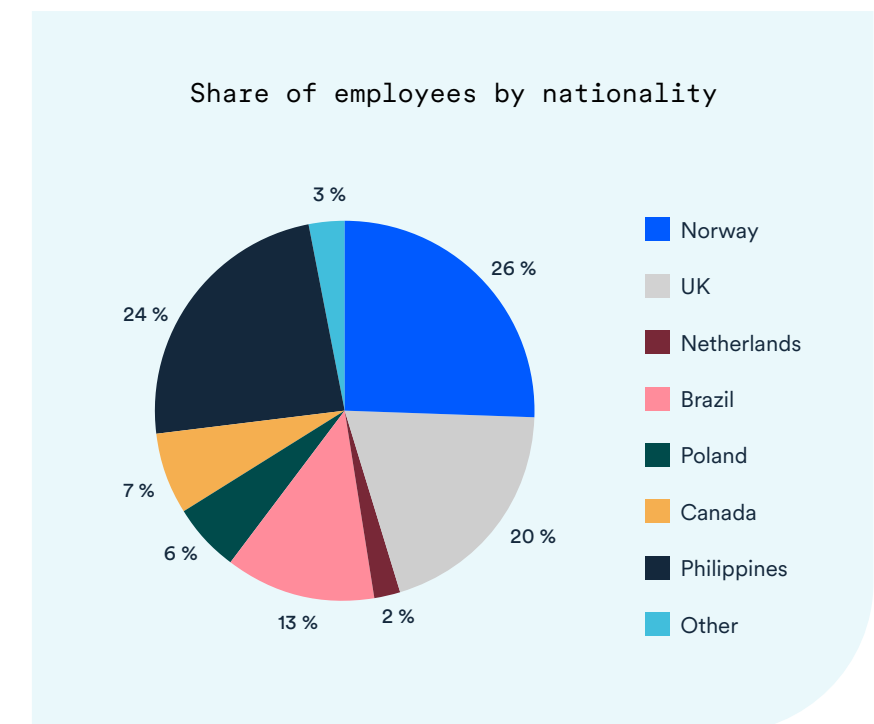
Our people and competence



Business context

At Altera, we have a team of ambitious professionals that thrive in an agile and inclusive work environment. When drafting this report, Altera has 2304 employees from more than 20 countries. The top nationalities in terms of employment contracts are Norway, the Philippines, UK, Brazil, Canada, Poland, and the Netherlands.

Our employees are committed to operational excellence - they value and respect each other, create mutual trust, and succeed together. It is important for us that everyone at Altera knows that they can make a difference, and we always try to create engaging training and development opportunities.



Our actions

The way we work

At Altera, we have a set of established global HR policies and guidelines, as well as local office handbooks and procedures in place. These are consistently reviewed and updated. Policies include a global recruitment and selection policy, a global drug and alcohol policy, and an anti-discrimination, anti-harassment and fraternisation policy.

In our newly established People portal on the intranet, employees can find relevant information and tools in one central place. The portal is currently under development and we expect its completion to take place in 2020. A recent area of activity has been to provide our employees with support and guidance in regard to the COVID-19 situation, how to deal with uncertainty, as well as how to work and lead from home.

Strategy and leadership

Following thorough discussions about our strategy, ambitions, and beliefs, the Executive Team developed a new vision and mission for Altera, supported by a new corporate identity and refreshed company values.

A companywide strategy meeting was held in autumn to align senior leaders around strategy and leadership. This created ownership and a common platform, providing the business units with the ability to pull in the same direction. Going forward, the Extended Leadership Team, consisting of approximately thirty senior leaders across business units and corporate functions, will be the driving force in bringing our new vision and values to life.

A key milestone was achieved in January 2020, when vision and values were rolled out to the entire organisation. The Extended Leadership Team will



“Our employees are committed to operational excellence - they value and respect each other, create mutual trust, and thrive together.”





continue to meet on a regular basis with the aim of keeping a joint direction for the rest of the organisation as well as further enhancing leadership on all levels.

Training and development

Training forms an integral part of Altera's Safety Management System and the foundation of our Competence Management System. All training objectives and programs are determined by national, international, regulatory, and industry requirements, and are being continuously reviewed, adjusted and improved.

Our employees have a set of training requirements related to their position or role, and these requirements are typically organised in a training matrix. Relevant professional development activities can also be included. The matrix is reviewed continuously to ensure that we always have the required competencies available at any given time. The main training and competence development focus area in 2019 was the continuation of Accountability Leadership Training for the entire organisation

that started in 2018. As part of this, an accountability leadership e-learning tool was developed and launched in support of this effort, thereby also giving new hires the opportunity to develop their leadership competence in an engaging and efficient way.

On 11 December, we had the honour of presenting a bridge simulator to the Marine Institute of Memorial University of Newfoundland. This simulator creates the operating environment of a shuttle tanker in the Grand Banks and will enable our navigational officers to train in their home province and provide new training opportunities to students.

In total, Altera provided approximately 15 000 hours of training to employees throughout the year.

Our performance

At Altera, we believe that having a high proportion of permanent employees drives ownership, accountability, and motivation. At the end of 2019, approximately 85 % of our employees were permanently employed, while roughly three quarters of those work onboard our vessels.

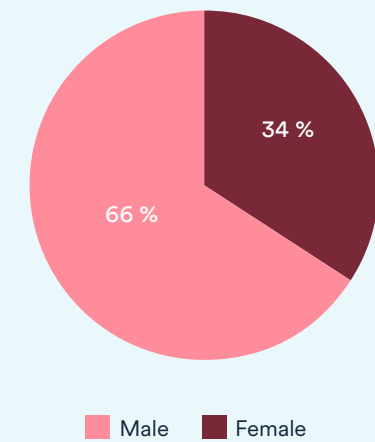
Attrition varies considerably across business units and fleets. It is a constant focus area for us, and we strive to manage attrition at industry leading levels, while we continue to implement relevant actions and initiatives.

Turnover 2019			
	Shuttle and FSO	FPSO	Towing
Onshore turnover %	3.4	10.5	4
Offshore turnover %	2.1	7.4	11.7

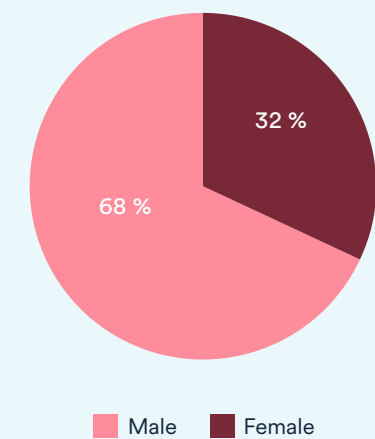
The industries we operate in are traditionally male dominated. This is also true for Altera. In 2019, one third of our onshore employees were female. Amongst our seafarers and offshore, this number is 3 % (leading to a total male:female ratio of 9:1). In our executive team, two out of eight members are women and on the Extended Leadership Team, one third of members are female.

We will continue to have a conscious and proactive approach towards diversity in all of our recruitment processes and will remain fully committed to gender equality.

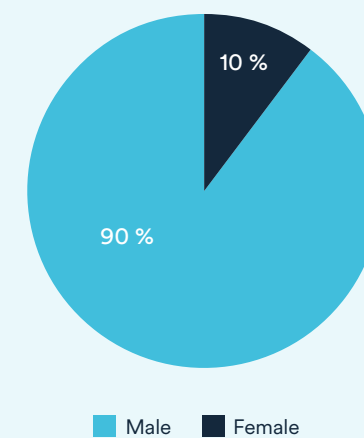
Share of employees by gender onshore



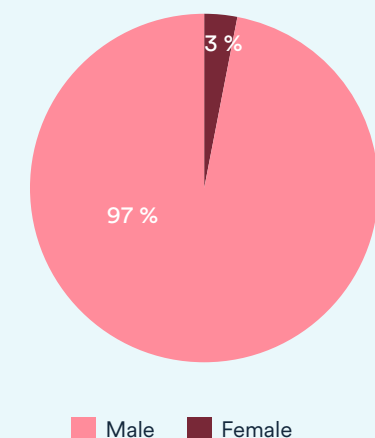
Share of employees by gender in the Extended Leadership Team



Share of employees by gender



Share of employees by gender offshore



Innovation

Altera is driven by desire to develop technological innovations that create long term value for our stakeholders. From our purpose-built FPSOs for harsh weather conditions and our ultra-long towing distance tugs, to our latest generation of shuttle tankers, innovation is at the core of what we do.

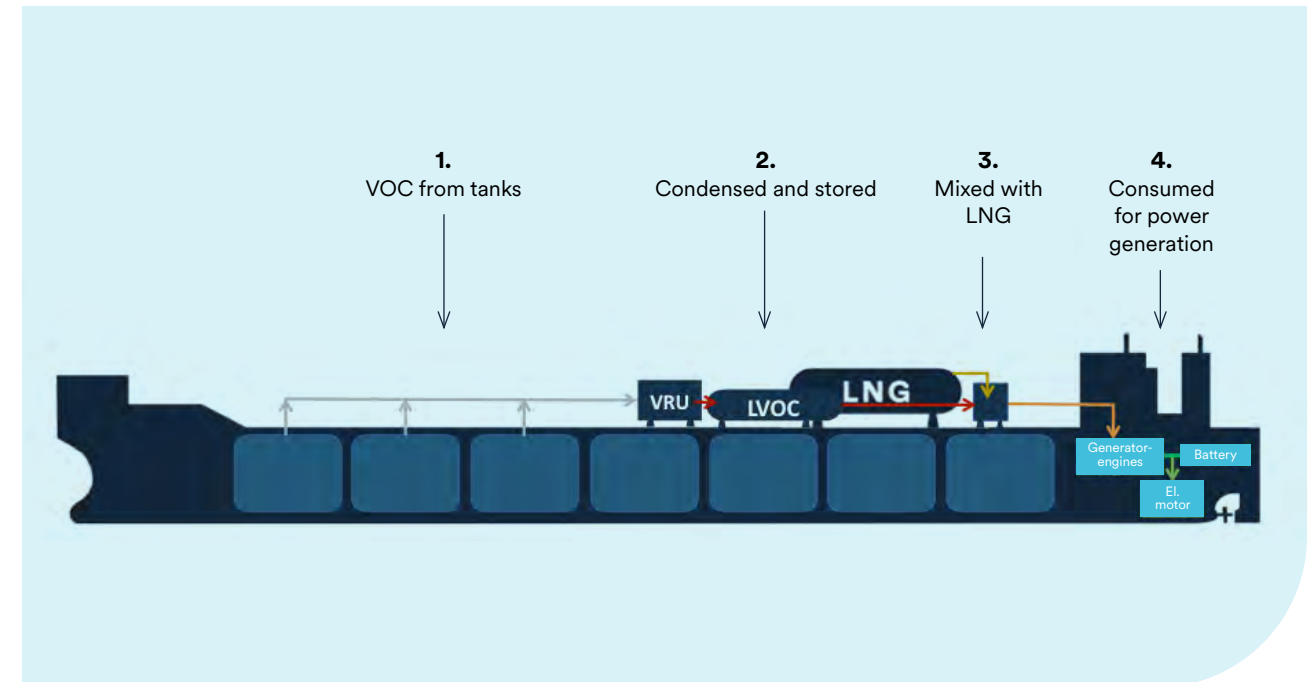
“As we continue to build upon our strong history of developing business models and technical solutions that can meet the changing demands of energy infrastructure, it is our ambition to be at the forefront of innovation.”



The Altera E-FPSO

With a combined 120 years of FPSO production experience, Altera is well positioned to design and develop the next generation of FPSOs. The next generation FPSO will be a result of technical programmes focusing on hull, topside, and turret - with key focus areas being digitization and sustainability. It will be developed for both harsh and benign

weather areas, with the goal of having concepts that are approved in principles by a class society that will include a standard topside philosophy and layout. New technology and design will improve the overall environmental performance by significantly reducing fuel consumption and eliminating flare.



The Altera E-Shuttle

Since our entry into the shuttle tanker market, we have continually developed new technological solutions that improve both operational and commercial efficiency, as well as our environmental performance. The innovative design of our E-Shuttles are no exception. The vessels are the first of their kind to use their (own) emissions as fuel.

Many of the features pioneered by the E-Shuttle design have now become preferred solutions for other charterer's newbuild tender processes. The electric power distribution design allows for integration of power sources (e.g. fuel cells or future battery technologies), should these become viable future solutions for these vessels. The dual fuel engines also allow for the use of bio and other synthetic gases, making the E-shuttle concept future proof as our industry continues to decarbonise.

In close cooperation with the yard, the classification society, and equipment manufacturers, we have developed some key features that differ significantly from previous generations of shuttle tankers:

- Fuel optimised design.** The vessel has a varied operational profile and short transit legs. In combination with the technologically advanced electric propulsion systems, a gas-electric propulsion system was selected that allows for better year-on-year fuel optimised design. In addition, the electric propulsion system reduces the required total mechanical installed power by 14 %, increasing the overall fuel performance compared to traditional power distribution concepts.
- LNG as fuel.** LNG has an inherent CO₂ reduction “Well to Wake” (WTW) of approximately 15 % compared to marine gas oils. Combined with an ever-expanding LNG infrastructure, lower fuel costs, and possibilities to alternate between biogas and synthetic methane makes LNG an increasingly attractive fuel and an enabler for the future decarbonisation of shipping.
- Turning emissions into fuel.** Volatile Organic Compounds (VOCs) are produced in a gaseous state from evaporation occurring in the oil cargo tanks. On average, 100 tonnes of VOC are emitted per offshore loading. The E-Shuttle captures the VOCs through onboard condensation plants and when mixed with the LNG it is able to utilise its own waste gas as fuel, reducing both emissions and bunkering requirements considerably.



The ALP Future Class

The ALP Future Class is a series of four ultra-long towing distance, ocean going tugs. With a bollard pull of more than 300 tonnes, the innovative vessel design allows for the towing of very large structures over long distances, such as oil rigs or FPSOs, from the building yards to the installation site at the oil field. The vessel has fuel capacity to tow at full power for 45 days. ALP Striker has renewed her existing Bollard Pull Certificate in March 2020 after being in operation for almost four years. The vessel tested 312 tonnes continuous bollard pull, with an increase of three tonnes bollard pull compared to the result upon delivery.



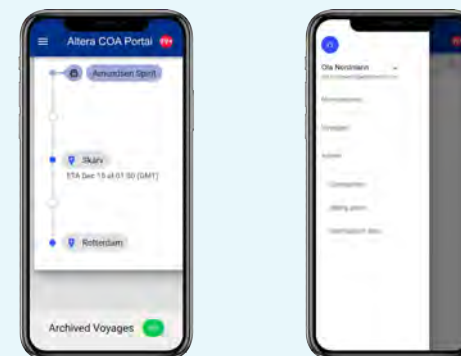
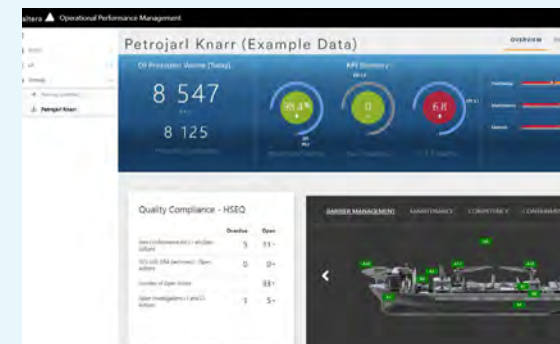
Digital transformation

Altera's digitalization strategy is an integral part of our overall business strategy. Making operational data more transparent and accessible increases our operational effectiveness, the quality and pace of our decision making, as well as improving our ability to work even closer with important stakeholders. Some of the initiatives we have recently implemented include remote support, the provision of live dashboards, and the use of digital customer portals.



Remote support

Tailor made dashboards allow users to access critical information, troubleshoot equipment, and help optimise production. We can assist offshore operations from onshore in a safe and more efficient way, including monitoring of equipment and provision of expertise. Benefits are increased efficiency, optimized operations, increased collaboration between offshore and onshore, and reduced travel. Altera has successfully exemplified remote support through flow meter calibration and Factory Acceptance Testing. In addition, we have collaborated with a start-up company named Scout Drone Inspection AS, in testing the use of autonomous drones for tank inspections where the camera image can be sent onshore in real time for evaluation. This solution removes the need for scaffolding and for personnel to enter tanks, thereby increasing safety and the quality of documentation, while simultaneously reducing cost.



Live dashboards

The development and implementation of dashboards allows us to share live data with our employees, subsequently improving safety, as well as operational and economic performance. These dashboards monitor operational performance and barrier management.

Digital customer portal 'CoA Portal'

We have developed and implemented a digital platform providing specific customers, with agreed upon commercial arrangements in the form of shuttle tanker rates via Contracts of Affreightment, the ability to call for a shuttle tanker online. This portal drives the client interaction into a more agile direction by reducing the amount of emails during the nomination process. As an additional feature, every voyage can be monitored by the client - from accepting the nominated vessel to cargo discharge in port. For ease of use, the portal can also be downloaded onto a smart phone.

Responsible business

Business context

Altera's vision is to lead the industry to a sustainable future, one marked by strong business ethics and mutual trust between Altera and our customers, investors, suppliers, partners, regulators and other stakeholders. We are firmly committed to responsible business practices in our global operations and to compliance with all applicable requirements regarding anti-corruption, international trade, competition, and privacy.

We have implemented a number of practices and procedures designed to embed business ethics within our operations. We consider compliance risk as part of our enterprise risk management process and use these assessments to appraise the strength of our compliance program and to inform about our consideration for new business opportunities.

Our actions

Due diligence

Our business activities depend upon the support and services of a variety of third parties around the world, which we hold to the same ethical standards as our own. We have therefore implemented a rigorous risk-based due diligence process to screen our potential business partners, third parties, and counterparties against sanctions and watch-lists to confirm their reputations regarding ethical business practices.

Business ethics

We require our employees to complete annual compliance training. It covers a broad range of business ethics topics, including anti-corruption, mandate for transparent disclosure of potential conflicts of interest, and a strict set of requirements regarding the exchange of gifts and hospitality with others.

Reporting concerns

We encourage anyone with concerns about potential misconduct in connection with our business activities to report them - either directly to line management, the Legal, Compliance or HR functions, anonymously via the Altera Reporting Hotline. The Reporting Hotline is a confidential and secure reporting tool administered by an independent third party that allows for the caller to remain anonymous when reporting concerns. It is accessible to Altera employees, as well as the general public, via our website.

“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.”



Responsible ship recycling

Our preferred option at the end of an asset's life is to find alternate deployment. When alternate use of the vessel is not deemed feasible, a decision to recycle the vessel may be taken as the last resort. As a ship owner, we take full “cradle to grave” accountability and have a strict audit and inspection regime for approval of the Ship Recycling Facilities (SRFs) we utilize. With adherence to all relevant rules and regulations, and to minimize risk to health and environment, we follow-up the entire recycling process until the very last vessel part has been dismantled. As part of our follow-up work, we collaborate 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, 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.

Ship Recycling Transparency Initiative (SRTI)

When Teekay Offshore became Altera Infrastructure on 24 March, we also became the newest member of the SRTI. The vision of the SRTI is one of a world where ships are recycled responsibly – socially, environmentally, and economically. It goes beyond international conventions and is setting a new norm for responsible ship recycling.

As part of the Teekay group of companies, we have been an SRTI member since March 2019, where we actively promoted responsible ship recycling. Our Altera representative remains in the SRTI steering committee for the length of the current period.

Giving back to our local communities

In Altera, we acknowledge that our business does not exist in isolation. Our key stakeholders, including employees, customers, business partners, and suppliers, as well as the local communities in which we operate in, are all affected by our activities and operations. We believe that, as a truly sustainable organisation, the way we interact with our stakeholders and communities is critical to our long-term success.

We have a responsible and proactive attitude, going beyond the minimum legal requirements, and our employees are engaged in many activities themselves. Across borders, we have a tradition of raising funds, donating to others in need, and contributing to a cleaner environment.

Some of our Corporate Social Responsibility (CSR) activities from around the world

- Beach cleaning days in several countries, including Norway and Brazil
- The donation of furniture, clothes, food, and hygiene products to various institutions in Brazil
- Various environmental initiatives related to a reduced use of plastic, including the ‘plastic soup’ campaign, driven from our Rotterdam office
- The ‘Network after prison’ project in Stavanger, in collaborative with Red Cross, where convicted persons who have completed their prison sentence are supported by a volunteer during the most critical re-integration time, directly after their release
- An in-house day at a weekend school in Rotterdam, where children between the ages of 10-14 years are provided with the opportunity to learn about what the world has to offer in terms of the labour market
- The donation of a bridge simulator to the Marine Institute of Memorial University of Newfoundland
- A donation to and participation in an ‘Appreciation Breakfast, at Rennie’s River Elementary School in St. John’s, Canada, hosted by the Kids Eat Smart Foundation of Newfoundland & Labrador
- Donations to local sports team in different regions and counties, providing them with funds for outfits and equipment
- The Heritage Class SPIRIT Award, providing a scholarship to a student enrolled in the Nautical Science or Marine Engineering programme at the Marine Institute of Memorial University of Newfoundland
- A partnership with Dream Learn Work, offering young Brazilians from less developed areas a chance for a better future through education



Bridge simulator donation

In December 2019, we had the honour of presenting a bridge simulator to the Marine Institute of Memorial University of Newfoundland. This simulator will enable our navigational officers to train in their home province and provide new training opportunities to students. It is a class A ship simulator from Kongsberg, configured around the bridge design of an offshore shuttle tanker and complete with a dynamic positioning system, the simulator is capable of recreating the operating conditions, environment and scenarios that can occur during the loading and transport of oil cargo from multiple types of offshore production installations including those present on the Grand Banks.

Providing seafarers with the opportunity to train on such a sophisticated simulator presents an enormous opportunity to improve safety for our crews and operations.



Collaboration with Dream Learn Work

Altera has established a partnership with the Rio de Janeiro based charity Dream Learn Work. The charity is a non-profit organisation, offering young Brazilians from less developed areas a chance for a better future through education, thereby also contributing to corporate recruitment needs for qualified personnel.

Many young people from poor, low-income areas in Rio lack a basic understanding of what their professional opportunities are. Often, they have few professional role models. Levels of crime and drug-trafficking are high, and youth run the risk of losing their lives and futures to opportunities for short-term gains. That is why Dream Learn Work encourages young people to choose an education and to dream of a better future through learning and work.

Through tailored events, Dream Learn Work offers professional skills development, such as vocational training at recognised educational institutions. They also organize work related activities, with the support and collaboration of corporate partners, bringing participants closer to the labour market.

Altera supports Dream Learn Work through both financial donations and access to human resources.

	2019	2018	2017
Oil production and revenue			
Total production bbl o.e ¹	21 841 211	27 053 479	35 499 872
Total revenue (mill. dollars)	1 268	1 416	1 110
Emissions of CO₂e¹			
Total emissions tCO ₂ e	1 530 708	1 722 202	1 409 141
Towing	230 785	193 141	145 223
FPSO	753 012	839 529	577 553
Shuttle	506 330	634 340	642 300
FSO	40 581	55 191	44 064
Key Performance Indicators (KPI)			
tCO ₂ e per bbl o.e1	0,03	0,03	0,02
tCO ₂ e emission per mill. dollar revenue	1 175	1 177	1 229
EEOI ⁴	23.32	26.61	24.20
Other emissions to air (tonnes)¹			
CH ₄	1 366	1 368	2 224
NmVOC ²	6 107	7 961	7 146
NO _x	10 889	10 345	13 981
SO _x	1 544	318	2 706
Fuel consumption (GJ)			
Total energy consumption	12 070 718	14 709 701	12 099 268
Diesel	584 083	977 103	208 253
Fuel gas	1 421 375	2 096 350	821 758
HFO	4 312 092	4 762 528	4 272 361
MDO	5 225 205	6 616 176	6 363 488
MGO	527 964	257 544	433 408
Flaring³ (sm³)			
Flaring (Sm ³)	35 445 767	52 278 064	20 492 725
Spills to sea			
Chemical spills, Number of	6	1	1
Chemical spills, volume (liter)	2 224.0	0.5	1.0
Oil spills, Number of	1	5	5
Oil spills, volume (liter)	0.5	769,0	56,0
Regular discharge to sea			
Oil in Water (tonnes)	5.0	2.5	1.3
Oil in Water (average ppm)	10.1	14.1	6.4
Safety⁵			
Fatalities (number of)	-	-	-
Total recordable cases (number of)	12	15	16
Total recordable cases (rate)	1.33	1.58	1.72
Lost Time Incidents (number of)	3	7	5
Lost Time Incidents (rate)	0.33	0.74	0.54

Workforce	2019
Total number of employees	2 304
Women	237 (10 %)
Men	2 067 (90 %)
Employment contract	
Permanent employees (women/men)	191 / 1759
Temporary employees (women/men)	56 / 308
Diversity	
Onshore % (women/men)	34 % / 66 %
Offshore % (women/men)	3 % / 97 %
Nationalities (%)	
Norway	26 %
Philippines	24 %
UK	20 %
Brazil	13 %
Canada	7 %
Poland	6 %
Netherlands	2 %
Other	3 %
Turnover (%)	
Onshore	
Shuttle and FSO	3.4 %
FPSO	10.5 %
Towing	4 %
Offshore	
Shuttle and FSO	2.1 %
FPSO	7.4 %
Towing	11.7 %
Training (hours)	
Full-time employees	
Women	1 425
Men	13 125
Part-time employees	
Women	149
Men	89

Notes

- 1 Ownership equity basis
- 2 Only for FPSOs worldwide and Shuttle tankers on the NCS
- 3 Only relevant for FPSOs
- 4 Only relevant for Shuttle tankers
- 5 Including contractors
- 6 CO₂e emissions are calculated following the GHG protocol and using the IPCC Global Warming Potential (GWP) values adapted from the IPCC Fifth Assessment Report (AR5). Only scope 1 CO₂e emissions are included.

Definitions

AIP	<i>Altera Production</i>	LNG	<i>Liquid Natural Gas</i>
AIS	<i>Altera Shuttle and Storage</i>	LTI	<i>Lost Time Incident</i>
ALP	<i>ALP Maritime Services BV</i>	NCS	<i>Norwegian Continental Shelf</i>
AUM	<i>Assets Under Management</i>	nmVOC	<i>non-Methane Organic Compounds</i>
Bbl	<i>Barrel</i>	NOx	<i>Nitrogen Oxides</i>
BoD	<i>Board of Directors</i>	OIM	<i>Offshore Installation Manager</i>
Boe	<i>Barrel of oil equivalent</i>	OIW	<i>Oil in (produced) water discharged to sea</i>
BU	<i>Business Unit</i>	Produced water	<i>Water that is brought to the surface during operations which extract hydrocarbons from oil and gas reservoirs</i>
CCS	<i>Carbon Capture and Storage</i>	Scope 1 GHG emissions	<i>Direct GHG emissions from operations on an ownership equity basis</i>
CO₂e	<i>The global warming potential of emitted gases as Carbon Dioxide equivalents</i>	SOx	<i>Sulphur Oxides</i>
CSR	<i>Corporate Social Responsibility</i>	Spill	<i>Accidental discharge of oil or chemicals to sea</i>
Energy consumption	<i>Energy used for power generation and heat production in combustion processes</i>	SRF	<i>Ship Recycling Facility</i>
FPSO	<i>Floating Production Storage and Offloading</i>	SRTI	<i>Sustainable Ship Recycling Initiative</i>
FSO	<i>Floating Storage and Offloading</i>	TCFD	<i>Task Force on Climate-related Financial Disclosures</i>
GHG	<i>Greenhouse Gases</i>	TRC	<i>Total Recordable Cases Includes Medical treatment injuries and Lost time Injuries for both employees and contractors. Does not include first aid cases.</i>
GHG Protocol	<i>A comprehensive global standardised frameworks to measure and manage greenhouse gas (GHG) emissions from private and public sector operations, value chains and mitigation actions</i>	TRC rate	<i>Rate of recordable cases per 1 000 000 man-hours for employees and contractors</i>
GRI	<i>Global Reporting Initiative</i>	UKCS	<i>United Kingdom Continental Shelf</i>
GWP	<i>Global Warming Potential</i>	UN SDGs	<i>United Nations Sustainable Development Goals</i>
HCI	<i>High Consequence Injuries</i>	VOC	<i>Volatile Organic Compounds</i>
HSE	<i>Health Safety and Environment</i>	VOCIC	<i>VOC Industry Cooperation</i>
IMO	<i>International Maritime Organisation</i>		
IMS	<i>Integrated Management System</i>		
IPCC	<i>Intergovernmental Panel on Climate Change</i>		
KPI	<i>Key Performance Indicator</i>		
KVOC	<i>Knutsen VOC</i>		

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