The companies in which Trafigura Group Pte. Ltd. directly or indirectly owns investments are each separate legal entities and should not be considered or construed otherwise. This report refers to: (i) certain subsidiaries over which Trafigura Group Pte. Ltd. has direct or indirect control; and (ii) certain joint venture entities and arrangements where Trafigura Group Pte. Ltd. has direct or indirect joint control; and (iii) certain other investments where Trafigura Group Pte. Ltd. has neither control nor joint control and may or may not have influence. For the avoidance of doubt, references to "Trafigura", "Trafigura Group, "the company", "the Group", "we", "us", "our" and "ourselves" may be used for convenience (not for legal) purposes to refer to Trafigura Group Pte. Ltd., its subsidiaries, and/or its joint ventures.

For more information on the way we manage sustainability, including videos and case studies, please visit: www.trafigura.com/2022SR and www.trafigura.com/sustainability.

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At the heart of global supply, Trafigura connects vital resources to power and build the world. And we make it our mission to do this responsibly. We listen to society’s needs, and we use our deep understanding of the markets we serve to make supply more efficient, secure and sustainable.
Who we are

Across our global network, we deploy infrastructure, logistics and financing to connect producers and consumers, bringing greater transparency and trust to complex supply chains. And we invest in clean energy solutions required for the energy transition to a low-carbon future. As an employee-owned company, our people are empowered and care about addressing the challenges of a rapidly changing world.

13,746
Employees

156
Countries of activity

Oil and Petroleum Products
Metals and Minerals
Power trading
Renewable energy portfolio

32
31
15
2.8 GW
Product types supplied
Product types supplied
Countries
Generation capacity

Group companies and joint ventures

impala
A joint venture owned by Trafigura and IFM Investors providing multimodal logistics. It owns and operates ports, port terminals, warehouses and transport assets.3

nyrstar
An international producer of critical metals and minerals essential for a low-carbon future.

Puma
A global energy supplier with a leading fuel retail and convenience store network. Primary downstream business segments include: retail and commercial fuels; aviation fuels; lubricants; LPG and bitumen.

TFG
A joint venture owned by Trafigura, Frontline and Golden Ocean. TFG Marine provides competitively priced, premium marine fuels at key hubs along the world’s major shipping routes.

Galena
A 50:50 joint venture between Trafigura and IFM Investors that invests in onshore wind, solar and power storage projects.

Providing investors with specialised alternative investment solutions through its investments in real assets and private equity funds.

1. Total employee numbers are calculated as an average over the financial year and include assets where Trafigura retains joint or sole management control, and for the first time in FY2022, Puma Energy.

2. Nala Renewables (50 percent owned by Trafigura).

3. Following the FY2022 year end, Impala Terminals completed the acquisition of a number of Puma Energy’s oil storage assets and now has two business units: Impala Terminals Energy Infrastructure and Impala Terminals Dry Bulk and Logistics.
Sustainability performance summary

1. This section includes an overview of our performance against our FY2021 targets, as well as key achievements and new targets set in FY2022.
2. Health and Safety data is presented on a like-for-like basis excluding Puma Energy to assess performance against targets set prior to consolidation. Puma Energy was consolidated into the Group from 30 September 2021.
3. CAHRA: areas in a state of armed conflict or fragile post-conflict as well as areas witnessing weak or non-existent governance and security, such as failed states, and widespread and systematic violations of international law, including human rights abuses.
4. Including the emissions associated with extraction and processing of non-ferrous metals.

Health and safety

Zero fatalities

We are saddened to report two workplace fatalities in FY2022. Any work-related fatality is unacceptable and we are determined to meet our goal of zero fatalities across all our operations.

To reduce the frequency of total recordable incidents

21% decrease compared to FY2021

Our total recordable case frequency reduced by 21% in FY2022 compared to FY2021 on a like-for-like basis excluding Puma Energy. Including Puma Energy, the total recordable incident rate reduced by 55 percent to 2.27 per million hours worked.

20% annual reduction in lost time incident rate

19% reduction achieved

We achieved a 19% decrease in lost time incident rate (LTIR) to 1.38 per million hours worked in FY2022 on a like-for-like basis excluding Puma Energy. Including Puma Energy for FY2022, the Group LTIR reduced by 55 percent compared to FY2021, to 0.77 per million hours worked.

Responsible value chains

To align our responsible sourcing programme for metals with the ISO 20400:2017 sustainable procurement standard by end of FY2023

95% achieved

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<th>Year</th>
<th>Percentage</th>
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<tr>
<td>2022</td>
<td>95%</td>
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<tr>
<td>2021</td>
<td>75%</td>
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<tr>
<td>2020</td>
<td>67%</td>
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At the end of FY2022, we had closed an additional 54% of remaining gaps (against a 40% target) between our current practices and applicable elements of the ISO 20400:2017 sustainable procurement guidelines and remain on track to achieve this target.

Responsible sourcing due-diligence assessments

156 assessments completed (FY2021: 145)

In FY2022, 156 counterparts were screened as part of our responsible sourcing due-diligence process, of which 89 were in conflict-affected and high-risk areas (CAHRAs). A total of 25 detailed site-based assessments were conducted.

Human rights

To obtain full alignment with the Voluntary Principles on Security and Human Rights at all Trafigura Group operations by end of FY2024

In FY2022, an external specialist security consultant assessed security contractors employed by Impala Terminals and found that contractors are on track to achieve full alignment.
To invest in renewable hydrogen projects with a total production capacity of 3GW by end of FY2030.

NEW TARGET

30% reduction in Scope 1 and Scope 2 GHG emissions by end of FY2023 compared to FY2020

- **2022**: 2.395 mtCO₂e
- **2021**: 2.724 mtCO₂e
- **2020**: 3.435 mtCO₂e

We have achieved our targeted 30% reduction in Scope 1 and Scope 2 GHG emissions one year ahead of the FY2023 target. This is equivalent to reducing our direct emissions by over one million tonnes CO₂e compared to FY2020.

To develop a renewable energy asset portfolio with a cumulative target capacity of 4GW by end of FY2025

- **2.8GW capacity at the end of FY2022**

In FY2022, we grew Nala Renewables’ portfolio pipeline to 2.8GW, a 65% increase on FY2021 and on track to meet our FY2025 target. Nala Renewables is a 50/50 joint venture between Trafigura and IFM Investors.

NEW TARGET

To progressively improve the proportion of women recruited through the Trafigura Global Graduate Programme

- **42% women in FY2022**
- **36% in FY2021**
- **26% in FY2020**

We are taking action to improve gender diversity at the recruitment phase through targeted outreach initiatives aimed at underrepresented groups within our business. In FY2022, 42% of the hired intake for the Trafigura Global Graduate Programme were women, a significant shift in the gender split compared to 26% in FY2020.
2022 was exceptionally volatile for energy and commodity markets, with impacts across the globe. Russia’s invasion of Ukraine caused a humanitarian crisis and sent shockwaves through the world’s finely balanced energy system, disrupting supply and fuelling extreme price moves.

The impact of climate change was evident in multiple extreme weather events that further disrupted supply chains and key commodity markets.

Geopolitical tensions look set to continue to exert their influence, not only for energy but also for the critical metals and minerals needed for a low-carbon economy.

Against that backdrop, our role in providing a reliable, responsible and secure supply of commodities has become more complex, more critical and more in demand than ever before.

We responded swiftly to the war in Ukraine to provide support to directly impacted employees and publicly condemned Russia’s invasion. We terminated long-term contracts to purchase oil from Russian state-owned entities in advance of European sanctions coming into effect in May and exited our sole investment in Russia – a minority stake in the Vostok Oil project - in July. The Trafigura Foundation also provided over USD2 million to charities supporting communities affected by the war.

Successive sanctions packages and embargoes imposed in response to the war and broader trade frictions have introduced significant complexity to our activities and required close cooperation between our Legal, Compliance and Commercial teams to ensure we continue to comply with applicable regulations.

Throughout the year, our teams worked hard to help customers meet their needs for key commodities amidst severe disruption and extreme price shocks.

Diversifying and securing supply of energy and raw materials has inevitably risen to the top of industry and government agendas. But it is equally clear that the urgent need to decarbonise and sustainability concerns remain a key focus. In 2022, governments in the US, EU, Australia and India amongst others passed landmark climate laws, underlining our belief that war in Ukraine will accelerate, rather than derail, the energy transition, particularly in Europe.

Responding to climate change
Addressing climate change is a key strategic focus for Trafigura. Following significant progress in reducing Scope 1 and Scope 2 greenhouse gas (GHG) emissions from our operations by 30 percent since 2020, we have revised our climate change strategy and set longer term targets. In this report, we set out a roadmap aiming for operational carbon neutrality by 2050, including a medium-term target to reduce Scope 1 and Scope 2 emissions by more than 50 percent over the next decade, compared to 2020. Our 2032 target is aligned with the Paris Agreement and a 1.5°C reduction pathway.

Customers increasingly want to know the emissions profile and carbon intensity of the commodities we supply. This is becoming an important additional service we provide and also a source of competitive advantage. Seeking to bring greater transparency to supply chain emissions allows us to help customers select lower carbon options and reduce the carbon footprint of their products and processes. Over time, we expect lower-carbon commodities to outperform emissions-intensive comparable products in terms of demand, market access and, eventually, price across a range of end-use markets.

Tracing GHG emissions from the point of raw material production through to delivery at the customer gate is a complex undertaking and we were pleased to collaborate with Palantir Technologies to develop the Agora platform, which launched in October. Using Palantir’s data analytics technology, Agora aims to increase transparency of emissions from the production, transformation and transportation of commodities. It also provides a secure means of sharing primary and third-party data across the value chain.

Decarbonising commodity supply chains
The work we have done in recent years to understand the carbon intensity of the supply chains we manage has enabled us to set a new Scope 3 upstream emissions reduction target, aligned with our commercial strategy.
By 2030, we will aim to reduce the GHG emissions intensity of the production and processing of all the non-ferrous metals we source and supply to customers globally, by 10 percent compared to 2020.

We will seek to achieve this by working with suppliers to reduce emissions at source, selecting lower-carbon producers, as well as benefiting from electricity grids becoming greener.

This target also encompasses our commitment as a founding member of the First Movers Coalition by 2030 to purchase 10 percent of our total primary aluminium from near-zero carbon producers emitting less than 3t CO2e per tonne of aluminium.

Launched at COP26 and led by the World Economic Forum and the US Government, the First Movers Coalition is an initiative to harness the purchasing power of companies to decarbonise hard-to-abate sectors, including aluminium, carbon dioxide removal and shipping.

Our commitments to the shipping sector include operating at least six zero-emissions green-ammonia fuelled vessels within our fleet by 2030 if technically feasible. We are co-sponsoring MAN Energy Solutions’ development of ammonia marine engines to facilitate this goal and with Hy2gen we are developing a major green ammonia project in Norway to supply the maritime sector.

**Decarbonising shipping**

We are also seeking to bring greater transparency and comparability of GHG emissions in the shipping sector, as founding members of the Sea Cargo Charter and the Getting to Zero coalition. In 2022, initial disclosures by 2S signatories under the Sea Cargo Charter resulted in unprecedented levels of transparency and data sharing and I am pleased to note that Trafigura’s performance is ahead of the industry decarbonisation trajectory set by the International Maritime Organisation (IMO).

Through our investments in vessel technology and operational efficiency, we made strong progress this year towards our target to reduce the carbon intensity of all shipping voyages by 25 percent by 2030, compared to our IMO benchmark.

We continue to advocate for a global levy on marine fuels to close the cost competitiveness gap between hydrocarbon and low-carbon marine fuels. Industry-wide adoption of and investment in zero-emissions fuels, vessels and infrastructure remains dependent on decisive policy and global regulation for a global industry. This is an urgent goal that we hope to see the IMO adopt with the revision of its initial GHG strategy.

**Facilitating carbon removal and nature restoration projects**

Our Carbon team grew rapidly in FY2022, bringing together people with diverse skills and backgrounds to build a differentiated carbon business. Using our expertise in managing traditional commodity supply chains, we are supporting carbon removal projects, such as the Delta Blue mangrove restoration project in Pakistan, and helping project developers access finance, manage risk and develop sustainable routes to market.

We believe that high quality carbon credits to compensate for emissions that cannot be reduced or eliminated at source are an essential tool in achieving carbon neutrality and a sustainable transition to a low-carbon global economy. High-quality projects also play an important part in restoring natural habitats and conserving biodiversity and we plan to announce further investments in the near future.

**Investing in renewable energy and low-carbon technologies**

We continue to expand our investments in renewable technologies and in clean energy sectors such as green hydrogen and ammonia, with a target of investing in renewable hydrogen projects with a total production capacity of three gigawatts by the end of 2030. In 2023, we expect to progress toward a final investment decision on a one gigawatt green hydrogen production facility in Esbjerg, Denmark, using electricity sourced from offshore wind, being developed through our H2 Energy Europe joint venture.

Our Nala Renewables joint venture is pressing ahead with a range of solar power, onshore wind and battery storage investments. The joint venture is on track to achieve its aim of building a portfolio of operating, in construction and late-stage development projects with a cumulative generating capacity of four gigawatts by 2025. To date, Nala Renewables has invested USD224 million in a range of projects and companies in Chile, the US and Europe, including a EUR30 million battery energy storage system on the site of the Nyrstar zinc smelter in Balen, Belgium that is expected to come on stream in 2023.

We made further investments in early-stage renewable technologies in 2022, including alternative fuels, long-duration energy storage technologies, research into green ammonia cracking as a carrier of hydrogen, and carbon capture and utilisation.
At the beginning of FY2023, we created a standalone Renewable Energy division that will combine our investments in renewable energy, hydrogen and our venture-capital-style clean technology fund. Through this structure we will focus on building our expertise and investments into a future commercial division as these markets develop.

At the same time, gas, power and carbon trading have been combined into a third operating division for the Group, to join Oil and Petroleum Products and Metals and Minerals.

**Responsible value chains**

Over the past several years, we have developed a robust approach to assessing and addressing human rights concerns and wider social and environmental issues associated with the origin of minerals and metals we source and supply. Responsible sourcing and supply chain due-diligence are important topics for customers, regulators and financiers and are now an integral part of our business.

The further strengthening of our Responsible Sourcing Programme in FY2022, including working with suppliers to provide training on social and environmental performance, provides a competitive advantage in securing access to resources and ensuring access to market for the commodities we move around the world. We remain committed and on track to align the programme with the international ISO standard for sustainable procurement by the end of FY2023.

Our announcement in December 2022 of an innovative sustainable supply chain finance initiative in Mexico to accelerate payments for products to suppliers to incentivise alignment with international human rights standards is a great example of the role we can play in connecting suppliers and financiers to promote good practice and improvements in environment, social and governance performance.

**Workplace safety remains a priority**

A safe workplace is fundamentally important to the sustainability of our business. While we made significant progress in reducing the frequency of lost-time injuries across the Group in 2022, I am saddened to report two workplace fatalities at our Catalina Huanca mine in Peru. Any work-related fatality is unacceptable. We continue to strive to eliminate serious incidents from our workplaces and we are determined to meet our goal of zero fatalities across all our operations.

Given our involvement in transporting substantial volumes of commodities over long distances by road, the prevention of road traffic accidents is a priority. Over the past two years, we have invested in in-vehicle monitoring systems and improved real-time monitoring of contractor and driver performance across our business, with the aim of improving road safety. This will continue to be a focus for our operational management teams in 2023.

**A high performing and diverse workforce**

Our company is owned solely and entirely by over 1,100 current employees. This ownership model is a unique element of our culture that means our people are motivated to grow and preserve the long-term value of the business. We build teams that are highly skilled, productive, diverse and collaborative and that align with our corporate culture. These factors are key to our success. We have over 80 nationalities represented amongst our workforce and we value the ethnic and cultural diversity this brings.

However, we recognise that, despite improvements in our gender diversity in FY2022, we have further progress to make in some business areas. An example is our efforts to attract more women into a career in commodities trading through our Global Graduate Programme, where we have significantly increased the proportional intake of women, from 26 percent in 2020 to 42 percent in 2022.

**Sustainability governance**

We have robust governance structures and management systems, that support compliance and our efforts to address the environmental and social risks associated with our activities. In 2021, we launched a revised sustainability governance structure that has brought more focused direction at Board level and greater oversight and involvement at Senior Management level in the Group’s health and safety, environmental and social performance and has enabled greater sharing of good practice, common risks and challenges. To further strengthen our commitments and approach, we are undertaking a comprehensive review of our policy framework in 2023.

In conclusion, I am pleased to note the improvements we have made in 2022 in evolving our business to meet the changing requirements of our customers in an increasingly complex world. I look forward to reporting on our progress in 2023.
Delta Blue Carbon, the world’s largest mangrove restoration project, south-east Pakistan.
Our business

Responsibly connecting the world's resources

As a leading participant of the global commodities industry, the scale and breadth of our business means that we interact with a wide range of counterparties and stakeholders throughout the value chain. Our business is centred around the following three core areas of activity:

Managing commodity supply chains

We recognise the crucial role we play as a leading commodity purchaser and supplier in providing resilient and responsible supply chains for critical resources and energy. Our core business is sourcing and supplying commodities, including non-ferrous metal concentrates and refined metals, bulk commodities, oil and petroleum products and power to customers globally. We manage complex supply chains and logistics efficiently and responsibly to connect producers and consumers while providing the commodities required for access to energy, mobility, industrial production and daily life.

We play an important role in facilitating new sources of supply of critical minerals required for the energy transition, connecting producers to global markets and sources of capital, and in developing new markets, technologies and sources of energy that will be required for a low-carbon world.

We are also bringing greater transparency to commodity supply chains. This includes providing supply chain due-diligence for downstream customers and financiers, and helping to measure, verify and ultimately reduce greenhouse gas (GHG) emissions associated with the extraction, processing and transportation of the commodities we supply.

Owning and operating assets

We own and operate or invest in mines, ports, terminals, storage facilities, smelters and refineries, renewable power generation and battery energy storage facilities, directly, through joint ventures or as a minority investor. The assets we invest in typically form part of the supply chains we manage on behalf of our global customers. We also own, operate and lease a fleet of tankers, bulk, container and gas carrier vessels that are essential to the global supply of commodities as the most efficient means of transportation over long distances.

We operate our assets in accordance with strict health, safety, environmental and community performance standards, and seek to comply with applicable laws and regulations. The safety of our employees and contractors at our assets is of the utmost importance and we have established leadership, behavioural, and change management programmes that support our safety culture.

Engaging with stakeholders

We play a fundamental role in the global commodities industry and we collaborate with other value chain actors in order to promote sustainable growth. We work with governments, regulators, non-profit and charitable organisations, financial institutions, industry bodies and other companies to advocate for a just energy transition and responsible supply chains.

We believe that commercially-appropriate transparency is important in building trust with stakeholders and we see open and constructive dialogue and engagement with stakeholders as a vital element of responsible business. We disclose information through our Annual Report, Sustainability Report, website, other publications, and our submissions to recognised leading international bodies such as the Extractives Industries Transparency Initiative (EITI). And we participate in many industry associations, multi-stakeholder initiatives, and industry events that provide opportunities to share and communicate our approach while engaging and learning from others.

For more information on the way we manage sustainability, including videos and case studies, please visit www.trafigura.com/sustainability.
Identifying our material topics

Every year we conduct a materiality assessment to identify and understand the range of environmental, social and governance (ESG) risks and opportunities relevant to our business from both the perspective of our organisation and from that of our stakeholders. Our assessment enables us to prioritise our most material topics, set targets and key performance indicators for improvement that shape our sustainability approach and the content of this report.

Our materiality process draws on a wide range of stakeholder engagement inputs, including multi-stakeholder forums, interviews, surveys, bi-lateral meetings and regular interaction throughout the financial year. Stakeholders include commercial counterparts, financial institutions, investors, governments, non-governmental organisations, industry peers, educational institutions, local communities and our employees.

To obtain a further external perspective, we conducted an analysis to identify the key topics most frequently and widely reported in the media and those that generated the most engagement on social media platforms.

We looked at topics regularly reported on by our peers within our own industry, various voluntary reporting frameworks (including GRI, SASB, WEF and TFCD), ESG-ratings organisations (such as Sustainalytics and CDP) and regulatory frameworks that outline general regulations and standards in the jurisdictions in which the Group operates.

All topics identified were subsequently analysed and discussed at length through a series of interviews with senior managers from key functions across the business. Through our assessment, the below nine material topics were identified.

Materiality assessment process

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<tr>
<th>STEP 1</th>
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<tr>
<td>✓ Multi-stakeholder forums</td>
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<td>✓ Consultations with senior managers from key business functions</td>
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<table>
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<th>OUTCOME</th>
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<td>✓ Climate change</td>
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<td>✓ Human rights</td>
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<tr>
<td>✓ Responsible value chains</td>
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<tr>
<td>✓ Our people</td>
<td></td>
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<tr>
<td>✓ Local communities</td>
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<td>✓ Environment</td>
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<tr>
<td>✓ Compliance and conduct</td>
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<td>✓ Transparency and engagement</td>
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Our contribution to the United Nations Sustainable Development Goals

The UN Sustainable Development Goals (SDGs) set a global framework for countries, businesses, and other stakeholders to address society’s most important challenges.

Our approach to the SDGs is to focus on where we have greatest impact across our three core business activities. Although our business touches the majority of the SDGs, our sphere of influence is most aligned to SDGs 3, 7, 8, 9, 12, 13, 16 and 17.
Our approach

Governance and policy framework

We have governance structures and risk management systems which seek to address a wide range of operational, financial, political, social and environmental risks.

Further details of our governance structure are available in the 2022 Trafigura Annual Report: www.trafigura.com/2022AR

We recognise the critical importance of conducting our business and operations responsibly, demonstrating integrity, professionalism and diligence at all times.

Our governance structure, management systems and associated policy framework are designed to support our efforts to comply with applicable laws and regulations. They also establish the high standards of professional behaviour, integrity and diligence expected from staff.

Responsible corporate governance

Trafigura has a flat governance structure with short and direct channels of communication, clear delineation and segregation of responsibilities and personal accountability. The principal oversight body is the Board of Directors which provides overall strategic direction for the risk management structure and policy framework. The Management Committee is responsible for the execution of the business strategy, the day-to-day management of commercial and financial activities, and our investment portfolio. There are four Board sub-Committees covering, Audit, Compliance, Nomination and Remuneration, and ESG.

The Compliance Committee oversees and monitors Senior Managements implementation of the processes and controls necessary to comply with applicable laws and regulations are implemented, in addition to the requirements of all employees set out in our Code of Business Conduct and supporting policies.

The ESG Committee oversees and monitors Senior Managements strategy for sustainability performance, supported by the Operational HSEC Steering Committee and Commercial ESG Steering Committee.
ESG Committee

The ESG Committee is chaired by the Group’s Executive Chairman and Chief Executive Officer Jeremy Weir, along with one executive director (Jose Larocca) and two non-executive directors (Andrew Vickerman and Pierre Lorinet). This committee oversees and provides strategic direction in respect of the Group’s sustainability strategy and the ESG policy framework. It provides Board-level engagement and input into ESG matters. The Committee receives regular updates from senior managers across the business on health, safety, environment, and community (HSEC) matters, social performance, responsible value chains, and climate change strategy. The ESG Committee and Operational HSEC and Commercial ESG Steering Committees regularly receive presentations from internal and external subject matter experts to stay abreast of emerging ESG expectations, policies, and leading practices.

In 2022, the ESG Committee met on three occasions and addressed the following topics, amongst others:

- Reviewed HSEC performance and progress against strategy and targets.
- Reviewed output from the HSEC Steering Committee and Commercial ESG Steering Committee.
- Considered Senior Management’s approach on investment proposals for measures such as improving road safety associated with trucking activities, establishing our internal carbon calculator and the extension of our responsible value chains programme;
- Considered Senior Management’s proposals on Group-wide ESG related objectives, including GHG targets covering Scope 3 emissions and a transition pathway to carbon neutrality.

Commercial ESG and Operational HSEC Steering Committees

The Commercial ESG and Operational HSEC Steering Committees are mandated by the Board to oversee:

- The interface ESG issues with the commercial management of the business; and
- The HSEC risks associated with the Group’s operations, and ensure that the associated policies, standards and programmes are adopted and appropriately implemented.

These steering committees enable discussions to be more targeted, efficient, and directly relevant to how we operate. Each of the steering committees are led by a member of the Management Committee to enhance senior management oversight and engagement with key HSEC, supply chain and responsibility issues relating to the Trafigura Group.

Setting standards:
Sustainability policy framework

In FY2022, we initiated a process of reviewing our sustainability policy framework to ensure we have a consistent, clear and comprehensive approach to articulating the standards we apply to ourselves and expect of others. This review, led by the Commercial ESG Steering Committee, will include extensive engagement across functional and divisional leaders, and an evaluation of relevant international standards and stakeholder expectations. We will report on the implementation of the revised ESG policy framework in our FY2023 Sustainability Report.

Commercial ESG Steering Committee

Key updates in FY2022

1. Made recommendations to the Board ESG Committee on climate change strategy, including approach to Scope 3 supply chain emissions and transition pathway to carbon neutrality
2. Reviewed sustainability policies and established a process for the development of a revised Group-wide ESG policy framework, to be developed following a comprehensive engagement across functions in FY2023
3. Evaluated progress against responsible value chain targets, and alignment with the international sustainable procurement standard ISO 20400:2017

Operational HSEC Steering Committee

Key updates in FY2022

1. Established a consistent approach to evaluating and mitigating risk, through implementing a common HSEC risk framework across all assets, operating companies and divisions
2. Improved the sharing of good practice across the Group through, for example, collaboration on HSEC assurance audits across divisions and assets
3. Reviewed proposed measures to improve road transport safety across supply chain, especially in Africa
4. Assessed implementation of workplace safety programmes evaluated progress toward HSEC targets and recommended and agreed longer-term safety targets
5. Reviewed the investigation reports of significant incidents including the two fatalities to determine any additional actions necessary as well as ensuring the lessons are learned across the whole of the Group.
**Target Progress at the end of FY2022**

**A 30% reduction in operational greenhouse gas (GHG) emissions (Scope 1 and Scope 2) by the end of FY2023, against a FY2020 baseline.**

We have achieved the 30% reduction of Scope 1 and Scope 2 emissions target in FY2022, at the end of the second year of the three-year target period.

**Full alignment of our Responsible Sourcing Programme for metals with the international sustainable procurement standard ISO 20400:2017 by the end of FY2023.**

We have closed an additional 54% of remaining gaps (against 40% yearly target) between our current practices and applicable elements of the ISO 20400:2017 guidelines.

**Growing Trafigura’s renewable power portfolio in line with 4GW generating capacity by 2025.**

We secured an additional 1.1GW of renewable energy in FY2022, compared to 1.7GW in FY2021 bringing the pipeline portfolio total to 2.8GW.

**The implementation of the Voluntary Principles on Security and Human Rights at all Group sites where security contractors are directly contracted by Trafigura entities by the end of FY2024.**

Progress towards implementation is on track at end of FY2022.

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**Sustainability-Linked Loans**

We closed our first sustainability-linked loan (SLL) in March 2021, since which we have closed on four other financing agreements as SLLs, with a total value of over USD9 billion, placed with over 100 financial institutions.

**Sustainability-linked loan deals as at FY2022:**

- **European Revolving Credit Facility (ERCF):** March 2021, raised USD5.5 billion and refinanced in March 2022 at USD5.295 billion across 55 financial institutions;
- **Asian Revolving Credit Facility (ARCF) and Term Loan Facilities (TLF):** October 2021, USD2.4 billion (equivalent) across 36 financial institutions;
- **US Private Placement transaction (USPP):** April 2021, raised USD203.5 million of financing across eight financial institutions;
- **Samurai loan:** March 2022, refinancing of loan credit facility USD790 million (equivalent) across 22 financial institutions.

Each SLL is linked to targets set against key performance indicators ("KPIs") to improve Trafigura’s sustainability performance, aligned with the material issues for its business. Progress towards each target is evaluated on an annual basis and this is verified by a third-party expert. A penalty or discount on the margin will be applied, depending on the number of targets met each year. The four sustainability performance targets applicable to the Trafigura SLLs are provided below, along with progress made towards these targets as at the end of FY2022. Further details of the progress made for each KPI is provided in the relevant section of this report.
We are committed to operating in compliance with applicable laws and regulations. We apply a range of recognised international standards across our global business activities.

Our compliance programme
We maintain a robust compliance culture in which all staff recognise their personal and collective responsibility. Our compliance activities globally are overseen and managed through our central Compliance Department. We operate well-established compliance policies and procedures and have a robust governance structure in place, with the Chief Compliance Officer reporting directly to the Group Chief Operating Officer and the Group Compliance Committee.

As part of our commitment to continual improvement, we undertake an annual consultation exercise with external lawyers in more than 30 countries where we have a physical presence to ensure our global compliance programme meets specific local requirements in the various jurisdictions where we operate.

The level of engagement with the Compliance Department in Trafigura is very strong. The department communicates frequently, clearly and rapidly in response to developments that impact markets and trading operations with senior management and impacted trading desks. The success of this engagement was demonstrated by a culture survey undertaken in FY2021 to assess the perceptions and experiences of our employees of our compliance programme. This recorded very high positive employee experience levels, with an average positive score of 98 percent across the business. Each year we create a series of regional action plans to further strengthen the programme.

Know Your Counterparty compliance checks undertaken

9,229 checks

We continued to improve our Know Your Counterparty (KYC) monitoring and assessment process.

Completion of compliance training by new and existing staff

98% completed

We developed and rolled out additional online training modules and maintained exceptionally high completion rates for training at 98%. The total number of compliance training courses completed in FY2022 was 9,842.
The high standard of behaviour we expect is enshrined in our Code of Business Conduct (the Code), which sets out the internationally recognised good practice standards we apply across our global activities. In FY2022, we updated and reissued the Code to ensure it remains relevant to the business. The Code sets out the behavioural expectations that we have for our businesses and our people. It is supplemented by the Group’s Compliance Policies that provide concise and practical guidance on the correct approach to a variety of day-to-day situations in five key areas: Trading behaviours and business communications; anti-bribery and corruption; anti-money laundering; global competition standards; and sanctioned and high-risk jurisdictions. Everybody who joins Trafigura makes a commitment to operate in compliance with the standards set by the Code and failure to do so can result in serious disciplinary action.

Sanctions and trade controls
Over the past 12 months, the regulations relating to trade sanctions have developed rapidly in response to the crisis in Ukraine. Whereas in prior years, a sanction change that could have a material impact on our business would typically occur every four to six months, for most of FY2022, these were often occurring every few weeks. To ensure we maintain compliance with all applicable sanctions, we implement a long-standing programme of controls and processes developed over many years. We have an efficient and vigilant system that over the course of FY2022 has been tested and shown to be effective in dealing with rapidly changing requirements.

Changes to rules are actively monitored by the global compliance team who follow our standard operating procedures for dealing with developments related to sanctions. Notifications of changes to rules are received directly from regulatory authorities. We retain external legal advisors globally who are sanctions specialists to provide support and a wider industry viewpoint on the implications of changes as required.
Our approach to counterparty due-diligence

Key to the assessment of counterparties is the Know Your Counterparty (KYC) onboarding and monitoring processes. We have made improvements to our KYC approach by using technology to automate the process of reviewing and monitoring counterparties and identifying those that are high-risk quicker and with greater accuracy. This has enabled the end-to-end automation of standard counterparty due-diligence processes for many new counterparty trading relationship requests.

In FY2022, we carried out 9,229 KYC checks (FY2021: 7,541). Of the counterparties assessed, 1,733 (18.6 percent) were initially declined. On further review and through communication with the relevant counterparty, this ultimately resulted in 685 counterparties (7.4 percent) being refused and 8,544 (92.6 percent) being approved.

The growing importance of vessel screening

Regulators and industry participants have been increasingly focused on the real-time assessment of vessels before they are chartered, loaded with material that we own or provided with bunkers. This assessment ensures that vessels we contract do not have a history of activity that may show or indicate behaviour not aligned with applicable international regulations.

In FY2022, we screened 25,417 vessels (FY2021: 22,382) as part of our vessel monitoring programme using PurpleTRAC, a specialised market-leading vessel screening service. We have built an automated screening system that allows for the immediate review of vessels and identifies any potential issues quickly and accurately. This enables us to process a high and growing number of individual vessel assessments and reduces the incidence of human error in the screening process. Approximately 10 percent of vessels are flagged by the system for further review by our Compliance Department.

Compliance training

We continue to refine and update our extensive mandatory compliance training programme to ensure that it remains relevant in a rapidly changing and evolving regulatory environment. In FY2022, we developed and rolled out additional online training modules associated with the requirements of specific exchanges (including the London Metal Exchange (LME) and Intercontinental Exchange (ICE) Europe) and a specific module on anti-market abuse for power trading.

| Compliance training carried out in FY2022 included modules on: |
|--------------------|-----------------|
| 1. Code of Business Conduct |
| 2. Anti-market abuse |
| 3. Anti-bribery and corruption |
| 4. Anti-money-laundering |
| 5. Anti-trust and competition law |
| 6. Business communications |
| 7. Exchange rules in energy markets |

We maintain a very high completion rate for our mandatory training for existing employees and for new starters, at 98 percent. The total number of compliance training courses completed in FY2022 was 9,842 (FY2021: 10,188).

Compliance training carried out in FY2022 included modules on:

9,842¹

Total mandatory compliance training courses completed by employees (FY2021: 10,188)

98%

Completion rate of mandatory compliance training in FY2022 (FY2021: 98 percent)

¹ Nyrstar runs a separate compliance training programme and its training numbers are not included in this total.
HSEC management systems

We have established a Health, Safety, Environment and Community (HSEC) Management System Framework that is aligned with accepted international good practice as represented by the ISO management system standards structure. The framework establishes the mandatory HSEC policies, principles and standards that must be adhered to across all divisions, operating companies and operational facilities over which the Trafigura Group has control, noting that our subsidiaries, including Nyrstar, Impala Terminals, Puma Energy, Nala Renewables, are responsible for their own management and performance. It also details the associated roles and responsibilities for management and employees. It provides a systematic and rigorous approach to the identification and management of risks whether related to our own operations or those of our business relationships.

Our Management System Framework follows the recognised plan-do-check-act management method used for the continuous improvement of business processes. Within these four categories, there are 14 elements within which detailed expectations are defined:

- Leadership and accountability
- Risk management
- Performance improvement planning
- Competency, training and behaviours
- Sourcing and contract management
- Communication and documentation management
- Crisis and emergency management
- Management of change
- Facilities design and construction
- Operations and management
- Incident report, investigation and analysis
- Governance and assurance
- Performance measurement and monitoring
- Management review
- Management of change

HSEC Audit Programme

Key to the way we manage HSEC is our company-wide assurance programme. This is informed by the Trafigura Environmental and Social Sensitivity Assessment (TESSA) tool which ranks all our facilities on a risk basis, taking into account inherent risks associated with the environmental, social and economic setting of the asset, the nature of the operations and activities being undertaken and the HSEC performance of the facility. High risk locations are subject to Group-led and Divisional or Operating Company assurance assessments with greater frequency than facilities that are considered to be of lower risk.

In FY2022, corporate-level HSEC assurance reviews were carried out at the Myra Falls mine in Canada due to its sensitive environmental setting and past safety performance, Porto Sudeste terminal in Brazil due to its proximity to a protected area, LASAU lubricant plant in Avellaneda, Argentina as it is located in a predominantly residential area, and the Puma Energy refinery in Nicaragua as it is a significant asset in the Trafigura Group portfolio. We have also established assurance protocols for specific operations, as well as for contractors, suppliers, and potential mergers and acquisitions.

Through our assurance programme, we ensure that all our industrial assets and operational sites are aligned with the Group HSEC Management System Framework. In addition, in FY2022, 58 percent of our industrial sites were certified to one or both international management system standards ISO 14001:2015 (environmental management) and ISO 45001:2018 (occupational health and safety management) by an independent third-party certification body.

In addition to confirming that the appropriate management systems and controls are in place to effectively identify and manage the risks, the programme emphasises the importance of sharing knowledge and propagating best practice. This is delivered through deploying audit teams with representatives from across different assets and divisions. In addition to Group-level oversight, there are many more internal audits conducted at a local level by the HSEC teams and site management. These focus on assurance of internal health, safety and environmental management processes, compliance with local regulations and other requirements to which the division or operating company subscribes, and an assessment of contractor HSE performance.
Underpinning confidence in the commodity value chain

We seek to build a trusted business. Through open and frank dialogue with stakeholders, we develop our understanding of risks, opportunities and potential impacts of our business on others.

Meaningful engagement

Our key stakeholder groups include financiers, suppliers, customers, governments, non-governmental organisations (NGOs), regulators, local communities, academic institutions, industry peers and our people. Building constructive and transparent relationships with our stakeholders strengthens our approach locally and globally and improves our overall sustainability performance.

Governments
Our activities can have a big impact on social and economic development: we connect resource producers to the global economy, invest in infrastructure, feed power generation, and fuel industry. Host governments require assurance that we operate as a responsible business partner and respect the rights and interests of their citizens.

Regulators
The framework for domestic and international regulation is continually changing. We seek to be prepared for such events and, where appropriate, contribute to public debate in developing policy areas.

Civil society organisations and NGOs
Civil society and NGOs play a critical role in encouraging social progress and environmental protection and holding companies to account. They hold up a critical lens to the commodities sector at local and international levels. We aim to develop mutually respectful and beneficial relationships with the NGO community.

International and regional media
In an age of social media and rolling news, swift and accurate information is vital. We proactively engage with the media and aim to provide relevant, accurate and timely responses to requests for information where appropriate.

Local communities
We often operate in remote and challenging locations where our activities can have a significant impact on local communities. We aim to communicate our approach consistently, manage our impacts responsibly and create opportunities for dialogue and shared value.

Existing and potential customers and counterparties
As an international commodities firm, we prosper by building enduring relationships with producers, those in the mid-stream such as fabricators and end-users. For producers, we seek to provide enhanced returns from accessing global markets; for the mid-stream and end-users, we set out to provide cost-effective supply of specific grades of commodities at a time and place that suits them.

Employees, contractors and trade unions
We seek to engage with all employees and contractors to instil a collective sense of responsibility and pride. We are committed to valuing respect, fairness, non-discrimination, equal opportunity, collective bargaining, training and development and diversity within the workplace.

Existing and potential suppliers
We work with numerous suppliers. We operate robust HSEC systems and processes and require assurance from our suppliers that they take a similar approach.

Financial institutions
Our business relies upon the liquidity financial institutions provide. Their policies are subject to intense scrutiny and increased regulation. They require assurance that our systems and processes mitigate sustainability risk and reflect internationally accepted standards.

Academic institutions
We aim to engage with academic institutions to understand emerging technologies, markets and trends that may impact the supply of commodities and global trade. We also make it our goal to improve understanding of the global commodities industry and the vital role our company plays.
Engagement through associations
We are active members of external associations and participate in a variety of initiatives with specific interest groups and other organisations. Our engagement informs improvements in our own approach and is part of our commitment to enhance the overall performance of the sector. The following are examples of the associations in which we participate.

World Economic Forum
We are a member of the World Economic Forum (WEF) and are an active member of the WEF Oil and Gas and Mining and Metals Governors communities, attending and participating in roundtable discussions held throughout the year. These discussions provide informal and efficient platforms for exchange of opinion on global strategic issues of common concern, with a focus on sustainable development and the energy transition.

First Movers Coalition
We are one of 34 founding members of the First Movers Coalition (FMC). We are advocating for industry-wide action on shipping emissions and, as part of the FMC, have committed to convert six shipping vessels (18 percent of our current owned fleet) to use zero-.emissions fuels by 2030. Read more about this in the Climate Change section on page 32.

Global Maritime Forum
Through the Global Maritime Forum we are advocating for industry-wide action on shipping emissions. We are a founding member of the Forum’s Sea Cargo Charter which aims to establish a shared methodology to collect, assess, and report on shipping emissions with the goal of building a platform needed to create industry transparency and drive change. Each year, the Sea Cargo Charter publishes annual results. In the 2022 Annual Disclosure Report, our performance was considered ‘good’. We have the most diverse vessel portfolio and the most complete set of data of all of the signatories – read more about this in the Climate Change section on page 32.

Additionally, we are a member of the Getting to Zero Coalition, through which over 200 shipping industry participants have issued a call to action for rapid action from governments to decarbonise the sector. Read more about this in the Climate Change section on page 32.

Global Business Initiative on Human Rights
Since 2017, we have been a member of the Global Business Initiative on Human Rights (GBI), which is a not-for-profit organisation led by a group of leading international corporations from different industries. The organisation provides support, opportunities to engage and a peer-learning platform for companies seeking to fulfil their responsibility to respect human rights. In FY2022, Trafigura actively participated in peer-learning meetings in both the Netherlands and the US and, in the latter, gave a detailed overview of supply and demand dynamics relevant to the energy transition and its potential impact on people in the metals supply chain.

Thought leadership, academia and publications
We believe we have an important role to play in helping to advance the sustainability agenda for the industries in which we operate. In addition to our engagement through associations, we publish research and insights in the form of white papers, podcasts, articles and videos with the aim of improving understanding of the industry and the environment in which we operate. We also regularly undertake speaking engagements at universities and industry events. Topics covered range from the energy transition, decarbonisation and responsibility, to the economy and market outlook for the sector. In FY2022, we launched white papers on the role of physical commodity markets in delivering carbon removals, the case for formalising artisanal and small-scale mined cobalt in the Democratic Republic of the Congo and on decarbonising heavy-duty trucking and accelerating the European hydrogen economy.

Commitment to decarbonising shipping and aluminium
In May 2022, we made a further commitment to the First Movers Coalition (FMC). We have joined other companies such as Ball Corporation, Ford Motor Company, Novelis and the Volvo Group as founding members of the coalition’s new aluminium sector. Along with these companies, we have committed that 10 percent of total primary aluminium purchased by 2030 will comprise near-zero carbon aluminium produced using advanced technologies not yet commercially available. This enhances our support for the decarbonisation of the sector through new technologies and producers’ ongoing efforts to move to renewable energy. This includes our low-carbon aluminium financing facility launched in 2020 to secure lower cost financing and to provide savings to producers to incentivise lower carbon production. As a Founding Member of the FMC, we are also a signatory to commitments to purchase and use zero-carbon shipping fuels by 2030.
Multi-stakeholder forum held in Johannesburg

Multi-stakeholder forums (MSFs) are an important part of Trafigura’s approach to transparency. These extended meetings allow us to engage at length with stakeholders and gain an understanding of different perspectives. Meetings encourage frank and open discussions.

In September 2022, our Johannesburg office hosted a multi-stakeholder forum. The event was co-chaired by our Head of Metals Trading for Africa and Professor Nellie Mutemeri of the University of the Witwatersrand. It incorporated a diverse range of stakeholders with a keen interest and deep knowledge of natural resources. It included representatives of the European Union, UK Government, civil society organisations such as Oxfam and Southern African Resource Watch, prominent South African universities, several of our financing banks, the World Bank and a major producer partner.

The MSF sought to navigate how the explosion in demand for base and critical minerals can better promote development and support the smooth functioning and productivity of modern economies and societies. Discussions ranged from supply and demand dynamics, the role of Trafigura in the region, existing and emerging production challenges, opportunities for regional prosperity and the capacity of supply chain actors to respond to ESG expectations and regulations.

Accelerating transition: The case for formalising artisanal and small-scale mined cobalt in the DRC

In May 2022, we published a white paper on the formalisation of ASM: “Accelerating transition: the case for formalising artisanal and small-scale mined cobalt in the DRC” – following an earlier white paper we published in 2018. Our research looks into why demand for cobalt and cobalt production is rising due to electric vehicle mobility and how this rapid growth is piling pressure on an already vulnerable supply chain that relies heavily on ASM.

Human rights violations associated with ASM in the DRC include unsafe working conditions and child labour. Both international and domestic efforts to mitigate these impacts have largely failed to deliver results that are urgently required to underpin a safe and responsible value chain. We are advocating for a safe and regulated ASM cobalt sector. We believe that it is imperative that regulatory bodies come together, in support of those efforts already made, to adopt a common set of standards, implementation processes, performance metrics and assurance protocols to ensure that only cobalt from safe and responsibly managed artisanal mine sites can reach the legitimate market. A formalised, regulated ASM sector safeguards human rights, supports the livelihoods of thousands of people, sustains a just transition and helps meet the growing need to support energy security objectives.
Participation in key external events in FY2022:

**GREENER SHIPPING: REALISING A GLOBAL AMBITION**
Topic
- Assessing challenges and opportunities to achieve shipping decarbonisation

**FT COMMODITIES ASIA SUMMIT, SINGAPORE**
Topic
- Asia’s role in the global commodity landscape

**FUTURE MINERALS SUMMIT, SAUDI ARABIA (VIRTUAL)**
Topic
- Developing resilient critical minerals supply and value chains for a clean future

**GREEN HYDROGEN GLOBAL ASSEMBLY & EXHIBITION, SPAIN**
Topics
- Enabling factors for global trade market for green hydrogen
- Feasible transport options for moving green hydrogen

**MINING INDABA, SOUTH AFRICA**
Topics
- Role of battery metals in energy transition
- Inclusive artisanal and small-scale mining

**FT HYDROGEN SUMMIT, UK**
Topics
- Empowering the EU with hydrogen
- Hydrogen as vehicle fuel

**WOMEN IN MINING AND RESOURCES (WIMAR), SINGAPORE**
Topic
- Voluntary carbon markets on the road

**CERAWEEK, US**
Topics
- Breakthroughs in nature-based solutions
- Future of carbon offsets
- Role of hydrogen fuel in decarbonised world
- Addressing critical minerals demand for energy transition
- Venture capital investments drive energy transition

**FT GLOBAL COMMODITIES SUMMIT, SWITZERLAND**
Topics
- Impact and role of shipping industry in decarbonisation journey
- Renewables in power markets
- Carbon markets and future prices
- Hydrogen – fuel for the future
- Growing biofuels

**PLATTS ASIA ENERGY TRANSITION CONFERENCE (VIRTUAL)**
Topic
- Hydrogen for heavy duty trucking: lessons learned from Europe

**WORLD ECONOMIC FORUM ANNUAL MEETING, SWITZERLAND**
Topics
- Accelerating shipping decarbonisation and global transition
- Scale-up opportunities for low-carbon technologies to enable net-zero emissions by 2050
- Moving clean hydrogen from hype to reality

**HYDROGEN MARKETS EUROPE CONFERENCE, NETHERLANDS**
Topic
- Hydrogen in transportation (road, shipping and aviation) and industry decarbonisation

**FT COMMODITIES ASIA SUMMIT, SINGAPORE**
Topic
- Asia’s role in the global commodity landscape

**FUTURE MINERALS SUMMIT, SAUDI ARABIA (VIRTUAL)**
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**HYDROGEN MARKETS EUROPE CONFERENCE, NETHERLANDS**
Topic
- Hydrogen in transportation (road, shipping and aviation) and industry decarbonisation

Payments to governments: Extractive Industries Transparency Initiative (EITI)
We seek to build confidence with all existing and prospective state-owned entities that we transact with and support these entities in seeking to maintain a trusted relationship with the wider society they serve. These aims guide our approach to transparent reporting of our dealings with governments. This is centred around our annual Payments to Government Report.

We are committed to strengthening transparency and good governance in the extractives sector. We are a longstanding supporter of the Extractive Industries Transparency Initiative (EITI). Our contribution continued throughout FY2022 as a Board member and active participant in the EITI multi-stakeholder process and contributor to various projects and committees overseen by the EITI International Secretariat.
Responsible value chains

Engaging to uphold and improve standards

We actively encourage high standards of ESG performance and transparency across the value chains that we manage – from those that we buy from to the customers we supply.

A new era

The world is moving fast towards a low-carbon future, and the metals we source and supply are crucial to this transition. Power infrastructure investment is transforming the grid to renewable electricity. Electric vehicle (EV) sales are rising rapidly worldwide. The implication of this for metals production and consumption is clear. Battery-powered EVs contain twice as much aluminium, three times as much copper and 35 times as much nickel as an internal combustion engine car. Compared to conventional thermal power, wind power uses twice as much aluminium, eight times as much nickel, nine times as much copper and 20 times as much zinc. This translates, for example, into 10 million tonnes of additional world demand for copper between 2022 and 2032 – equivalent to consumption growth double the rate seen over the last decade. In the short period between 2021 and 2025, we predict a 300 percent increase in demand for nickel and lithium for use in EV batteries.

To align our responsible sourcing programme for metals with the ISO 20400:2017 sustainable procurement standard by end of FY2023

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<th>Year</th>
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<td>2022</td>
<td>95%</td>
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<td>2021</td>
<td>75%</td>
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<td>2020</td>
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At the end of FY2022, we had closed an additional 54% of remaining gaps (against a 40% target) between our current practices and applicable elements of the ISO 20400:2017 sustainable procurement guidelines and remain on track to achieve this target.

Responsible sourcing due-diligence assessments

156 assessments completed (FY2021: 145)

In FY2022, 156 counterparts were screened as part of our responsible sourcing due-diligence process, of which 89 were in conflict-affected and high-risk areas (CAHRAs). A total of 25 detailed site-based assessments were conducted.

Transparency and engagement are not only key to identifying opportunities for progressive improvement, they are also important facets of the OECD's five-step framework for supply chain due-diligence which, in turn, provides a basis for a growing body of regulation in Europe and beyond.

Throughout FY2022, we have worked with counterparts to enhance ESG performance and to add greater granularity to our data.
A rapid increase in demand and a changing customer base for critical metals has brought further scrutiny to the origin of materials and their wider supply chain. Responsible sourcing has become a topic of key interest for downstream customers, who are growing increasingly cautious of ESG risks associated with upstream operations; banks, who are lending to finance the development of new production facilities and trade in metals; and regulators, who are setting new standards for human rights and environmental due-diligence in supply chains. Over the last 12 months, several jurisdictions have proposed or adopted mandatory human rights due-diligence legislation that requires a robust response to adverse social and environmental impacts in the supply chain. For example, recently adopted legislation in Germany, Norway and Switzerland requires in-scope companies to not only assess risks and impacts but also to remediate and report on actions taken. The European Commission also released its long-awaited Directive on Corporate Sustainability Due Diligence, the core of which will require mandatory human rights and environmental due-diligence in the future.

We are well positioned to bridge the demand gap for critical metals in the years to come through leveraging our network, knowledge of the markets, infrastructure and access to capital. We have also established the systems, processes and expertise to deliver them responsibly and to build confidence amongst buyers, financiers and regulators accordingly.
The case for formalising artisanal and small-scale mined cobalt in the DRC

In May 2022, Trafigura launched a white paper calling for urgent action to regulate and legitimise artisanal and small-scale mining of cobalt. In "Accelerating transition: the case for formalising artisanal and small-scale mined cobalt in the DRC", we outline the growing supply gap for cobalt and the vital role that artisanal small-scale mined material already plays in meeting global demand for EVs and portable electronics. We highlight the critical point that excluding ASM material from global supply chains is counter productive and ineffective, and that concerted, coordinated action is required to regulate artisanal small-scale mining in line with international standards.

In FY2021, we reported on our work with DRC state-owned enterprise, Entreprise Générale du Cobalt (EGC). EGC was launched by the DRC State to buy, process and sell cobalt produced by artisanal small-scale miners and, in so doing, to improve the socioeconomic sustainability and traceability of cobalt production in the country. We won a contract in 2019 to buy from EGC and we are currently the only company to have done so.

Developing the EGC 'Responsible Sourcing Standard' and preparing for its implementation has been at the heart of work between EGC and Trafigura this year. The EGC Standard is aligned with national law, national mining regulations and the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. At present, EGC is not operational, but we stand ready to support its ambitious plan to formalise the DRC’s ASM cobalt sector in the future.

The cobalt market needs ASM material to meet battery-powered EV demand

Stated in kt Co

Source: Trafigura research
Investing in Green Lithium

One of the advanced refinery projects in Europe involves a new partnership between Trafigura and lithium processing company, Green Lithium. As part of our initiative to link global car and battery companies to responsibly sourced metal producers, we are supporting the development of a new UK-based refinery which will supply European EV and battery manufacturers with battery-grade lithium hydroxide. Under the newly established relationship, we will supply lithium feedstock required for the planned UK-based refinery, market its hydroxide production, and invest equity in Green Lithium’s development phase funding round. In FY2022, lithium was added to our Responsible Sourcing Programme and therefore the project will be supplied with product that has been through our responsible sourcing counterparty diligence process.

The technology employed by Green Lithium uses no acid or sulphate and generates an inert waste product which can be used in the construction industry removing the need for landfill disposal. The lithium produced at the Green Lithium refinery is projected to have significantly lower carbon emissions, with six tonnes of CO$_2$e per tonne of lithium hydroxide, compared to the average of 16 tonnes of CO$_2$e per tonne of lithium produced in, for example, China. In the long term, Green Lithium is targeting to further reduce its carbon footprint down to 3.3 tonnes of CO$_2$e per tonne of lithium hydroxide with the use of renewable power and green hydrogen.

LME recognition of responsibly sourced ASM material

The importance of responsibly sourced ASM materials in the transition metals supply chain has been recognised by the LME. The EGC Standard has been approved as the first ASM cobalt production standard integrated into the LME passport, the new digital credentials register for producers of metals. Established for the maintenance of safe and strictly controlled ASM zones in the DRC, the EGC Standard was developed by EGC and its partners with support from Trafigura.

LME brands using ASM in their cobalt supply chains will now be able to disclose voluntarily their compliance with this standard. This is an important step in providing support for the formalisation of ASM and in adopting a fair and non-discriminatory approach to both ASM and large-scale mining.

https://www.trafigura.com/brochure/egc-responsible-sourcing-standard

https://greenlithium.co.uk
Building responsible value chains

We are playing a key role in the responsible sourcing of commodities, demonstrated by our approach to addressing the risk of adverse ESG impacts associated with the extraction, processing and sale of metals and minerals.

Our Responsible Sourcing Programme\(^1\) directly reflects the OECD’s Due Diligence Guidance for Responsible Supply Chains (OECD Guidance) and is aligned with relevant regulatory requirements, including Section 1502 of the US Dodd-Frank Act, the EU’s Conflict Minerals Regulation and LME regulations. The programme covers the purchase of specific metals and minerals from geographies and activities that Trafigura deems to be of greater risk.

To become and remain a supplier of metal concentrates or semi-refined metals to Trafigura, suppliers covered under the Responsible Sourcing Programme are required to:

- Respond fully, accurately and promptly to requests for information;
- Conform with Trafigura Responsible Sourcing and Supply Chain Expectations;
- Cooperate with Trafigura throughout our diligence process, making operational premises and senior staff available where necessary;
- Address issues raised and implement actions as agreed over the course of the process; and
- Share any questions, comments or feedback as the process develops.

Our Responsible Sourcing Programme is documented in detail via a comprehensive management system. Further details of the processes we adopt are available on our website.

Where a counterparty diligence assessment conducted by Trafigura indicates that there is a material misalignment between the performance of a potential or existing supplier and our own Responsible Sourcing and Supply Chain Expectations, the company may be prevented from supplying Trafigura in the future, or the relationship may be suspended until the identified risks are suitably addressed through time-bound risk mitigation plans.

In FY2022, 156 counterparty diligence reviews were initiated by our responsible sourcing team (FY2021: 145 diligence reviews). Of these, 89 counterparties were active in conflict affected and high-risk areas (CAHRAs)\(^2\) (FY2021: 95), as determined by the European Commission’s CAHRA list. We undertook 25 site-based assessments in FY2022. Over the last two years, we have assessed counterparts in 40 different countries. The top three countries were Mexico, the DRC and Bolivia.

In FY2020, Trafigura made a commitment that its Metals and Minerals trading division would progressively align with the requirements of the International Guidance on Sustainable Procurement: ISO 20400:2017. At the end of FY2022, our Responsible Sourcing Programme was externally assured by ERM CVS as having addressed a further 54 percent of the gaps identified in FY2020.

Progress in FY2022 included integrating responsible sourcing parameters in the performance appraisal process for commercial teams, upgrading the performance monitoring tracker and dashboard, defining new responsible sourcing KPIs and targets, strengthening the counterparty diligence process, rolling out training for commercial teams on responsible sourcing and delivering capacity building workshops for counterparts in the DRC and Bolivia.

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We have three goals associated with promoting responsible value chains:

1. To identify and mitigate risks to people and the environment in the supply chain

   **Objective 1:** We will uphold and promote awareness of our responsible sourcing policy and supporting programme;
   
   **Objective 2:** We will revise and enhance our responsible sourcing policy as necessary in accordance with evolving risks and stakeholder feedback;
   
   **Objective 3:** In support of our policy position, we will uphold a robust management system that aligns with international standards for sustainable procurement;
   
   **Objective 4:** We will promote enhanced risk management and the provision of information and services to those reliant on our responsible sourcing programme in a timely manner;
   
   **Objective 5:** We will conduct desk-based and site-based assessments on all suppliers of in-scope metals and minerals operating in conflict affected and high risk areas (CAHRAs)\(^2\).

2. To engage with those impacted directly and indirectly by our activities with a view to promoting positive outcomes

   **Objective 1:** We will track and seek to support performance enhancements of our suppliers against our policy expectations;
   
   **Objective 2:** We will support the activities of our suppliers as necessary in meeting our expectations through enhanced ‘Level 3’ capacity building.

3. To report transparently and provide assurance to others in the value chain where required

   **Objective 1:** We will maintain our reporting on responsible sourcing performance on an annual basis via Trafigura’s sustainability report and website.

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1. Programme valid primarily for minerals.

2. CAHRA countries are determined by the European Commission, in accordance with Regulation (EU) 2017/821, as indicated at the following website: www.cahraslist.net
Responsible sourcing targets
In FY2022, as part of our progressive alignment with ISO20400:2017, we refined and enhanced our targets in pursuit of responsible value chains as follows.

<table>
<thead>
<tr>
<th>Targets</th>
<th>Description</th>
<th>Completion Date</th>
<th>Progress (FY2022)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All new metals traders and operators will be trained on our responsible sourcing policy and supporting programme on entry to the business</td>
<td>Continual</td>
<td>100% (on-track)</td>
</tr>
<tr>
<td>2</td>
<td>We will target full alignment of Trafigura’s Responsible Sourcing Programme with applicable elements of ISO20400:2017 by an independent expert third-party assessor</td>
<td>End of FY2023</td>
<td>On-track</td>
</tr>
<tr>
<td>3</td>
<td>We will strengthen our digital infrastructure to continually improve the efficiency of our ‘Level 0’ and ‘Level 1’ diligence process</td>
<td>End of FY2023</td>
<td>In-progress</td>
</tr>
<tr>
<td>4</td>
<td>Our ‘Level 2’ site-based assessment protocol will be revised in accordance with policy amendments and stakeholder feedback</td>
<td>End of FY2023</td>
<td>To be initiated</td>
</tr>
<tr>
<td>5</td>
<td>100% of our suppliers assessed at a site-level and defined as ‘materially misaligned’ with our expectations will have an improvement plan in place within three-month period</td>
<td>Continual</td>
<td>To be reported in FY2023</td>
</tr>
<tr>
<td>6</td>
<td>100% of our suppliers visited and assessed as ‘materially misaligned’ with our expectations must demonstrate positive improvement in performance within 24-month period</td>
<td>Continual</td>
<td>To be reported in FY2023</td>
</tr>
<tr>
<td>7</td>
<td>We will establish an online awareness raising platform for our upstream suppliers relating to at least three different topics of strategic importance to our value chain. Where examples may include: • UN Guiding Principles on Business and Human Rights • Modern Slavery • Extractive Industries Transparency Initiative (EITI) • Voluntary Principles on Security and Human Rights (VPs)</td>
<td>End of FY2024</td>
<td>To be initiated</td>
</tr>
</tbody>
</table>

How our Responsible Sourcing Programme works

1. An ‘improvement’ is defined as a single level of enhancement in a counterpart’s alignment with Trafigura’s responsible sourcing expectations (i.e. their ranking moves from ‘partially aligned’ to ‘aligned’).
Capacity building in the value chain

A critical element of our responsible sourcing programme is engaging with suppliers on our expectations and their corresponding performance. Where appropriate, we engage with and provide info to assist them in addressing issues. We have developed and issued a Responsible Sourcing Due Diligence Toolkit to supplement online supplier training and familiarisation materials we released in FY2021. Intended for use by primary producers such as miners, and others active in the supply chain such as traders of third-party ores and concentrates, the toolkit is based on international good practice such as the OECD Guidance, in addition to our experience in supporting suppliers worldwide over the last decade.

Building capacity of Bolivian exporters

Trafigura purchases lead and zinc concentrates from Bolivian exporters. As is typical in the region, we are sourcing indirectly from mining cooperatives that are organised as groups of individual miners who each exploit areas of a mining concession allocated to the cooperative to which they belong. In FY2021, we extended our diligence programme to Bolivia: from understanding the risks associated with small-scale mining and determining the key improvements needed, to a focus on building capacity. Working with responsible sourcing specialists, Kumi, we implemented a programme of awareness raising and provided simple tools to improve performance, adapted to the needs and constraints of exporters and processors in Bolivia. Our supplier toolkit includes guidance on Trafigura’s expectations, simple guides on how to put in place the fundamentals of a due-diligence management system and tools and templates for suppliers to use and adapt to their own businesses.

Representatives of Trafigura and Kumi have been regularly visiting suppliers to support them in implementing the due-diligence toolkit within their operations. Using the toolkit, suppliers are supported to develop their own responsible minerals sourcing policy, map their supply chains and undertake due-diligence on their suppliers (who may be local traders or mining cooperatives). The toolkit provides both a simple supplier questionnaire and guidance on how to undertake site visits.

Despite the challenges, progress is being made. To date, 20 percent of our suppliers who have engaged in the pilot project have successfully implemented supply chain due-diligence programmes that meet our expectations. While we still have a significant amount of work to do, we remain committed to investing in the programme. Challenges to progress have included the fact that we are several tiers removed from the negative impacts that concern us, the general lack of awareness amongst suppliers of good practice, and the reality that we are the first buyers to impress upon suppliers the importance of responsible sourcing diligence. We will continue to engage with mining cooperatives in Bolivia to build their capacity and provide support, as required, to ensure a secure and sustainable supply.

Building capacity

In FY2022, we supported 16 counterparts through providing capacity building. An example of which is a mining company that was considered materially misaligned with our supplier expectations when first assessed in FY2021, mainly due to sourcing practices that were deemed to be insufficiently controlled. In partnership with the NGO Pact, we supported the counterpart to build their responsible sourcing management system and to train their staff. In FY2022, the counterpart committed to and delivered against full traceability. We have consequently re-assessed the company as ‘aligned’ with our expectations and we perform regular monitoring visits to ensure ongoing compliance. Furthermore, the counterpart has agreed to embark on a two-year programme to align with the Responsible Mineral Initiative’s (RMI) Risk Readiness Assessment (RRA) criteria.
Helping transform the world’s largest cobalt production project under construction and supporting the delivery of positive impacts on the ground

We are investing in the Democratic Republic of the Congo (DRC) to secure a reliable and sustainable supply of cobalt. In FY2019, Trafigura signed a USD600 million financing facility with Chemaf Resources, a leading vertically integrated copper and cobalt producer, to complete the world’s largest cobalt production project currently under construction. This pre-financing of production will secure Chemaf’s role as a key supplier of copper and cobalt for the energy transition.

Our role extends beyond the provision of finance and product off-take. We have supported Chemaf since 2018 in helping address complex challenges, for example, associated with artisanal mining and, more recently, have committed to reviewing and supporting their intention to meet rigorous ESG performance standards, such as those set by the International Finance Corporation (IFC) and the OECD. Such ambitions are important in what is an increasingly reputationally sensitive market. There is a significant body of work to be undertaken. We engage with Chemaf directly through our own diligence programme and deploy expert third-parties to evaluate progress and recommend areas for improvement in Chemaf’s effort to manage social and environmental impacts at its two concessions: Mutoshi and Etoile. We are also actively engaging with our downstream customer base and financing institutions, addressing concerns about engaging in the DRC, and bridging the complex ESG realities on the ground with diverse stakeholder demands.

Our shared goal is to systematically identify and mitigate ESG risks in the supply chain, engage receivers and financiers on our efforts, and to report and provide assurance to regulators and wider stakeholders. This is building confidence gradually, but the task is considerable.

Responsible sourcing of biofuels
Using biofuels and biomass enables companies to adopt a sustainable, low-carbon energy source, provided those biofuels are renewable and responsibly sourced. The sustainability of traded biofuels is ensured through compliance with leading voluntary certification schemes. The International Sustainability and Carbon Certification (ISCC) is an international certification programme for sustainable biomass and bioenergy production. It is a multi-stakeholder initiative which is governed by an association of more than 100 members. ISCC EU can be applied to demonstrate compliance with the legal requirements of the Renewable Energy Directive (RED) and Fuel Quality Directive (FQD).

ISCC offers solutions to address the sustainability requirements for all feedstocks and markets. Traceability allows each actor throughout the supply chain to source sustainable products from any certificate holder. Trafigura holds ISCC EU and ISCC PLUS certificates, and the ISCC CORSIA (Carbon Offsetting and Reduction Scheme for International Aviation) certificate.

In addition, to ensure compliance with sustainability criteria established under national law, we hold the certificate of the Italian National Sustainability Certification Scheme for Biofuels and Bioliquids.

Our biofuel trading volumes have grown steadily year-on-year to 700,000 metric tonnes in FY2022. Key to the ongoing growth is selecting partners that can ensure a sustainable supply chain is maintained.

Contractor due-diligence and assurance
Contractors who undertake activities for us that are considered high risk from a HSEC perspective are assessed through a two-phase due-diligence process. High risk contractor activities include ship-to-ship oil transfers, the trucking of commodities, bulk oil storage and the disposal of liquid waste from vessels.

The first phase involves desk-based due-diligence that seeks to confirm the contractor’s ability to meet minimum HSEC expectations, including whether it has competent staff, sound maintenance procedures and the necessary equipment to perform its work safely. Contractors that pass this assessment may then be subject to an on-site inspection.

In FY2022, we undertook 557 contractor HESC assessments. Contractors that fail the due-diligence assessment but are willing and able to work to upgrade their processes can gain temporary approval for an interim period. Those that are unable or unwilling to improve are rejected.
Climate change

Enabling a low-carbon future

As a leading supplier of commodities and energy globally, we have a crucial role to play in the transition to a low-carbon future. We recognise the latest scientific assessments as set out by the United Nations Intergovernmental Panel on Climate Change (IPCC) and support the climate change goals of the United Nations Framework Convention on Climate Change and the Paris Agreement. Our approach to climate change is aligned with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

30% reduction in Scope 1 and Scope 2 GHG emissions by end of FY2023 compared to FY2020

<table>
<thead>
<tr>
<th>Year</th>
<th>GHG emissions (mtCO₂e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>2,395</td>
</tr>
<tr>
<td>2021</td>
<td>2,724</td>
</tr>
<tr>
<td>2020</td>
<td>3,435</td>
</tr>
</tbody>
</table>

We have achieved our targeted 30% reduction in Scope 1 and Scope 2 GHG emissions one year ahead of the FY2023 target. This is equivalent to reducing our direct emissions by over one million tonnes CO₂e compared to FY2020.

25% reduction in GHG emissions intensity of total shipping operations by end of FY2030 compared to 2019 IMO benchmark

Total shipping emissions comprise emissions from our bareboat fleet (Scope 1) and from third-party chartered vessels (Scope 3). We have made good progress to date and have achieved an 11% reduction against our GHG emissions intensity reduction target and remain on track to achieve our target.

CDP score

B (FY2021: B)

We received a CDP score of “B” for the second year running in FY2022. A “B” score indicates that we have been judged to have addressed the environmental impacts of our business and are taking coordinated action on climate issues.

To develop a renewable energy asset portfolio with a cumulative target capacity of 4GW by end of FY2025

2.8GW capacity at the end of FY2022

In FY2022, we grew Nala Renewables’ portfolio pipeline to 2.8GW, a 65% increase on FY2021 and on track to meet our FY2025 target. Nala Renewables is a 50/50 joint venture between Trafigura and IFM Investors.

NEW TARGET

To achieve a >50% reduction in Scope 1 and Scope 2 GHG emissions by end of FY2032 compared to FY2020

This new target is based upon maintaining the 30% reduction already achieved and reducing our total direct emissions by an additional 20% by 2032.

NEW TARGET

To reduce Scope 3 upstream emissions intensity of non-ferrous metals by 10% by end of FY2030

This new target reflects our position in the commodity supply chain and our ambition to reduce the emissions intensity of the commodities we supply.

NEW TARGET

To invest in renewable hydrogen projects with a total production capacity of 3GW by end of FY2030.
Our climate strategy

Our purpose is to connect the vital resources required to power and the build the world. We supply our global customers with energy and commodities to meet today’s needs and to support the transition to low- and zero-carbon sources of energy. This includes delivering the critical minerals and metals to build infrastructure required for the energy transition. We are also investing to develop new sources of low- and zero-carbon energy, and to commercialise technologies and projects to reduce, capture and compensate for emissions. Finally, we engage regularly with governments, regulators, industry and civil society groups to provide information about the markets we operate in and to advocate for a just and fair energy transition and a level playing field for companies investing in climate-positive change.

The three pillars of our climate strategy are fully aligned with our commercial focus on maintaining Trafigura’s position as a leading supplier of vital resources today and throughout the transition to a low-carbon economy.

The three pillars of our climate strategy

Decarbonising commodity and energy supply chains

Developing new low- and zero-carbon sources of energy and carbon solutions

Engaging with stakeholders to collaborate and advocate for a just transition

Across these three pillars, we seek to:

1. Reduce emissions from our owned and operated assets; we identify and manage physical risks to our operations from climate change.
2. Work to reduce the carbon intensity of our owned and third-party chartered global shipping activities.
3. Help improve the transparency of supply chain GHG emissions to identify opportunities to reduce or avoid emissions and encourage data-sharing and collaboration between supply chain participants.
4. Work with our suppliers, logistics providers and customers to help reduce or compensate emissions generated from the extraction, processing and transportation of resources to the point of customer delivery.

1. Invest in renewable energy, low-carbon hydrogen and e-fuels, together with our joint venture and industrial collaborators.
2. Identify and help to commercialise clean energy technologies and solutions, including carbon capture, energy storage and low-carbon fuels.
3. Invest in and help develop high quality nature-based projects to remove carbon emissions of resources to the point of customer delivery.

1. Play a leading role in multi-stakeholder initiatives to decarbonise relevant industries.
2. Provide information and insights into the global markets we source from and supply to help policy-making and inform industry actions.
3. Engage in public debates and multi-stakeholder initiatives to advocate for action to accelerate the energy transition.
Decarbonising commodity supply chains

Operational GHG emissions (Scope 1 and 2)

We achieved our target through a range of measures, including:

- Increasing the amount of onsite renewable energy generation and certified green electricity we purchase from one percent in FY2020 to 31 percent in FY2022;
- Securing renewable energy guarantees of origin for green electrical energy at the Nyrstar Budel and Balen smelters. Smelting activities are by far the most carbon intensive activities undertaken across the Group. Our purchasing of Renewable Energy Certificates (RECs) is in line with RE100 Technical Criteria;
- Installing solar panels at 148 Puma Energy facilities, our Impala Terminals in Manzanillo and Huelva, our Campana Terminal and the roof of our office in Montevideo;
- Changes to our fleet profile, the implementation of energy saving devices, adopting practices to improve voyage efficiency and the use of lower carbon fuels have reduced our bareboat chartered shipping emissions by 6 percent against the FY2020 baseline;
- Our global energy efficiency campaign #GreenZone continued to motivate implementation of lower carbon initiatives. We have implemented, for example, lower energy ventilation fans, energy-saving lighting and electric forklifts, aiming for an estimated five percent reduction in energy use overall.

Reducing operational Scope 1 & 2 emissions

We own and operate industrial assets such as mining and smelting operations, oil refining, oil storage and retail facilities, metals and minerals warehousing and logistics operations. We also own, operate and charter a fleet of tanker, bulk carrier, and gas carrier vessels. We have set clear and ambitious GHG reduction targets for our industrial assets to decarbonise our operational footprint.

In FY2020, we defined a baseline for GHG emissions across all owned and operated assets with an initial target to reduce Scope 1 and Scope 2 GHG emissions by 30 percent by the end of FY2023. At the end of FY2022, we achieved a 30.3 percent reduction in GHGs, reducing emissions by over one million tonnes, meeting our initial target one year ahead of schedule. Excluding the temporary impact of reduced production at our European zinc smelters as a result of adverse market conditions, our GHG emissions have reduced by approximately 29 percent compared to FY2020.

<table>
<thead>
<tr>
<th>Year</th>
<th>GHG Emissions (tCO₂e)</th>
<th>Percentage Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2020</td>
<td>3,434,798</td>
<td></td>
</tr>
<tr>
<td>FY2021</td>
<td>2,723,896</td>
<td>-20.7%</td>
</tr>
<tr>
<td>FY2022</td>
<td>2,394,654</td>
<td>-30.3%</td>
</tr>
</tbody>
</table>

Unit: tCO₂e

1. Group FY2022 Scope 1 emissions are net of 1,742 tonnes offset and Scope 3 emissions are net of 383 tonnes offset through retiring high quality Verra projects VCUs in FY2022 to compensate business travel emissions. No offsets were purchased in FY2020.

2. Scope 2 emissions have been calculated using the market-based methodology using supplier specific emission factors and residual mixes, in line with the GHG protocol Scope 2 guidance. Our market-based Scope 2 emissions were 607,412 million tCO₂e which compares to 1,850,614 million tCO₂e if calculated using the location-based method.

3. Scope 1 and 2 emissions in FY2021 and FY2020 adjusted to reflect portfolio changes.

4. FY2022 Scope 1 emissions increased by 11% and Scope 2 emissions decreased by 36% on a year-on-year basis compared to FY2021

5. Percentage reduction against FY2020. Rebaselined to include Puma Energy, and exclude MATSA.
Pathway to carbon neutrality by 2050

In FY2022, we revised our climate strategy to set out a roadmap to achieving operational carbon neutrality by 2050 and a medium-term target to reduce Scope 1 and Scope 2 emissions by over 50 percent by FY2032, compared to FY2020. Our FY2032 target is aligned with the Paris Agreement and a 1.5°C reduction pathway for our operations.

Steps to achieve >50% reduction by FY2032

We aim to achieve our medium-term target of reducing operational Scope 1 and Scope 2 emissions by more than 50 percent compared to FY2020 by:

1. **Closing or converting carbon-intensive assets**
   Within our ten-year target period we envisage a small number of assets reaching the end of their operational lives. The closure or conversion into storage facilities of these assets contributes annual emissions savings to our medium-term target.

2. **Purchasing renewable electricity**
   We will continue to purchase renewable electricity and expect the proportion of renewable electricity available from national grids to increase over the next decade, based on public commitments and industry estimates. We will continue to invest in renewable energy at our sites.

3. **Investing in energy efficiency opportunities at our operations**
   In FY2022, we updated our marginal abatement cost curve (MACC) model to identify the most viable carbon reduction projects across the Group. Over 100 potential projects were identified across our global operations, many of which have a positive net present value and payback, while also improving efficiency and reducing energy costs. We have included a conservative estimate of reductions achievable through energy efficiency and carbon abatement initiatives in our FY2032 medium-term target.
   For example, we are installing a new 5.8MW natural gas turbine, boiler and electrical equipment module at our Bahia Blanca Refinery in Argentina, which will enable us to generate electricity from waste heat reducing the emissions intensity of products from the refinery.

4. **Introducing low-carbon vessels into our shipping fleet**
   As a founding member of the First Movers Coalition, we have committed to operate six zero-emissions vessels and purchase low-carbon marine fuels, if technically feasible, by FY2030. The introduction of low-carbon vessels into our fleet and continued efforts to reduce the carbon intensity of our bareboat and time chartered fleet will further contribute to reduce Scope 1 and Scope 2 GHG emissions over the next decade.

Steps to achieve carbon neutrality by 2050

Post 2023, we will continue to drive emission reductions across our operations. We expect to see reductions across four key areas:

5. **Energy transformation**
   Increased access to renewable electricity will enable further switching from fossil fuels to low-carbon energy sources across our operations. For instance, switching to electric machinery and site vehicles as they become available.

6. **Shipping decarbonisation**
   Continuing to decarbonise shipping – in addition to operating six zero emissions vessels by FY2030, if technically feasible. From FY2030 onwards, we will continue to drive the decarbonisation of the shipping industry through new fuels and technologies, reducing the emissions associated with our fleet as far as possible and in line with the IMO emissions reduction pathway.

7. **Technology advancements**
   The development of more efficient and paradigm shifting technology as it becomes available will achieve further decarbonisation across our operations. For example, we are assessing the potential of hydrogen as a fuel at industrial processing facilities.

8. **Offsetting residual emissions**
   While we are committed to decarbonising operational emissions there will be residual emissions, for which there is no feasible solution. We will purchase appropriate removals offsets where required, and in line with the Science Based Target Initiative net zero guidance, we will limit offsets to 10 percent of our base year emissions.
   We will continue to develop and detail our decarbonisation pathway as advancements are made in each of these key areas.

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1. Subject to a range of assumptions
Scope 3 reporting
We consider Scope 3 emissions differently from Scope 1 and Scope 2, given the methodological complexity, regulatory uncertainty and lack of direct control by Trafigura. This year we have extended our Scope 3 reporting to align with our commercial and climate strategy and our role in commodity supply chains. We will continue to review the boundaries of what we currently report. On a like-for-like basis, our Scope 3 emissions in FY2022 are 15.6 million tCO₂e compared to 14.5 million tCO₂e last year.

<table>
<thead>
<tr>
<th>Category</th>
<th>FY2022</th>
<th>FY2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1: Purchased Goods and Services</td>
<td>306,712,7151</td>
<td>–</td>
</tr>
<tr>
<td>Category 3: Fuel and energy related</td>
<td>957,513</td>
<td>1,008,166</td>
</tr>
<tr>
<td>Category 4: Upstream transportation and distribution</td>
<td>5,775,4362</td>
<td>5,601,791</td>
</tr>
<tr>
<td>Category 6: Business travel</td>
<td>11,526</td>
<td>2,838</td>
</tr>
<tr>
<td>Category 8: Upstream leased assets</td>
<td>7,086,1673</td>
<td>6,164,412</td>
</tr>
<tr>
<td>Category 10: Processing of sold products</td>
<td>3,616,9984</td>
<td>–</td>
</tr>
<tr>
<td>Category 11: Use of sold products</td>
<td>52,628,2935</td>
<td>–</td>
</tr>
<tr>
<td>Category 14: Franchises</td>
<td>32,9216</td>
<td>–</td>
</tr>
<tr>
<td>Category 15: Investments</td>
<td>1,839,679</td>
<td>1,744,481</td>
</tr>
</tbody>
</table>

1. Category 1: Purchased Goods and Services includes upstream emissions from the extraction and processing of all commodities we source from third-party producers and sell to customers, encompassing all commodities we trade.
2. Category 4: Upstream Transportation and Distribution includes emissions associated with contracted rail, trucking, barging and spot-chartered shipping.
4. Category 10: Processing of Sold Products includes downstream processing by third parties of all products that are produced or processed in our majority owned or operated assets.
5. Category 11: Use of Sold Product includes emissions associated with direct use of fuels that we have produced or processed as well as all fuel sold by Puma Energy to end users.
6. Category 14: Franchises includes company-owned dealer-operated and dealer-owned-dealer operated services stations.

Reducing Scope 3 upstream supply chain emissions
We have evaluated the carbon intensity of the critical transition metals that we trade. This involves evaluating emissions associated with all stages of the supply chain, including the various activities involved in extraction, transformation and transportation, and the consideration of factors such as government policies and planned investments in low-carbon energy and electricity supply, national climate action plans and upstream supplier emission reduction pathways.

Our analysis allows us to compare our metal supply chain emissions against those of the wider industry using external benchmarks, identify low-carbon suppliers, determine where in the supply chain we are able to best achieve emission reductions and target those markets where there are commercial opportunities associated with the supply of low-carbon commodities.

This year, we have set a new Scope 3 target to reduce the GHG intensity of all the non-ferrous metals we source and supply to customers, from extraction through to processing, by 10 percent by FY2030 compared to FY2020.

This will drive the supply of low-carbon commodities that helps our customers to reduce the carbon footprint of their products. We have set an intensity target as the volumes traded of these metals are anticipated to significantly increase to meet the demands of the energy transition.

We will achieve this by working with suppliers to reduce emissions at source, selecting lower-carbon producers as well as benefiting from electricity grids becoming greener. This target also encompasses our commitment as a founding member of the First Movers Coalition to purchase 10 percent of our total primary aluminium from near-zero carbon producers by FY2030, using technologies that are not yet commercially available.

Scope 1, Scope 2 and Scope 3 GHG emissions data assured by ERM CVS
Our GHG emissions reporting is assured by ERM CVS, an independent assurance provider, to a limited level of assurance. This includes the extended coverage of Scope 3 categories adopted this year. The assurance process included a review of activity data and the calculation of emissions at corporate and selected business unit levels. Full details of the scope, activities, limitations and conclusions of ERM CVS’ assurance engagement are included in the Assurance Statement on our website.
Carbon transparency

Our customers increasingly request visibility into the carbon intensity of the commodities we supply. Greater carbon transparency allows supply chain participants to map and manage their Scope 3 emissions, identify the carbon emissions associated with each step of the supply chain and make more informed decisions.

The complexity involved in determining the carbon footprint throughout a commodity supply chain requires collaboration across the industry. We are working to bring carbon transparency to the market through cooperation with upstream suppliers and through our relationships with technology providers, such as Palantir Technologies. We aim to take a lead on bringing greater visibility on carbon in supply chains, to the extent that we are now able to provide reliable data on the carbon footprint of commodities to the point of delivery.

Calculating supply chain GHG emissions

Our proprietary carbon calculator was developed to enable us to quantify supply chain emissions to provide customers with information about the carbon footprint of the commodities we supply. The calculation methodology is aligned with the GHG Protocol. This tool has enabled our commercial teams to plan carbon-efficient supply chains and identify potential reductions in emissions and provide carbon intensity data to customers.

Our work on developing this tool was the basis for our partnership with Palantir Technologies, the big data analytics company. Palantir’s ability to provide world-class data security and analytics together with Trafigura’s expertise in managing complex commodity supply chains led to the development and launch of Agora. The Agora platform enables companies to share and receive emissions data from operations and allows organisations to gain visibility into emissions across their supply chains using primary data where available. High-quality industry data, provided by third-party data providers such as CRU and Skarn Associates, is available to subscribers to supplement primary data with accurate estimates of emissions at every stage of the supply chain.

The Agora platform
Low carbon commodities

Reducing our operational GHG emissions and the GHG emissions of our upstream suppliers enables us to reduce the carbon footprint of metals and other commodities we supply to our customers. Through this, we are helping our customers and others in the supply chain meet their GHG reduction targets and sustainability goals.

Low-carbon zinc production in Europe

Zinc is an essential metal that, through the process of galvanisation, protects and strengthens many of the structures and appliances that are vital for electrification and for a modern and sustainable economy. In 2019, we consolidated Nyrstar into the Trafigura Group. Nyrstar is the world’s second largest refined zinc producer and a multi-metals processing firm. Producing 1.1 million tonnes of refined zinc metal annually, Nyrstar’s operations in Europe include major smelting and treatment plants in Budel in the Netherlands, Balen and Pelt in Belgium and Aubay in France.

Nyrstar has improved the energy efficiency of its zinc production, through measures such as recovery of the excess heat generated during zinc production and capital upgrades to boilers, variable speed drives, lighting and air compressors. To further reduce GHG emissions, Nyrstar has invested in its logistics processes, such as rail to bring raw materials from the Port of Antwerp to its sites, and increasing its use of barge transport. Significant reductions in GHG emissions have been achieved through increasing the amount of electricity purchased from Renewable Energy Certificates (RECs) and renewable electricity generated onsite at Kristal Solar Park. Since the beginning of 2021, Nyrstar has been purchasing electricity from renewable sources to power its facilities in Budel, Balen and Pelt.

In addition, the buffer lands surrounding Nyrstar facilities in the Netherlands and Belgium have 28MW of wind power and around 150MW (peak) of solar capacity installed. With the development of over 50MW of renewable generation capacity underway, on-site renewable peak capacity will soon exceed 200MW.

These initiatives allow Nyrstar to produce low-carbon zinc and have enabled Nyrstar to reduce Scope 1 and Scope 2 emissions by 48 percent by the end of FY2022 as well as helping Trafigura group achieving its 30 percent reduction target.

Trafigura also provides an additional service which enables customers to convert its low-carbon zinc into carbon-neutral zinc by providing high quality, nature-based carbon offsets to compensate for residual emissions that cannot be physically eliminated from the supply chain. And through our multimodal logistics subsidiary, Impala Terminals, we can provide a carbon-neutral freight service, giving customers the ability to offset transport-related GHG emissions from their cargoes.

Nyrstar zinc: a low-carbon life cycle

Carbon footprint reduction of Nyrstar’s zinc by European plant (2020 vs 2021)
Decarbonising logistics

The multimodal logistics operations at Impala Terminals in South America provide lower emission intensity alternatives to road transport for commodities in the region. We have developed infrastructure to support fluvial transportation across the entire length of the 4,880 km Paraná River, from the River Plate in Argentina to landlocked Paraguay and Bolivia. Our five pushers and 47 barges manage the transportation of 47,000 tonnes of cargo every month, avoiding the emissions and safety concerns associated with trucking this cargo over long distances.

In sub-Saharan Africa, Impala Terminals is a leading supporter of rail-based logistics in the region, operating two major long-distance rail corridors between Durban, South Africa and Lubumbashi in the Democratic Republic of the Congo (DRC), and from Lubumbashi to Dar es Salaam in Tanzania. Impala Terminals deploy rolling stock and dedicated railway sidings to support inbound and outbound transport of 20- and 40- foot containers. Rail transportation is safer, more reliable and more carbon efficient than road-based logistics. It is estimated that every train takes 29 trucks off the road and that GHG emissions are 39 percent lower when cargo travels by rail rather than by road in Africa.

In July 2022, Trafigura and our partners in the Lobito Atlantic Rail Corridor consortium were awarded the concession to refurbish and operate a near 1,300 km railway running from the Lobito port on the Atlantic coast of Angola to the border with the DRC. The Lobito Atlantic railway line will offer a western route to market for crucial energy transition metals. Shifting freight from truck to rail will significantly reduce greenhouse gas emissions, is safer and less congested or prone to delay than existing eastern and southern routes. The project is expected to require a total investment of USD450 million over a 30-year concession agreement, including a USD170 million investment in new rolling stock.
Decarbonising shipping

We are committed to the transition to zero emissions shipping and believe that the decarbonisation of shipping is an urgent and achievable goal. Our decarbonisation target set in FY2021 – a 25 percent reduction in carbon intensity by 2030 against the 2019 IMO normalised industry baseline across our entire chartering operation – reflects this commitment. This covers our total shipping emissions comprising Scope 1 and Scope 3 GHG emissions. We have made good progress to date against our GHG emissions intensity reduction target, showing an 11 percent reduction towards our 25 percent target.

Our continued progress in FY2022 towards this target included the following measures:

Vessel technology improvements – following a techno-economic analysis of potential energy saving devices, we adopted a series of technical measures to improve efficiency. This included installing Wake Equalising Duct (WED) to improve ship propulsion and performance economy by channelling the flow of water over the propeller and applying silicon-based coating to reduce water resistance on the hull of oil tankers. Similarly, we adopted ultrasonic propeller anti-fouling solutions which effectively keep the propellers clean at all times and consequently significantly reduce fuel consumption and associated emissions. We aim to extend these measures to additional vessels in 2023.

Operational efficiency – through active vessel monitoring, improved weather routing, speed optimisation, voyage planning, ensuring frequent propeller and hull cleaning to minimise friction losses and implementing new charter arrangements, we have been able to achieve immediate improvements in shipping emissions intensity.

Advocating for sector-wide action and global regulation

We are committed to decarbonising the global shipping industry as rapidly as possible. We are advocating for a global industry price on carbon for marine fuels and are investing in low-carbon fuels, green ammonia marine engines and vessels and emissions capture technologies. We are a member of the Global Maritime Forum Getting to Zero Coalition, through which over 200 shipping industry participants have issued a Call to Action for rapid action from governments to decarbonise the sector. The ambition of the Getting to Zero Coalition is to have commercially viable, zero-emission vessels operating along deep-sea trade routes by FY2030.

In October 2020, we published a white paper advocating for the IMO to impose a global price on carbon in marine fuels to create a global level playing field and enable the whole industry to transition to zero emissions as rapidly as possible. We believe the most effective structure is for a carbon levy that raises funds which can be reinvested in low-carbon fuels and infrastructure – but the level and precise nature of how any mechanism functions are secondary to the urgent need for a global price on carbon. There has been good progress since Trafigura’s white paper, with the Marshall Islands, China and Japan all publicly calling for the IMO to impose a price on carbon in different ways.

Improving transparency in the shipping sector: Sea Cargo Charter

We are a founding member of the Sea Cargo Charter, a coalition to establish a shared methodology to collect, assess and report shipping emissions in order to help build the platform needed to create industry transparency and drive change. This year, ship charterers and operators (representing over 15 percent of total bulk cargo transported by sea) publicly disclosed the alignment of their chartering activities with the ambition to reduce total GHG emissions from international shipping by at least 50 percent by 2050, a target set by the IMO. This unprecedented level of data sharing allows for a better analysis of the climate impacts of shipping activities at a granular level. It is used in the industry to back up operational and strategic decision-making with real data.

In the initial Sea Cargo Charter Annual Disclosure Report 2022, Trafigura reported one of the most diverse vessel portfolios and complete sets of data of all of the signatories. We are pleased to report that our annual activity climate alignment score was a strong overall score of -7.5 percent. This is the Sea Cargo Charter standardised measure of performance and means the voyage carbon intensity for our chartering activity in 2021, reported in the 2022 Annual Disclosure Report, is 7.5 percentage points below the required CO₂ emissions. The intensity reduction trajectory needed to meet the IMO ambition of reducing total annual GHG emissions by at least 50 percent by 2050 based on 2008 levels.

Andrea Olivi, Head of Wet Freight discusses Trafigura’s commitment to reducing the environmental impact of shipping.

www.trafigura.com/2022SR
Green ammonia as a shipping fuel and a carrier for hydrogen

We are part of a consortium of companies, Iverson eFuels, developing new production of green ammonia in the Sauda region of Norway, specifically for the shipping industry. Green ammonia is a synthetic product obtained from renewable energy sources (wind, solar, hydro or thermal) which emits zero CO₂ emissions during combustion. Together with Hy2Gen and Copenhagen Infrastructure Partners, we are investing EUR20 million in the front-end engineering and design phase, to reach a final investment decision in 2024. The project will initially produce 600 tonnes of green ammonia per day by 2027, with the ability to significantly scale up production.

To support progress in ammonia-fuelled technology, we are co-sponsoring the development of a green ammonia two-stroke marine engine by MAN Energy Solutions, which will be commercially available for large-scale ocean-going ships in 2024. We have committed to operating six green ammonia-fuelled ships within our fleet by 2030, if technically feasible.

We are also co-funding research studies focused on using green ammonia as a carrier for transporting clean hydrogen around the world. Trafigura and Amogy are undertaking a joint research effort on the viability of using industry-scale ammonia cracking technology to transport hydrogen over long distances – from regions rich in renewable power to demand hubs. We believe ammonia cracking will be a key enabling technology for the large-scale uptake of clean hydrogen.

Assessing physical climate risks

We have conducted assessments to establish the long-term risks to our operations of a changing climate. We continuously assess current hazards and consider how they may evolve so that we can adapt and improve resilience. Building on assessments undertaken in prior years, in FY2022, we undertook a physical climate change assessment in line with TCFD recommendations, to determine the key climate-related risks of our mining site located in Myra Falls, Canada. The assessment identified a projected increase in the threat of wildfires, storms, extreme heat and landslides in the future due to climate change. In this assessment, we also identified extreme cold, water stress and drought as potential physical risks to our mining operations.

The climate scenario analysis undertaken at our Myra Falls mine used climate model projections to 2030 and 2050 following ‘Shared Socioeconomic Pathway (SSP) 5-8.5’, a future scenario which assumes high greenhouse gas emissions and high levels of warming by 2100 – a plausible worst-case scenario. In workshops facilitated by external experts we discussed the hazards identified as well as potential implications. These discussions involved a range of on-site stakeholders such as engineers, maintenance and health, safety and environmental personnel to ensure the risks were relevant at the site level and reflected physical impacts that stakeholders are already observing.

We will assess six additional mining sites in FY2023 located across North America, South America and Africa, to understand actual and potential physical climate-related threats, enabling us to take effective action.
Investing in low-carbon energy and carbon solutions

We have built a presence in the fast-evolving renewables and low-carbon businesses through a series of strategic, targeted investments and joint ventures. Our total investment in renewables and clean energy projects in FY2022 was USD105 million (FY2021: USD68 million).

We also evaluate and invest in emerging low-carbon and carbon abatement technologies through our internal venture-capital-type, established to invest in early-stage disruptive renewable technologies including hydrogen power and alternative fuels, renewable energy storage technologies and carbon capture and utilisation.

Renewable power generation

Investing in renewable energy is a key part of our strategy to address climate change.

In FY2020, we established Nala Renewables as a joint venture with IFM Investors. From a small start-up, Nala Renewables now has a presence in seven countries and an experienced team with expertise across solar, wind and battery storage technologies. Our goal is for Nala Renewables to become a key power generator for the low-carbon economy. The joint venture is on track to reach our four gigawatt target by the end of FY2025, which would be sufficient to power over four million households. To date, we have invested in a range of projects in Chile, the US and Europe.

This includes constructing one of Europe’s largest battery energy storage systems at Nyrstar’s zinc smelter site at Balen, Belgium, to provide greater stability to the Belgian electricity grid.

Nala Renewables has also acquired a major portfolio of solar photovoltaic (PV) projects in Chile from renewable energy developer Solek. The portfolio includes thirteen PV projects located in five regions across Chile and Nala Renewables is looking to expand its Chilean operations with other renewables such as large utility-scale solar installations, battery solar hybrid models and potentially wind.

Renewable hydrogen

Green or renewable hydrogen, which is produced from renewable energy sources, has significant potential to accelerate the energy transition, in particular for higher energy industrial uses and long-distance transportation. We are supporting hydrogen technology and production companies by providing access to capital and leveraging our expertise and global network, with the aim of bringing their solutions to market at scale.

We have established a joint venture with H2 Energy, a Swiss company that was one of the first to deliver hydrogen fuel cell trucks to commercial users.

H2 Energy Europe

Plans to build the world’s largest green hydrogen production plant in Denmark. This 1GW production capacity facility will convert green electricity into hydrogen, with the aim of supplying zero emission fuel to the local trucking market. This project will convert the abundant wind power produced off the west coast of Denmark into up to 90,000 tonnes per year of green hydrogen. The project is expected to cost around USD1 billion and be fully operational by 2026.

Once the plant is commissioned, it is targeting one million tonnes of CO₂ emissions savings per year and supplying zero emission fuel for up to 5,000 trucks.

We have also committed to supporting H2 Energy in the development of production, storage and distribution of green hydrogen for refuelling stations and industrial customers.

Hy2gen

The German-based company brings together specialists with experience of developing, building and operating plants for the production of green hydrogen and hydrogen-based e-fuels, offering better ways to achieve CO₂-free or CO₂ neutral fuels and storage solutions. The company aims to become a leader in the hydrogen and e-fuels market for mobility and industry, areas where it is currently proving difficult to significantly reduce emissions.

C-Zero Inc.

C-Zero is a technology developer for low-carbon hydrogen production. The financing we provided will be used to build C-Zero’s first pilot plant, which is expected to be online in Q4 2023. The plant will be capable of producing up to 400 kg of hydrogen per day from natural gas with no CO₂ emissions. C-Zero’s methane pyrolysis will use natural gas to produce low-carbon hydrogen and carbon black – a product used today in the production of tyres and inks and with a wealth of prospective applications in areas such as activated carbon and building materials.

OneH2, Inc.

Headquartered in North Carolina, US, OneH2 is a provider of hydrogen fuel supply and logistics solutions. OneH2 provides scalable hydrogen fuel production systems coupled with cost-effective delivered hydrogen fuel for use in transportation markets across a growing network in North America. OneH2 currently serves the forklift market and is developing projects for the heavy truck market as well as other transportation sectors.
Clean energy technologies
We have invested in Swiss climate tech company Daphne Technology which has developed a pivotal technology for removing greenhouse gas emissions emitted by the maritime industry and other hard to decarbonise industries. Daphne Technology uses technology to remove toxic and GHG emissions such as nitrogen oxides, and methane from the combustion gas of any fuel type, including oil, LNG, biofuels, ammonia, and hydrogen. The technology breaks down pollutants, converting them into non-hazardous byproducts, which are either released into the environment or upcycled for future use. The ability to capture emissions from hydrocarbon maritime fuels and meaningfully reduce emissions in the short-term is a critical component of the industry’s transition to net zero emissions, in which multiple fuels and multiple abatement solutions will be required.

Investing in energy storage
Efficient energy storage has a critical role in the low-carbon economy. Effective storage systems are essential in integrating intermittent renewable energy into grids by aligning peaks and troughs in power generation with changing patterns of demand.

Our strategic investment in Quidnet Energy, a clean energy business, is helping to deliver a cost-effective alternative to hydro-pump storage. Quidnet’s geo-mechanical pumped storage (GPS) system is based on hydro-power principles. It pumps water underground to be stored in rock formations at high pressure. At times of high demand this is released to the surface, where it powers electricity turbines.

Malta Inc. is a leading innovator of grid-scale, long-duration energy storage. Malta’s new technology collects and stores energy from any power generation source in any location, enabling reliable and predictable operation of the grid. Based in Cambridge, Massachusetts, USA, Malta Inc. has developed a Pumped Heat Energy Storage (PHES) system to provide long-duration, large-scale, cost-effective, and safe energy storage. Malta’s system stores electricity as thermal energy and then re-generates the electricity on demand for up to 200 hours, meeting daily and weekly needs. Malta’s PHES system also generates clean heat for industrial and district heating applications.
Carbon markets
Regulated and voluntary carbon markets play an important role in the transition to a net-zero world, establishing price signals for decarbonisation investments, low- and zero-emission fuels, and valuing carbon removal sinks such as nature based and technology based solutions. We believe that high quality carbon credits are an essential aspect of the energy transition especially in industries where emissions are hard to abate or cannot otherwise be eliminated. We invest in and buy from avoidance and removals projects to generate carbon credits.

Investing in carbon removals
We believe that high quality carbon removal credits are an essential part of the energy transition, especially in industries where emissions are hard to abate or cannot otherwise be eliminated. Carbon removals projects today struggle to achieve scale due to the inherent physical, political, financing and pricing risks that accompany them. Trafigura is taking a leading role by investing to scale carbon removals across the globe with an approach that is science-based, innovative, and commercially driven. Our carbon desk has been active since April 2021, responding to customer demand while supporting investments in projects globally. We have rapidly grown a global team bringing together diverse skills and backgrounds – including policy experts, forestry engineers, GiS professionals, commercial managers and analysts from various backgrounds. We use our technical expertise in applying our rigorous project selection process and deploy our experience on the ground to assist in project development and execution.

We believe that carbon removals are a necessary tool to meet the goals of the Paris Agreement. Nature-based removals in particular go beyond sequestration of carbon to support biodiversity and local community employment and are generally positioned within the Global South. As supply chain managers, we are well-positioned to manage physical, legislative and financial risks associated with projects that generate carbon credits. We also recognise the importance of understanding operational risks associated with physical assets, policy and country risk, credit and counterparty risk, and in price risk management. This enables us to provide a differentiated offering to partners and customers alike for generation of carbon removals at scale.

Delta blue carbon, the world’s largest “blue carbon” project
Blue Carbon offsets are a powerful new nature-based solution to address climate change. The Delta Blue Carbon project demonstrates how these projects can be scaled up to deliver large-scale carbon sequestration. Mangrove forests are incredibly effective carbon sinks – studies have found that they can hold up to four times more carbon than other tropical rainforests.
Located on the south-east coast of Pakistan, Delta Blue Carbon is the largest mangrove forest restoration project in the world. The project spans 350,000 hectares – an area bigger than Luxembourg. Once a thriving ecosystem, in recent decades the mangroves were devastated by large-scale deforestation. Now, thanks to the Delta Blue Carbon project, tens of millions of mangroves have been replanted, restoring more than 73,000 hectares of degraded mangrove forests and tidal wetlands. The complex network of mangrove roots also help reduce wave energy, shielding coastal communities from the destructive forces of storms.
Trafigura is the long-term anchor offtaker of Delta Blue Carbon. The project expects to sequester an estimated 128 million tonnes of CO₂e over its 60-year lifetime. Projects such as these need to be large-scale in order to be effective and this project has demonstrated that private sector investment through the carbon markets can make a meaningful contribution to conservation and combatting climate change.

Delta Blue Carbon Project Case Study video
www.trafigura.com/video/delta-blue-carbon-project/
Hydrocarbons and the energy transition

We also recognise our role in providing the energy required today to support businesses and communities, and to build the infrastructure required for electrification and renewable energy. We recognise that a just energy transition will proceed at a different pace across the globe, with some countries and regions relying on fossil fuels for longer than others. Where we do have investments in more carbon intensive commodities, we are committed to supporting more sustainable practices within their production and supply chains, while they still remain essential resources for large parts of the world. We have committed not to invest any new equity into coal assets.

We recognise that it will take time to develop the infrastructure to supply capital-intensive industries that provide critical services to the global economy with power from renewable sources. This is particularly the case for parts of the world that already face acute challenges in accessing adequate and affordable energy supplies. For this reason, we believe that hydrocarbons, and in particular gas, still have a crucial role to play in an orderly and just energy transition and that continued investment is required to maintain these as secure, reliable and affordable sources of energy during the transition.

Climate change advocacy and leadership

We actively engage in a number of forums and organisations that aim to drive progress towards a low-carbon global economy.

We are bringing the industry together to create demand for the energy transition by taking a leadership role in our commitments, through investing in new technologies and by advocating for public policies that will bring about change.

We are active in global forums and we are investing in new technologies to help push the energy transition forward. More specifically, we are proponents of putting a price on carbon to level the playing field and help to motivate markets to proactively pursue cleaner, more renewable resources.

We are working to enable our counterparties across the various industries in which we operate to be a part of the energy transition without trying to push any one particular agenda or solution.

We are using our core expertise of trading arbitrage, deal structuring, and risk management services in a range of services to respond to climate change as a strategic priority.

First Movers Coalition

As a founding member of the First Movers Coalition, an initiative announced by President Biden in 2021 and led by Presidential Special Envoy for Climate John Kerry and the World Economic Forum, we are driving demand for zero-emissions technologies and fuels in the shipping industry and for low-carbon aluminium.

We continue to work towards our FY2021 commitment to convert six vessels, 18 percent of our current owned fleet, to use zero-emissions fuels by FY2030. We are working with MAN Energy Solutions to develop a green ammonia two-stroke maritime engine by FY2024 for new builds and for retrofitting after 2025.

In 2022, the First Movers Coalition expanded to more than 50 corporate members and launched two new sectors (carbon dioxide removal and aluminium).

As founding members of the Coalition’s new aluminium sector, we have committed that 10 percent of our total aluminium purchased by FY2030 will be near-zero carbon aluminium. This will be produced using technologies not yet commercially available and we are working to fund these new technologies.
Enhancing our natural environment

We are committed to minimising our impact on the natural environment where we operate and encouraging others to do the same. We set ambitious targets and monitor our performance so we can actively manage our environmental impact, which includes issues related to biodiversity, water, waste, spill prevention and air quality.

Environment management

All our industrial assets and operational sites are required to have environmental management systems in place aligned with the Group HSEC Management System Framework, which is developed in line with the international standard for environmental management systems, ISO14001:2015. In addition, to address customer and market requirements, 22 of our industrial facilities (58 percent excluding Puma Energy) are certified to ISO14001 by an independent third-party certification body.

We report extensively on our environmental performance and make data-driven decisions to reduce our impacts. Our new Trafigura Environmental and Social Sensitivity Assessment (TESSA) evaluates our owned industrial facilities (excluding Puma Energy) and major joint ventures. This provides visibility of the risks and impacts of our operations and helps prioritise attention to these locations, for example, by informing our HSEC assurance programme site selection process.

Using data from a range of environmental categories helps us understand the level of risk based on the locations of our assets. The environmental risks covered include:

- **Physical risks**, such as frequency and severity of earthquakes and cyclones;
- **Water stress and flood risk**, assessing the vulnerability to various water-related challenges;
- **Water resources**, including proximity of operations to water courses;
- **Biodiversity**, assessing proximity and threat to sensitive ecosystems;
- **Cultural heritage**, assessing proximity to areas of cultural heritage;
- **Built environment and populations**, determining the proximity of local communities.

Zero ‘Level 4’ and ‘Level 5’ environmental incidents

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In FY2022 six incidents were reported involving the spilling of 204,307 litres of oil, compared to two incidents and a total of 35,405 litres of spills in FY2021. Level 4 and Level 5 environmental incidents represent significant events such as a hydrocarbon spill in excess of 50 barrels.
We use this data to better understand our impact on an individual site basis and then target our resources to minimise these risks and manage them effectively. For example, using TESSA helped us to understand the hurricane risks to Impala Terminals in Mexico and the US, where experts predict that the intensity of hurricanes will increase, and take action to mitigate these risks. We have made sites more resilient to climate change related risks by adapting the terminals, so they are more resilient to high winds and heavy precipitation, and developing response plans to reduce the recovery time following a hurricane.

Protected areas
We care about protecting the natural environment and take extensive measures to mitigate the risk of negative impacts from our operations. We are committed to not exploring or operating in World Heritage sites and to respect legally designated areas of cultural or natural heritage.

Whilst none of our sites are in protected areas, one of our mines, Myra Falls, is situated within the Strathcona-Westmin Provincial Park, a Class B Park which is surrounded by – but not located in – a protected area on Vancouver Island, Canada. The mine’s Habitat Loss Mitigation Plan and Reclamation Plans are reviewed and approved by the relevant British Columbian authorities. The local government and the mine also consult with local indigenous communities, since the mine is within their traditional territories and the ship loading terminal from which mine production is exported is located on reserve land and is leased directly from the Wei Wai Kum First Nation.

We also have an additional five facilities that are less than one kilometre away from protected areas:

- Nyrstar Auby, France, within 500 metres of the Pelouses métallicoles de la plaine de la Scarpe, listed as a site of community importance under the EU Habitats Directive;
- Nyrstar Budel, Netherlands, within 500 metres of the Weerter- en Budelerbergen and Ringselven, listed as a site of community importance under the EU Habitats Directive;
- Nyrstar Hobart, Australia, within one kilometre of East Risdon State Reserve;
- Port of Huelva, Spain, within 500 metres of Estuario Del Rio Tinto, a Natura 2000 site;
- Porto Sudeste, Brazil, within 500 metres of Área De Proteção Ambiental Do Saco De Coroa Grande, an Environmental Protection Area.

We operate one site within a key biodiversity area: the Bahía Blanca refinery, which is within the Reserva de Uso Múltiple de Bahía Blanca, Bahía Falsa y Bahía Verde, Argentina, an important area for migratory birds. We have a further 10 operations situated within five kilometers of other key biodiversity areas.

We monitor, manage and mitigate the environmental risks from all our sites and proactively take steps to minimise any adverse impact. For example, before we demolished an old building at Nyrstar’s Balen site, we installed artificial swallow nests on adjacent buildings to re-house the birds that had been living in the old building.

Improving our environmental performance

Waste management and spill prevention

During FY2022, we had six Level 4 or 5 spills (i.e. spills over 50 barrels). This represents an increase from last year’s spills due to Puma Energy being included, who had four of the six significant spills. Preventing and minimising the risks inherent through spillages and releases is a key priority. The commodities we trade can pose a significant risk to the environment and local communities if not handled correctly.

Across our shipping and chartering operations, we are vigilant about minimising spills, which is a known and well managed risk in our industry and we continue to monitor and apply best practices to reduce spillages.

We proactively manage waste across all our operations, comply with relevant waste regulations and collate data on waste generation and transfers. All hazardous waste generated at our operations, including oil slops from our marine operations, is treated and disposed of safely and responsibly. All contractors handling our marine slops are reviewed under our HSE due-diligence procedure which ensures that we have visibility on the chain of custody over the transport, final treatment and disposal of the materials.

In FY2022, our operations produced 21,335 tonnes of hazardous waste and 63,324 tonnes of non-hazardous waste. This represents a substantial increase on the amount reported in FY2021 due to Puma Energy being included in the data for the first time in FY2022.

Algoa Bay multi-stakeholder workshop on oil spill preparedness

Heron Marine (the South African subsidiary of TFG Marine, a Trafigura majority-owned joint venture with Frontline and Golden Ocean) led a multi-stakeholder workshop in Algoa Bay in June 2022 to improve our oil spill preparedness during bunkering operations in the bay and enhance collaboration between the different parties involved. Chaired by Oil Spill Response Limited, more than 25 representatives attended the event, including the local Port Authorities, the South African Departments for the Environment and Maritime Safety, as well as environmental agencies, local spill response companies and representatives from local businesses. The workshop focused on learnings from previous incidents as well as industry best practice for both operations and oil spill contingency planning and response.

Whilst still a work in progress, meaningful action has been taken to improve in two key areas:

- Spill prevention, which has resulted in the upgrading of our operating practices relating to controls and communication;
- Spill response, where we are working alongside our regional contractors to provide IMO certified response training and upgraded oil containment and recovery equipment to further improve our capability to respond.

In the longer term, the learnings from this collaboration will allow Heron Marine and TFG Marine to replicate the approach and ensure a high level of response preparedness across operations in other areas of the world.
Nyrstar circularity in zinc and lead processing

In FY2022, Nyrstar became the first company certified in Australia to recycle alkaline batteries into commodity metal products for export. The recycling process allows for the complete recovery of zinc and copper metals contained in the batteries, which are captured in commodity grade metal produced by Nyrstar.

We maximise the mineral value contained in secondary feeds (industrial residues and recycled materials such as end-of-life batteries) via reprocessing loops within the Nyrstar smelter network. By-products produced at one facility are reprocessed for mineral recovery at other sites to produce commodity metal or high value secondary feeds for market. In addition, we made significant progress in promoting circularity through other initiatives in FY2022, including:

- In Port Pirie, South Australia, Nyrstar’s lead and multi-metal smelter has continued to focus on improving operations and environmental performance, establishing the facility as a recycling hub for pre- and post-consumer recycled feed materials;
- At our Hobart site in Tasmania, we completed an innovative ‘groundwater curtain’ project, which created an underground barrier that prevents around 60 tonnes of zinc from legacy contamination reaching receiving environments. This groundwater is treated and reprocessed so that the metal value is recovered, contributing to the circular economy – transforming an environmental risk into a resource;
- At our sites in Balen and Pelt in Belgium, we are investing in people and recycling technologies to support sustainable zinc production. Nyrstar’s zinc recycling installation in Pelt treats residual zinc from the steel recycling industry to produce a feed material at its European zinc smelters, with the ultimate output being pure commodity zinc products.

These initiatives make Nyrstar a leader in recycling and significant contributor to global circular economies, producing 220,000 tonnes of recycled zinc in FY2022.

Tailings storage

We regularly review our approach to tailing storage management as we seek to follow best practice. We have robust operational controls in place and undertake periodic formal integrity and safety audits at all sites, in addition to regular site inspections.

We are aligned with the principles of the Global Industry Standard on Tailings Management. We have classified all of our Tailings Storage Facilities (TSFs) in accordance with the Canadian Dam Association’s (CDA) standard safety guidelines, updated our action plans and reinforced our controls to maintain a safe operation. The CDA guidelines are recognised as one of the best available references for dam safety and they are extensively used worldwide.

We have a global committee that reviews our tailings storage practices. We comply with relevant regulations and our tailings storage facilities are audited annually by a third party as part of an independent expert review. Over the past 18 months, a functional committee of experienced tailings storage managers has met on a quarterly basis to review tailings storage risks, to standardise our approach to tailings management and to share good practice. At our most sensitive locations, we engage in real-time monitoring through the use of piezometers and slope monitoring equipment.

Mineração Morro do Ipê

Mineração Morro do Ipê is responsible for managing three inactive tailings dams. These structures are stable and safe, in accordance with strict parameters set forth in Brazilian legislation. The dams are monitored 24 hours a day, 7 days a week through the Geotechnical Monitoring Center, which monitors the readings of the various instruments installed in the dams in real time. The instrumentation includes piezometers, water level indicators, radars and seismographs, which guarantee reliability in the safety and stability of structures.

The company is also implementing a Mining Dam Emergency Response Plan (PAEBM) which, in case of any emergency situation, provides an automated audible alert system for people residing in the self-rescue zone (ZAS), plus designated safe escape routes and meeting points. Educational and awareness-raising actions are underway for the local community residing in Igarapé and São Joaquim de Bicas, including seminars and practical simulations, the objective of which is to strengthen a culture of risk prevention and management.
Water

Through the Trafigura Environmental and Social Sensitivity Assessment (TESSA), we are able to undertake an environmental risk assessment based on the World Resources Institute ‘Aqueduct’ platform that enables us to evaluate which of our sites are in water-stressed areas. We have identified six operated or owned sites that are situated in high-risk areas:

- Nyrstar Auby smelter, Hauts-de-France, France;
- Nyrstar Balen Overpelt smelter, Vlaanderen, Belgium;
- Nyrstar Budel smelter, Noord-Brabant, Netherlands;
- Trafigura Atlacomulco Terminal, Mexico;
- Impala Terminals, Dubai, UAE;
- Impala Terminals, Huelva, Spain.

Distribution of sites in water-stressed areas

- 55% Low water stress
- 9% Low to medium water stress
- 12% Medium to high water stress
- 6% High water stress
- 12% Extremely high water stress
- 6% In arid regions, but operations have low water use

To reduce water abstraction and minimise their impact on the local water supply, the Nyrstar smelters have implemented water efficiency initiatives such as harvesting rainwater and recycling water used in operations. Although in water-stressed areas, the activities at Trafigura’s Atlacomulco Terminal in Mexico and the Impala Terminals’ facilities in Huelva and Dubai have low levels of water use.

Our overall water withdrawal in FY2022 was 18,158 megalitres, representing a five percent increase on FY2021 levels. This increase was due to the inclusion of Puma Energy in FY2022 data. A total of 10,372 megalitres of water was recycled in FY2022, an increase of 41 percent on FY2021.

<table>
<thead>
<tr>
<th></th>
<th>FY2022</th>
<th>FY2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface</td>
<td>10,198</td>
<td></td>
</tr>
<tr>
<td>Ground water</td>
<td>8,238</td>
<td>6,340</td>
</tr>
<tr>
<td>Third party</td>
<td>1,620</td>
<td>6,493</td>
</tr>
</tbody>
</table>

Our Myra Falls Mine engaged in several initiatives to improve water treatment and water sampling. We purchased a second dredger for the settling ponds to allow for sludge removal in smaller ponds and then re-routed contact water to ensure low pH and high pH water streams were blended prior to the addition of lime at the water treatment system. We also started conducting pre-treatment of low pH water and reduced the fluctuation in the inflow to the treatment system, reducing lime use in our water treatment system.

Additionally, we improved our water-sampling regime at Myra Falls Mine, adding automated conductivity, pH and temperature sensors to key locations to reduce sampling field time and to improve data quality and quantity. The site’s auto-sampler is now set-up to reduce potential for contaminated samples from run-off entering the environment.

Brazil Porto Sudeste, closed-loop water recycling system

Ports and terminals that handle solid and liquid bulks pose a potential pollution risk to freshwater sources as they use a significant amount of water in their operations. In response, we designed Porto Sudeste Terminal to improve sustainability and to maximise reuse of water resources. The main objective of this project is to reduce groundwater abstraction by treating and recycling rainwater and industrial effluents, minimising the environmental impact of operations from the port terminal.

Initiatives we introduced included the reuse of treated rainwater in operational activities, such as the cleaning of machines and equipment, and in the suppression of particulate matter emissions through the use of sprinkler systems in the stockyard, car dumper, conveyor belts and in the watering of routes to suppress dust. We have also reduced the discharge of industrial effluents from port operations. As a result, we have also reduced the pressure on the water treatment system in Rio de Janeiro and reduced our demand for potable water, improving availability for the surrounding community.

In FY2021, we reused 93.5 million litres of water, corresponding to 63 percent of all industrial water use at the terminal. In FY2022, this increased to over 142 million litres, equivalent to 80 percent of the total water demand.
Ensuring a safe and healthy workplace

Protecting the health and safety of our employees, contractors and the communities within which we operate is our highest priority. We are fully committed to our goal of zero harm, with the aim that everyone goes home safe every day.

Cultivating a world-class health and safety culture

We aim to build a culture across the business in which the vital importance of safety is understood at every level of the workforce. We seek to embed health and safety objectives into the ethos of the business and maintain a culture where everyone is responsible for their own safety and those of others, and commercial objectives are never pursued at the expense of someone’s safety.

Over the past three years we have worked to apply leadership behavioural, psychological and safety culture models to create greater alignment between managers and workers, to understand the role of supervisors in delivering change, to establish visible and felt leadership on the ground and to better recognise and reward positive behaviours.

We have engaged external consultants to undertake safety culture assessments across our producing mining assets and have acted on the recommendations made.

Safety leadership in Trafigura

Over the past year we have made changes regarding safety leadership with the aim of improving safety throughout the Group. Our new HSEC governance structure is one such improvement. The Operational HSEC Steering Committee is mandated by the Board to oversee the management of health, safety, environment and community (HSEC) risks at the Group’s operations and ensure that the associated policies, standards and programmes are adopted and appropriately implemented. Led by a member of the Management Committee, the Operational HSEC Steering Committee has enhanced senior management oversight and engagement on key health and safety issues across the Group. We have introduced a new risk framework across all divisions which provides greater consistency, alignment and sharing of good practice. This ensures that leaders across each division and operating company review their key HSEC risks periodically and that material risks are elevated to senior management.

Zero fatalities

We are saddened to report two workplace fatalities in FY2022. Any work-related fatality is unacceptable and we are determined to meet our goal of zero fatalities across all our operations.

20% annual reduction in lost time incident rate

We achieved a 19% decrease in lost time incident rate (LTIR) to 1.38 per million hours worked in FY2022 on a like-for-like basis excluding Puma Energy. Including Puma Energy for FY2022, the Group LTIR reduced by 55% compared to FY2021, to 0.77 per million hours worked.

To reduce the frequency of total recordable incidents

Our total recordable case frequency reduced by 21% in FY2022 compared to FY2021 on a like-for-like basis excluding Puma Energy. Including Puma Energy, the total recordable incident rate reduced by 55 percent to 2.27 per million hours worked.

NEW TARGET

To reduce lost time incident rate by 30% by end of FY2025, including 15% reduction in FY2023, compared to FY2022.
Safety differently

Our awareness campaign, Seven Deadly Signals, has helped to reinforce a safety-first culture. This innovative and powerful campaign looks at safety differently by drawing attention to signals in the workplace which may indicate that a serious incident is more likely to happen, helping to enhance future safety performance and encourage continuous improvement across our operations.

We identified seven signals that indicate there may be increased risk of a serious, possibly fatal, incident at a site and the questions and steps that should be taken to address these situations. For example, one of the deadly signals is that only good news is being reported. Where this is occurring, we suggest our managers ask “What are your highest risks? Tell me about your last near miss.” This makes sure that all information, the good and the not so good, is being reported in a fair and accurate manner. By knowing all the facts of safety on the site, we can approach the problems head on. We also organised a follow-up campaign on the signals, creating videos by leaders around the world with more information on each signal and how to approach it in a real-world context.

<table>
<thead>
<tr>
<th>7 Deadly Signals</th>
<th>Why</th>
<th>Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 No bad news</td>
<td>Lack of negative ‘upward’ information can be an indicator that problems are not being identified, not being reported or are being smoothed over. Management may not have a true perspective of risk.</td>
<td>• Few hazards/near misses are being reported; • Few false alarms or inappropriate safety interventions occurring; • Self audits are making few significant recommendations; • Few self audits are taking place e.g. permit to work reviews; • Incident investigations are not getting to difficult root causes; • There are few cases of discipline for safety violations; • Long incident-free period.</td>
</tr>
<tr>
<td>2 Not acting on information</td>
<td>Incident prevention is based on the premise of identifying hazards/near misses and taking corrective action to prevent repeat incidents. If hazards, near misses, audit reports are not acted upon an incident is likely to occur or recur.</td>
<td>• Audit actions are overdue or their status is unknown; • Hazard and near miss reports are not being acted upon; • Decisive action is not being taken to address incident trends; • The local HSEC Committee is ineffective; • Rationalising for comfort prevalent, especially at management level; • Apathy: workers accepting the situation they find themselves in.</td>
</tr>
<tr>
<td>3 Reduced leadership presence on the work site</td>
<td>Leadership presence is arguably the single strongest factor determining safety culture and hence safety performance. The presence of leadership provides an opportunity to demonstrate commitment, receive feedback, ground test performance and reinforce best practices.</td>
<td>• Few management tours are being carried out; • Supervisors not able to effectively supervise work; • Obscure or distant locations are not being visited; • Routine and minor tasks receiving little supervisory oversight.</td>
</tr>
<tr>
<td>4 Last minute ‘organisational gain’ decision making</td>
<td>What seem like good decisions may have unintended safety consequences. Changes in work scope or schedule can result in lack of planning and risk assessment. Workers can be left to take short cuts in order to meet the demands of the task.</td>
<td>• Late changes to schedule, scope, work plans; • Supervisors have a high level of autonomy; • Decisions taken without asking about the safety implications; • Decisions are taken without consulting the workers affected.</td>
</tr>
<tr>
<td>5 Limited control over a significant proportion of workforce</td>
<td>The greater the gap between leadership and frontline workers, the less likely it is that they will display and act on the same safety values, meet expectations or consistently follow procedures or guidelines.</td>
<td>• Large contractor and subcontractor workforce; • Unclear which employee is accountable for contractors safety performance; • Contractors have a high level of autonomy; • Safety inductions and equipments checks are weak; • Contractor safety performance is not being reviewed or audited; • Activities are spread over a large geographical area.</td>
</tr>
<tr>
<td>6 Personnel changes</td>
<td>Changes in personnel can result in loss of task context knowledge, experience and competency. Replacements take time to get up to speed, may require training. This can result in loss of competency and capacity at local level.</td>
<td>• Key personnel are leaving or being replaced; • Contractors are being changed; • Competency assessment of new staff or contractors is weak; • Shift handover processes are weak or informal.</td>
</tr>
<tr>
<td>7 There is a change in activity</td>
<td>A change in activity is not always matched by a change in risk perception. New hazards may be introduced or missed, risks change and may not be sufficiently controlled.</td>
<td>• Activity is changing form routine to non-routine; • A shutdown or major maintenance is imminent; • A project is ramping-up or ramping-down.</td>
</tr>
</tbody>
</table>
Protecting our people
Our overall approach to workplace safety is:
• We aim for zero work-related fatalities;
• We seek to reduce the number and severity of incidents;
• We work to share lessons from incidents and near misses, with a view to continually improve our performance;
• We report on our safety performance and initiatives; and
• We comply with applicable laws and regulations, as well as the standards we have set for our operations.

We systematically assess leading and lagging health and safety indicators to track, monitor and report our performance on a monthly basis, to determine the effectiveness of the controls in place and to support continual improvement by undertaking investigations to identify direct causes, contributing factors and root causes of significant incidents and near misses.

Maintaining vigilance through training
Ensuring we have a safe work environment requires careful planning of activities, constant attention to operational performance and a comprehensive awareness of risks. We provide regular training on health and safety topics in order to meet these goals. This includes induction training, skills development, safety leadership training, and emergency drills and exercises.

In FY2022, a total of 405,666 hours were dedicated to HSEC training across the Group. This represents an increase on FY2021 (292,078 hours) largely due to the consolidation of Puma Energy, who have a relatively high headcount and low HSEC training needs. Excluding Puma Energy, the average HSEC training hours per person in an operational role in FY2022 was 31.6 hours compared to 31.2 in FY2021. Our mining assets undertake the most HSEC training, where each worker received an average of 49 hours of HSEC training in FY2022.
**Our safety performance**

We are saddened to report two fatalities across the Group in FY2022. Any work-related fatality is unacceptable and we are determined to meet our goal of zero fatalities across all our operations. In November 2021, an employee died due to an incident related to a conveyor belt in an underground mine, and in May 2022, a contractor died in a road traffic accident on a public road within our site boundary. Both incidents occurred at our Catalina Huanca mine in Peru.

Notwithstanding two fatalities, our safety performance measured through lagging indicators is improving. The total number of serious and fatal incidents was significantly lower in FY2022 than in FY2021.

We have experienced an improvement in Lost Time Incident Rate (LTIR) from 1.70 in FY2021 to 1.38 in FY2022. This represents 13 avoided serious injury incidents. On a similar like-for-like basis, there has been a 63 percent reduction in LTIR in the last six years. This performance compares well with our peers where the average of all the industry sectors used as a benchmark for LTIR is 1.56.

Leading indicators of safety performance are also improving. There has been a 23 percent increase in near miss reporting, which has resulted in more sharing of lessons learnt and actions being taken to prevent repeat incidents, more than 400,000 hours of HSEC training have been provided, our HSEC risk management processes have been improved and the HSEC governance structure has been enhanced.

**Trafigura Group lost time incident rate**

![Graph showing reduction in LTIR over years](img)

**63% reduction in 6 years**

**Health and safety summary report**

<table>
<thead>
<tr>
<th>KPI</th>
<th>Year</th>
<th>Group²</th>
<th>Oil &amp; Petroleum Products</th>
<th>Metals &amp; Minerals</th>
<th>Shipping &amp; Chartering</th>
<th>Trafigura Corporate</th>
<th>Impala Terminals</th>
<th>Mining</th>
<th>Nyrstar</th>
<th>Puma Energy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of fatalities (employees &amp; contractors)</td>
<td>2022</td>
<td>2021</td>
<td>2022</td>
<td>2021</td>
<td>2022</td>
<td>2021</td>
<td>2022</td>
<td>2021</td>
<td>2022</td>
<td>2021</td>
</tr>
<tr>
<td>Lost time incidents</td>
<td>70</td>
<td>85</td>
<td>7</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>13</td>
<td>16</td>
<td>28</td>
</tr>
<tr>
<td>Lost time incident rate (LTIR)</td>
<td>1.38</td>
<td>1.70</td>
<td>1.55</td>
<td>0.97</td>
<td>0</td>
<td>0</td>
<td>1.03</td>
<td>0.86</td>
<td>1.20</td>
<td>1.11</td>
</tr>
</tbody>
</table>

1. Including Nyrstar.
2. Including Nyrstar, excluding Puma Energy.
3. The data presented for Trafigura Group in this table does not include Puma Energy. Including Puma Energy, the total Group fatality frequency rate is 0.02, the total number of lost time incidents is 75 and the Group LTIR is 0.77.
Standard risk register
In FY2021, we modified our risk management approach and implemented a standard risk framework. This means that all HSEC risks are now assessed in the same way across the Group, and each asset and division has a risk register detailing their material risks. This has enabled a more systematic and consistent approach to responding to and managing risks. It is also aiding the sharing of good practice which has helped to improve understanding of risks and resulted in better collaboration. The most significant risks from each Divisions’ risk registers are escalated to the Operational HSEC Steering Committee to ensure sufficient action is being taken and adequate resources are allocated to manage the risks.

- **A** High Risk. Unacceptable, risk reduction required.
- **B** Significant Risk. Risk reduction desirable.
- **C** Medium Risk. Tolerable if as low as reasonably practicable (ALARP).
- **D** Low Risk. Broadly acceptable.

Left: Reduce incident consequences.
Down: Reduce incident frequency.

Updated safety key performance indicators and targets
Our revised Group level KPIs for FY2023 were approved by the Operational HSEC Steering Committee and apply across all Trafigura companies and divisions. Our aim is to focus on the most material risks across the business. In addition to restating our goal of zero fatalities and in order to drive a strategic approach to reducing injury frequency, we have set a three-year LTIR reduction target.

Our target is to reach a 30 percent reduction in LTIR over three years by achieving 15 percent in the first year, a further 10 percent in year two and a further five percent reduction in year three compared to the 2022 baseline year. This approach sets an ambitious target whilst acknowledging the challenge of safety performance plateauing.

In addition to our corporate level HSEC KPIs, all Group companies and divisions are encouraged to set additional and bespoke KPIs to reflect their operations and risks as well as link operational management remuneration to safety performance.

<table>
<thead>
<tr>
<th>KPI</th>
<th>Target</th>
<th>Objective of KPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of fatalities</td>
<td>0</td>
<td>Heighten efforts to achieve zero fatalities.</td>
</tr>
<tr>
<td>Lost time incident rate (LTIR)</td>
<td>Overall target of 30% reduction in LTIR over three years encompassing: a 15% reduction in LTIR to 0.65 in FY2023, a 25% reduction to 0.58 in FY2024 and a 30% reduction to 0.54 in FY2025; all compared to LTIR achieved in FY2022 baseline year (0.77 including Puma Energy).</td>
<td>Reduce the number of serious injuries, maintain clear accountability for safety and enable benchmarking of performance.</td>
</tr>
<tr>
<td>Total recordable case frequency</td>
<td>Improved reporting of total recordable incidents.</td>
<td>Improve completeness and accuracy of reporting so that a quantified reduction target can be set for FY2024.</td>
</tr>
<tr>
<td>Time to complete incident investigations of significant incidents</td>
<td>Average time to complete Level 3 incident investigation is less than 28 days.</td>
<td>More visibility of time taken to complete investigations of significant incidents (Level 3 incidents and near misses). Improve sharing of lessons learned more quickly.</td>
</tr>
<tr>
<td>Near miss reporting frequency</td>
<td>Improved near miss reporting frequency compared to FY2022.</td>
<td>Drives action to motivate recognition, reporting and learning from near misses.</td>
</tr>
<tr>
<td>HSEC training</td>
<td>Each division or company to develop a HSEC training plan, approved by their respective HSEC Committee by the end of June 2023.</td>
<td>HSEC competency and training needs assessments to be carried out and an HSEC training plan developed to address identified HSEC training needs.</td>
</tr>
<tr>
<td>Road traffic accident risk</td>
<td>Each division or company to develop a road transport risk management plan, approved by their respective HSEC Committee by the end of June 2023.</td>
<td>A road transport risk management plan to be developed to address the road transport risks specific to each division and company.</td>
</tr>
</tbody>
</table>
Crisis management and emergency response

The nature of our business, the complexity of our supply chains and the magnitude of our projects means it is critical that we can withstand and effectively respond to unexpected urgent events that may occur. Central to our efforts to build a resilient business are robust crisis management principles, structures and procedures. These guide our strategic response, including the deployment of resources, to acute and exceptional circumstances that threaten our business.

We have an established Crisis Management Guide and Crisis Management Toolkit that outline the overarching framework for managing a crisis and provide guidance as to the appropriate response.

Incident response plans and preparedness are continually being assessed and improved. In FY2022, we have contracted an external consultant to help us update our Group-level Incident Management Plan and the efficiency with which it links to the Crisis Management Plan.

We have also put in place a process to improve safety engagement with the technical managers of our shipping fleet and ensure lessons learnt through incidents and near misses are shared across the rest of our fleet and business to minimise the chance of recurrence.

The Crisis Management Team (CMT) is led by the CEO and establishes the strategy response to an incident that has been escalated to a crisis. The team is focused on the deployment of appropriate resources to address the incident, manage reputational risk and ensure business continuity.

The Incident Management Team (IMT) develops and deploys the tactical response to an incident, coordinating action to minimise, contain and manage the impact of a crisis. The IMT includes the head of the division, operating company or country impacted, along with appropriate members of management teams and functional heads.

The Emergency Response Teams (ERTs) are typically based locally at an asset or operation and are responsible for managing the operational response to an incident. Each Trafigura asset and location has identified emergency responders who are appropriately trained to fulfil the roles of the teams.

We have adopted a three-tiered crisis management structure:

Geneva

- Trafigura Crisis Management Team

Division/Operating company

- Division/Operating company Incident Management Team

Site

- Site Emergency Response Team

Operational response (and regulatory/legislative requirement)
Driving safely
The transport of metals and minerals, and oil and petroleum products by road is essential to our business but on occasions can present safety risks. Our employees, and more commonly contractors working on our behalf, drive a combined distance of around 250 million kilometres every year across the various countries where we operate. This includes remote locations and on roads that are not well maintained.

The prevention of road traffic accidents is important for us. The consequences of a road traffic incident can be tragic for our employees, contractors and their families, and for other road users and local communities; as well as causing significant disruption to our business operations. The risk of serious vehicle accidents is higher in certain regions where the road infrastructure is poor and road safety culture is not as mature as in other regions. An example of this is in Africa, where we have significant trucking operations, and we need to pay particular attention to road safety.

Across our global operations, we recorded an increase in our road traffic accident frequency (accidents per one million kilometers) in FY2022 to 0.81, including Puma Energy. Our analysis of accidents involving Trafigura employees or contractors shows that 85 percent of incidents are due to human factors. This is consistent with research undertaken by the world transport organisation: IRU and the US Department of Transportation. Other principal causes are technical issues with vehicles, road infrastructure and weather conditions which combined represent 15 percent. Accordingly, our approach focuses on driver skills and behaviour, and on the condition of vehicles.

Our approach is supported by our global road safety standards, including the Trafigura Road Transport Risk Management Guidance and the Trafigura Minimum Expectations for Trucking Contractors, strict requirements for driver training and our global campaign to raise awareness of the importance of driving behaviour. We also have rigorous quality standards for vehicles we use and we routinely audit the road safety capabilities of our contractors.

In FY2022, we made improvements in managing road traffic risks, for example by using technology to help track contractor trucks and driver behaviours. Monitoring driver behaviour is an effective way to promote safe driving. For some time, it has been a mandatory requirement to fit IVMS devices to monitor the performance of each individual driver of company owned and leased vehicles, and we are now extending this to vehicles used to transport commodities and materials. We have also introduced incentive and disciplinary schemes where safe driving is rewarded and unsafe drivers coached to improve, based on IVMS scores, to encourage a culture of safe driving.

We have improved the oversight of contracted light vehicles and trucks and issued guidance on road transport risk reduction measures across the whole Group. This includes mandatory requirements for seat belt use and professional driver training, along with recommendations relating to avoiding driving in darkness and poor weather conditions, safe vehicle pre-use checks, fatigue management, securing cargo in the passenger cabins and journey management planning.

Increased truck demand in Argentina
Our operations in Argentina are experiencing an increase in truck movements between the various operations from 1,500 truck movements per month in FY2019 to 3,400 per month in FY2022, equivalent to 78,000 kilometres each day. This trend is expected to continue as pipelines in the region are at full capacity.

In recognition of increasing trucking risk, the local management team have implemented a series of measures in order to improve road safety and maintain our Argentinian record of zero accidents with driver lost time since 2018. Measures include the real-time satellite tracking of vehicles using in-vehicle monitoring systems (IVMS); the introduction of driver health monitoring; increased driver training including defensive driving; daily vehicle inspections; and frequent transport contractor audits.

Elsewhere and where possible we seek alternatives to road transportation as this removes the likelihood of road accidents and environmental and social impacts. Impala have shifted cargoes from trucks to barges in South America and from road to rail in Africa. Nyrstar are seeking to maximise the transport of zinc by rail and canal barge in Europe.

Read more about in-vehicle monitoring systems (IVMS) on our website: www.trafigura.com/brochure/road-transport-risk-management-guidance
Impala Terminals road safety investment in Africa

In July 2022, Impala Terminals’ dry bulk operations in Africa began installing devices similar to in-vehicle monitoring system (IVMS) units across their fleet of hired trucks. At the end of FY2022, a total of 1,300 devices were in use on the routes to Dar es Salaam and Durban.

This means that Impala has real-time visibility when a truck does not follow safety protocols, for example: speeding, driving at night, not taking breaks, parking outside checkpoints, or leaving the designated route.

Impala Terminals has also set up an immediate response and intervention system in a dedicated trucking control room in Zambia. This control room receives an alert when there are any infractions and means that operators can take immediate action, including contacting the truck owner directly. Records of individual driver performance are maintained, analysed and linked to a driver incentive programme.

IVMS-type devices increase the visibility of contractor truck driving and operational standards. This investment means we will:

1. Reduce the likelihood of a road traffic accident;
2. Increase the safety of our operations;
3. Reduce security risks and costs;
4. Benefit from improved planning thanks to real-time visibility of truck locations.

Example of output from tracking platform:

Improving road safety at our mining activities

We are also using technology to improve road safety at our mining operations through improvements focused on three areas:

1. **Improved management controls**: we have undertaken a review of site traffic procedures, and established minimum requirements and pre-operational inspections for vehicles and heavy equipment present at or entering our sites.
2. **Upgraded our owned vehicles**: we have installed roll-over protection systems, driver and passenger airbags as a minimum, increased our maintenance frequency requirements and updated our vehicle age policy.
3. **Driver behaviour**: we have installed IVMS across our fleet, introduced defensive driving training and implemented a fatigue control programme.

Puma Energy in-vehicle monitoring systems

A key part of Puma Energy’s sustainability strategy is a target of zero severe road traffic accidents.

To achieve this, we are: developing key performance indicators (KPIs) for trucking operations, implementing driver and community awareness programmes and working closely with our thirty-party transport contractors and technology providers including gaining access to their IVMS.

We use IVMS generated data to assess the performance of drivers and transporters by:

- Monitoring vehicle speeds to stay within the limits according to the class of road;
- Tracking vehicle acceleration and breaking to assess driver behaviour;
- Avoiding driver fatigue by limiting continuous driving (not more than 4.5 hours without a break); and
- Restricting night-time driving.

For each of these criteria, we have three levels of oversight: record, alert, and alarm. We have implemented a recognition system that rewards drivers and transporters who consistently drive well.

We have established KPIs relating to road safety for all levels of management in order to make all leaders accountable for implementing these improvements. We monitor performance monthly, using a dashboard fed directly by IVMS data.

We also have a long-running campaign to raise awareness about road safety and are using technology such as the Woocar app and MiX Telematics (fleet management and driver safety solutions software) to achieve this. Public campaigns such as the #BePumaSafe and #BeTruckSafe have also helped raise awareness about road safety across Puma Energy’s operations and surrounding communities.
Respect for human rights

Respecting internationally recognised human rights is an integral part of our approach to business.

Embedding respect for human rights

We have determined our salient human rights risks as those that are at risk of the most severe negative impact through our activities and business relationships, through a process of engaging with both internal stakeholders from across various business functions and external stakeholders. We assessed the severity of the impacts identified based on scale, scope and irremediability. Human rights risks are present in two key areas: our workforce and workers in our supply chain; as well as local communities connected to both our operations and those of our suppliers. For each risk area, we identified specific teams that are responsible for the management, mitigation and, where appropriate, remediation of identified risks, both in terms of our operations and our supply chains.

In FY2022, we initiated a review of our existing human rights policy and commitments with a view to refining our approach in future.

Assessment of our chartered fleet

We recognise that a range of risks to labour rights, including to those of seafarers, are present in our shipping and chartering operations and supply chain. These include risks to the right to freedom from forced labour and rights relating to wages and working hours, discrimination, freedom of association and collective bargaining.

In FY2022, we conducted a formal assessment of the Seafarers’ Rights and Welfare Code of Conduct, developed by the Sustainable Shipping Initiative, Institute for Human Rights and Business and the Rafto Foundation for Human Rights. Our objective was to establish the merits of its potential implementation across Trafigura’s shipping interests with a particular focus on if and how the Code exceeded existing compliance considerations embedded within and enforced through adherence to the Maritime Labour Convention.

The majority of Trafigura’s shipping requirements are met by fixing vessels on a voyage or time-chartered basis. Typically, this comprises many business relationships and approximately 300 vessels on the water at any one time. Far smaller is Trafigura’s fleet of owned vessels, whose management in FY2022, including staffing, was overseen by six third-party ‘Technical Managers’. We engaged our Technical Managers through requesting a self-declaration of performance against the Code, which consequently resulted in a desk-based review by Trafigura of all labour sending agencies contracted by the Technical Managers with a view to identifying any negative media coverage or NGO reporting. No such cases were identified.

While evaluation results were satisfactory, we are continuing to explore opportunities for improvement through engagement with our Technical Managers on such matters to further strengthen our approach and procedures to assess risks and improve performance in FY2023.

To obtain full alignment with the Voluntary Principles on Security and Human Rights at all Trafigura Group operations by end of FY2024

In FY2022, an external specialist security consultant assessed security contractors employed by Impala Terminals and found that contractors are on track to achieve full alignment.
Grievance mechanisms and access to remedy
We recognise that the ability of both internal and external stakeholders to access effective grievance mechanisms is critical to ensuring that we operate our business responsibly. ‘EthicsPoint’ is an anonymous 24/7 multilingual telephone hotline and web reporting service provided by NAVEX Global, to facilitate the reporting of grievances. At an operational level, all major installations are also required to maintain a local grievance process.

Grievance mechanisms implemented across the Group, must be consistent with the UN Guiding Principles on Business and Human Rights effectiveness criteria for non-judicial grievance mechanisms. The process is supported by a range of corporate policies and a standardised toolkit.

In FY2022, the top three sources of grievances reported through EthicsPoint related to employee relations (28 percent), allegations of improper behaviour (21 percent) and conflicts of interest (14 percent).

Alignment with Voluntary Principles on Security and Human Rights at Impala Terminals
In FY2021, we committed to align all Group operations with the requirements of the Voluntary Principles on Security and Human Rights (‘VPSHR’ or ‘VPs’) by the end of FY2024. The alignment will be subject to external verification.

To facilitate the process, we engaged an external specialist risk management company to undertake a detailed global review of Impala Terminals’ private security companies’ alignment with the VPs. The review covered 34 of Impala’s worldwide ports, warehouses and logistics operations, and covered static guarding services, transit security providers and technical security operations (such as CCTV monitoring). The review included a desk-based evaluation of the security provider processes compared against criteria drawn from VPSHR good practice. Following the completion of the review, recommendations and an action plan have been developed, centred around any areas of weak alignment.

We are committed to progressing this programme in FY2023 and activities are progressing across the Group. In FY2023 we will focus on security contractors employed at our operated mines and Nyrstar smelters.

Training for commercial teams
In FY2022, we launched mandatory modern slavery training for those subsidiaries in scope of the UK and Australian Modern Slavery Acts. The training, which was developed in-house, uses practical examples to support employees’ understanding of how modern slavery risks can arise across the value chain, including when buying, transporting, storing, blending, refining, and selling commodities. It incorporates a range of company specific potential scenarios, focused on raising awareness on the topic, identifying and addressing supply chain risks and building an appreciation of different context-specific management approaches.

By the end of FY2022, 2,422 staff members had completed the training, including 98 percent of staff employed by Trafigura subsidiaries subject to modern slavery regulations. We will continue to improve and enforce the application of this training as standard across all new joiners to in-scope business entities.

98%
Of the target audience completed modern slavery awareness training in FY2022

Rights throughout the value chain
Human rights disclosures
We provide more in-depth information about our approach to and progress in addressing each of our salient human rights risks in our standalone Human Rights Report. Our Human Rights Report is based on the UN Guiding Principles on Business and Human Rights Reporting Framework (UNGPRF).

In FY2022, we published our fifth standalone Modern Slavery Statement – in line with the requirements of the UK Modern Slavery Act and the Australian Modern Slavery Act. In this statement, we detail specific steps taken by in scope subsidiaries to identify and remediate modern slavery risks throughout their supply chains.

International standards
We believe in the importance of responsible business and we have developed our policies and procedures cognisant of international standards, including:

2. International Labour Organization’s Declaration on Fundamental Principles and Rights at Work.
3. UN Guiding Principles on Business and Human Rights.
4. IFC Performance Standards.
6. UN Global Compact.
Our people

A diverse and talented workforce

Our success depends on our ability to build highly skilled, productive, agile and collaborative teams. We invest in attracting and developing the most talented people for our operations around the world.

Attracting, developing and retaining talent

We recruit and promote based on merit and irrespective of age, gender, sexual orientation, social background, ethnicity, religion, medical condition or any other legally protected status. We are an equal opportunity employer and our Human Resources policies emphasise that we promote an inclusive workplace environment.

We strive to create a working environment defined by integrity, responsible conduct and mutual respect. We are committed to promoting a respectful and professional workplace, where fair treatment and dignity at work exists across every role and every location where we are present.

To take a leading role in enabling the energy transition and the business challenges and opportunities this brings, we are expanding our competencies, building on our existing skills and experience. This means attracting key talent in new areas and developing our existing teams, maximising the synergies between our existing capabilities in supply chain management and operations, and the future needs of a low-carbon economy. Examples of this are the rapid growth of our renewables businesses, our Carbon Trading Desk and our investment in low-carbon commodities.

Global reach and scale

In this section, we report our performance data as absolute numbers at the end of the financial year, or as average employee numbers over the financial year. This includes staff at assets where the Group retains sole management control. In FY2022, the average global headcount was 13,746 (FY2021: 11,627 employees), representing an 18 percent increase in the year.

Our global workforce is comprised of a combination of professional and commercial staff (53 percent) and operational and industrial staff (47 percent) each of whom play an individual and collective role that is critical to our success. We have activities in 156 countries. This provides us with a diverse global workforce, represented across the globe with 29 percent in LATAM, 12 percent in North America, 30 percent in Europe, one percent in the Middle East, 11 percent in Africa and 17 percent in Asia-Pacific.

In FY2022, we hired 2,871 new employees globally across all roles (FY2021: 2,743).

There is a wide variety in gender split across our divisions, operating companies and assets. At the end of FY2022, 36 percent of Trafigura office-based employees were female. Across the global workforce, including other companies of the group, 18 percent of our staff are women. The differences in gender balance observed between our divisions and operating companies reflects the trends experienced in the wider industry sectors within which we work.

The average age of a Trafigura Group employee is 39 years old. Across the global workforce, most of our staff are between 30 – 50 years old (61 percent), followed by over 50 years old (20 percent) and under 30 years old (19 percent).

Trafigura is owned by a growing number of its employees as shareholders, with the total now exceeding 1,100 staff. This provides an important element of remuneration and an incentive to grow and protect the long-term value and sustainability of the organisation.
**Global opportunities for staff**

Across the Group, we promote employee development not only in-country, but also through our global development opportunities. Through this, we offer our employees a chance to learn from different perspectives and to benefit from different points of view and skills. We look for the best fit for a particular role and recognise that people from diverse backgrounds bring different perspectives. This wealth of experience enriches and strengthens our culture.

In FY2022, 190 colleagues relocated to different countries (FY2021: 170).

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**We recruit for commercial positions through three key programmes:**

1. Our International Trader Opportunity initiative helps us to recruit experienced external traders and identifies internal candidates for trading desk roles.

2. Our Global Graduate Programme provides a pathway into the industry through structured placements in different parts of the business.

3. Our Global Commodity Trading Apprenticeship Programme is a one-year programme that recruits candidates who have not pursued a university degree and, for successful participants, results in a place in our Global Graduate Programme after one year of work experience at the company.

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**FY2022 inter-country movements**

From country of origin to country of destination

- South Africa
- China
- US
- Singapore
- India
- Uruguay
- Canada
- Switzerland
- Netherlands
- South Korea
- Switzerland
- Indonesia
- South Africa
- Canada
- Greece
- US
- Singapore
- Panama
- Uruguay
- Mexico
- Peru
- China
- India
- Turkey
Our culture: diversity is our strength

We recognise that a diverse workforce strengthens our unique business and our culture. Part of our strategy is to offer opportunities around the world, allowing our employees to learn from different cultures. The fact that we have many different employees from different backgrounds enables an international and unique culture in our workforce, with more than 81 nationalities represented by our employees. In most of our offices we have representation of different nationalities: for example, in Switzerland we have 54 different nationalities, 26 different nationalities in Singapore, 19 in the United States, 16 in Uruguay and 13 in Canada.

We promote inclusion, fairness and equality and leaders across the business play an active role in maintaining a corporate culture based on these values. We value the diversity we have across our offices in its many forms, including national origin, gender, ethnicity, age and cultural diversity.

Diversity is about listening to different points of views, valuing them and benefiting from them. A culture is only truly inclusive when people are ready to learn from each other as well as respect different perspectives. We are building a highly skilled and productive workforce that is results-driven and we focus on our hiring and retention in attracting and keeping the best employees for the job. We expect all employees to base work-related decisions on merit. We are committed to having a respectful, professional and inclusive workplace in every location so we will not tolerate workplace harassment and encourage all employees, contractors and suppliers to report any discriminatory or unethical behaviour.

Calgary experience

Our Calgary office has grown from 20 to 110 employees over the 18-month period to the end of FY2022. An important part of the staffing plan was the transfer of employees from international locations. As employees were set to arrive from offices all over the world, a specific onboarding programme was created to address their unique circumstances, especially as many were new to Canada. This led to the development of an international transfer network, intended to help create a community for employees who are new to Calgary and provide meaningful resources to help ease their transition into a new country.

The first two meetings were held in the Calgary office and provided opportunities for employees and their spouses to network with other international transfers and listen to presentations from the local human resources team on information such as Canadian Nationalized Healthcare, how to navigate the real estate rental market, the Canadian school system and other practical topics. The first two meetings served as an opportunity for employees and their spouses to get to know each other and start to form friendships so Calgary no longer felt so far from home. The network has now taken off into a broader “social committee” where recent events include getting together for the Calgary Stampede, a weekend hike and picnic and volunteering at the local foodbank.
Promoting gender diversity

We are working to attract more women to a career in commodities trading, an industry that has been traditionally male dominated. We are hiring and promoting women at a higher level than our current level of gender diversity. As an average across FY2022 for Trafigura office-based employees, 36 percent of our office-based workforce are women, whilst 42 percent of the new joiners in the year were female. We are focussed on building our pipeline of female talent, in particular for commercial staff where women are typically under-represented across the broader industry. This includes developing opportunities for middle and back-office staff to progress a career in commercial positions.

Our targeted diversity strategy also aims to enhance gender diversity in leadership roles. Thirty-seven percent of promotions in FY2022 were women and our current female leadership representation is 30 percent. We have more than 40 percent female managers in four out of 11 larger locations. Canada has 50 percent women at managerial levels and more than 50 percent of the workforce in our offices in China, Greece and Uruguay are women. This reflects our trend towards an overall workforce with greater gender diversity. While we strive for equal representation of women, we perform broadly in line with industry sector averages.

For the 2023 intake onto our Global Graduate Programme, 42 percent of the overall programme in-take were female. This shows continued progression towards our goal of 50:50 gender split for our graduate programme set in FY2020, with the overall objective of improving the gender balance in our commercial departments.

We have made positive changes in our recruitment process, with a better application process to gather more diverse candidates. Importantly, we have worked to make our application anonymous and free of any gender specification to attract a more diverse set of applicants, using software that analyses our job postings for gender-biased language and provides guidelines on gender biases. According to a recent study by the World Petroleum Council, only one out of three companies in the oil and gas sector use such programmes to screen their unconscious recruiter bias.

Gender of the hired intake for the Trafigura Global Graduate Programme:

<table>
<thead>
<tr>
<th>Year</th>
<th>Women (%)</th>
<th>Men (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2019</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>FY2020</td>
<td>74%</td>
<td>26%</td>
</tr>
<tr>
<td>FY2021</td>
<td>64%</td>
<td>36%</td>
</tr>
<tr>
<td>FY2022</td>
<td>58%</td>
<td>42%</td>
</tr>
</tbody>
</table>

Hear from two of our Graduate Programme participants in Athens

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1 According to the International Council on Mining and Metals (ICMM), the mining industry remains male dominated, with women only accounting for 14 percent of the global workforce, and the global workforce in the oil and gas sector is 22 percent women according to a study by the World Petroleum Council (WPC) in 2021.
Empowering and nurturing talent

We are a learning organisation and work to ensure that all employees are motivated to fulfil their potential and help us to realise our goals as a global business. We are committed to our employees’ personal development. Our employees are encouraged to invest time in enhancing key skills such as communication, leadership and resilience using our Learning and Development platform. We invest in state-of-the art technology, including virtual reality systems and mobile phone apps to encourage a variety of training, plus we have implemented training and learning modules to develop technical and interpersonal skills for all our employees globally, so everyone can access and benefit from the training, no matter where they are.

In FY2022, 2,521 employees took part in optional training workshops, either in person or online. In addition, nearly 2,500 employees engaged in virtual conversations with our leaders and external keynote speakers via six internal and five external sessions. Topics covered by these speakers include conflict management, negotiation skills, team building, corporate performance through stressful times, and resilience.

We offer coaching and other programmes designed to help our employees enhance their skills. In FY2022, one-on-one and team coaching sessions, and Insights Discovery profiles sessions were delivered to more than 300 attendees.

We seek to improve the understanding of diversity in our workforce. We provide training on bias and diversity to help our staff across all levels be more aware of how their own biases shape how they view their colleagues and situations that may arise in the workplace. Throughout the year, we held face to face training sessions and we are now launching an e-learning course for diversity, equity and inclusion in order to make this training more widely available.

We also encourage our employees to make time for a healthy lifestyle at work. In Uruguay, for example, there is a gym at the office where employees can exercise and in other locations we sponsor gym memberships for our employees.

In our diversity, equity and inclusion training, we focus on the following objectives:

1. Identifying the unconscious biases that we all have and that lead us to communicate (or behave) with less inclusiveness, often unintentionally.
2. Understanding how these biases work with some examples and committing to changing it.
3. Ensuring familiarisation with the topics of diversity and inclusion, to refresh the basic practices of a respectful workplace and reinforce the importance of these in our organisation.

Across Trafigura office-based roles, we experienced a 16 percent attrition rate with 12 percent voluntary leavers (FY2021: 12 percent overall attrition rate with eight percent voluntary leavers). In FY2022, the total attrition rate for the whole group was 23 percent, and voluntary leavers represented eight percent of the workforce. The higher overall FY2022 attrition rate for the group was largely due to a significantly higher proportion of leavers in Puma Energy, due to organisational changes following the consolidation of Puma Energy into the Trafigura Group.

Trafigura’s L&D Team regularly hosts “An Audience With” webcasts to provide the global workforce with insights into various teams and projects across the business.
Extension of the Human Resources digital platform

One of our key human resources IT objectives this year was to empower and engage our industrial workforce and we have deployed our human resources system self-service for industrial operators. Since October 2022, an additional 1,170 employees are now able to access Workday to view or edit their personal data, request time off and to consume learning content related to HSEC, Compliance, Maintenance, Development and Operations. This significant expansion means that now 92 percent of the whole workforce can now manage their personal data and have direct access to our e-learning material through the digital platform, and we have reduced the administrative burden on the HR team.

Constructive relationships with labour unions

We support and have healthy working relationships with labour unions with 4,376 of our employees having contracts that are covered by collective bargaining agreements. We encourage open communication and dialogue with labour unions throughout the world where we work and we regularly renegotiate collective agreements with union representatives and commit to enter all negotiations in a cooperative spirit in order to reach sustainable agreements.

To facilitate meaningful and productive discussions between our company’s negotiators and union representatives, we have negotiation workshop skills for both our company employees as well as union members.

Employee engagement

We encourage our employees to engage with their colleagues and take advantage of what a global organisation can offer them.

We want our employees to feel engaged at work, so we promote opportunities such as “take your child to work” days in our offices worldwide that help to encourage employees to get to know each other better. For example, in September 2022, the Singapore office organised its first “Bring Your Kid(s) To Work Day,” hosting 30 children between three and 12 years old. The Human Resources team organised a programme and our young visitors were given a presentation on what Trafigura does and were given the opportunity to shadow a trader. Later they all went to their parents’ desk so they could better understand what their parents do and also meet with their colleagues.

In Geneva, over 70 children under the age of 12 attended the office to learn more about their parent’s job, the environment in which they work, and about the raw materials we move around the world. The following day young people aged between 12 and 15 were invited into the Geneva office for a more in-depth induction as part of the Swiss “Futur en tous genres” (a future of all kinds) programme. The programme is aimed at helping young people to learn about careers that are currently underrepresented by their gender and encourages them to highlight their interests and talents when choosing a career and to overcome prejudices. The visitors attended presentations provided by key functions and leaders across the business, took part in a Virtual Reality session and spent some time with their parents to see what they do at work.

In August 2022, our Houston and Calgary offices hosted a bring your child to work day for the first time. 45 children attended the event in Houston and 26 in Calgary. The event was two hours long and included presentations about the company and on shipping for the older children. For the younger visitors there was a craft making session. All the children in attendance did a tour of the offices and got to sit with their parents at their desk and meet their co-workers. These days were considered to be a huge success and will now be run as an annual event.

Trafigura and union discussions in Argentina

In October 2022, we participated in the first Energy Transition forum held in Argentina between the energy sector and union leaders. Organised by the Argentina Catholic University (UCA), senior leaders of the Pan American Energy Group (PAE), Raízen Argentina, YPF S.A., as well as UOCRA (Argentinean Building Workers Union) and the Petroleum Federation, the forum sought to help companies and unions to prepare for the future energy transition and the impact it will have on the labour market.

While attendees noted the importance of the meeting and emphasised the responsibility of all to achieve a promising future for the industry, many stressed the need to have a medium to long-term vision as a prompt migration of energy sources for a country like Argentina requires significant preparation.

Companies will therefore need to build new skills and workers will have to adapt and develop these skills. This new challenge demands close collaboration in order to prepare industry workers and help them continue to be valued in the market.

At the forum, all participants agreed that the refineries of the future will be different, no longer only processing oil to produce fuel but using waste, recyclable plastics and renewable raw materials.

The meeting offered a space for the business and workers to promote policies and conditions that will improve the labour environment. The business, union and academic members will continue to meet and visit refineries of the companies involved, including those at sites in Europe.
Local communities

Contributing to sustainable livelihoods

Our business activities generate a range of economic and social benefits that stimulate development in local communities. We seek to operate in a safe, inclusive, and transparent way. We also proactively engage with communities in the vicinity of our operations.

Engaging and empowering local communities worldwide

We recognise that our business activities can negatively impact local communities. We implement policies and processes to protect the health, safety, security and livelihoods of the communities in the vicinity of our operations. We work to build trust and maintain an open dialogue with those around us, this allows us to build resilience in the areas that we operate and within our global operations and supply chain. Two ways in which we seek to contribute to community development includes through philanthropic giving, via the Trafigura Foundation, and also via targeted corporate social investments (CSI).

Our employees are encouraged to identify and implement CSI projects that meet local needs. We do not centrally specify the type of projects to support as our local employees and the communities they engage with can better identify the needs, but do provide guidance on how CSI projects should be structured and managed in order to ensure common pitfalls are avoided and project objectives are met.

Our CSI projects provide a means for our staff to engage directly with members of the community through providing in-kind support and funds to local charities.

Trafigura corporate social investment projects must:

1. Bring direct benefits to communities, over and above an operation’s core activities.
2. Cannot include investments that are a compulsory part of a facility’s operating permits, or that are made by Trafigura’s philanthropic arm, the Trafigura Foundation.

As well as funding, we also engage directly with the communities in which we operate, offering opportunities to build resiliency and empowerment at the local level. To effectively engage with communities in an open and transparent way, we recruit and support Community Liaison Officers at our operations in rural areas. These community leaders help us to share information and learn more about their communities’ concerns in a culturally appropriate way.

At the remote Mawson West Mine near Kapulo in the DRC, we have recruited and support twelve CLOs, representing six areas potentially impacted by our activities and 21,000 families.

One activity conducted by these CLOs is the collection of all grievances from the local community which we then analyse and provide feedback on including actions we are taking to mitigate impacts. Through the CLOs our community supervisor, who manages our relationship with the local communities, is better able to understand the feelings and perception about our project and act to ensure impacts are mitigated and communities are aware of forthcoming work that could impact them, for instance increased road movements or blasting. We work with CLOs to promote traffic awareness within the communities through which our vehicles pass with the objective or reducing risks to pedestrians and other road users. We also gain insights into the road situation which we pass onto our drivers to again reduce road traffic accident risk.

Additionally, our community supervisor ensures we recruit local workers whenever possible, for example if we employ community members to engage in work along the access roads to the mine.
In FY2022, we made CSI contributions of USD1.67 million (USD1 million in FY2021). Projects sought to address a variety of social and economic issues with the aim of improving the quality of life for people local to our operations. Our CSI projects are diverse and address a range of locally identified needs. The two themes which are dominant, however, are supporting health and education initiatives. During the global pandemic we have supported local authorities to mitigate COVID risk. We also support initiatives that promote the education and skills development of local communities, such as providing teaching resources and support to disadvantaged groups.

We supported over 140 CSI projects in FY2022, around 75 percent of which are under USD10,000 in monetary value and typically benefit local non-governmental organisations or institutions focused on community education, health or wellbeing. Examples of larger CSI projects include:

- In Brazil, Mineração Morro do Ipê donated USD18,000 to support the prevention actions of civil defense, including implementation activities of the PAEBM (Emergency Action Plan for Mining Dams). We also donated USD50,000 towards the development of sports activities in public primary schools;
- In South Africa, Puma Energy, Impala Terminals and the Trafigura Foundation donated USD35,000 to Unitrans and Imperial to provide 34 tonnes of flood relief, including non-perishable food, hygiene products, baby formula and pet food to impoverished communities in the KwaZulu Natal province;
- In South Africa, Puma Energy donated USD35,000 in study fees, accommodation and travel to candidates from historically disadvantaged backgrounds.

In addition, Trafigura has provided other forms of support to local communities based on our areas of expertise and operations. For example, one of our Technical Managers in our Shipping division has set up and implemented a task force to monitor the status and provide support to their Ukrainian seafarers. The company organised various collections of humanitarian aid, employed seafarers who were unable to work as fixed or temporary office personnel and supported several hundreds of seafarers with relocation, planning and other necessary support.
Ukraine

The Trafigura Foundation has donated over USD2 million to support communities affected by the war in Ukraine. Importantly, this includes USD364,000 collected by Trafigura Group employees around the world during a global fundraising campaign.

The Trafigura Foundation has joined forces with internationally recognised organisations in these efforts, contributing to their work in helping populations whose lives have been disrupted by the Ukrainian conflict, including partnerships with UNICEF, IRC, the Swiss Red Cross and the Seafarers International Relief Fund.

Trafigura Foundation

Improving lives and livelihoods

Since 2007, the Trafigura Foundation has provided funding and expertise to advance positive change for vulnerable communities around the world.

The Trafigura Foundation is an independently managed charitable foundation, funded by the company. The philanthropic achievements of the Foundation form part of the Group’s efforts toward greater sustainability and responsibility, while the Foundation maintains its impact integrity, a separate agenda of priorities and a focus on its mission of helping the most vulnerable.

The Foundation supports programmes in three strategic areas:

1. Fair and Sustainable Employment programmes create quality jobs and help to generate income for marginalised groups, helping them to gain independence and resilience.
2. Clean and Safe Supply Chains programmes mitigate social and environmental issues related to supply chains.
3. Community Care programmes support humanitarian relief operations and non-profit organisations selected by local offices.

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2022 key figures

11
Active charity committees, our employees’ volunteering groups (see map)

$700,000+
Disbursed by the Foundation to support charitable projects selected by staff

$364,000
Collected by staff to support communities affected by the war in Ukraine

$8 m
Disbursed in 2022

27
Countries of operation

43
Programmes supported
In 2022, the Trafigura Foundation supported organisations all over the world, with funding committed to the following geographic areas¹

Our Foundation improves livelihoods around the world through sustainable and monitored programmes that work to achieve long term improvements in people’s lives. Examples of these programmes include:

**BOMA** helps pastoralist communities overcome extreme poverty. The organisation successfully developed its innovative model in northern Kenya. This partnership now aims at scaling it up in Ethiopia to lift 13,000 people out of extreme poverty by creating green enterprises and restoring degraded lands. With a gender lens, BOMA actively involves women in improving livelihoods and in sustainably managing natural resources.

[www.trafigurafoundation.org/programmes/boma-project-ethiopia](http://www.trafigurafoundation.org/programmes/boma-project-ethiopia)

**Bridges to Prosperity** is a US-based NGO building trail bridges in remote communities in the global south to address the isolation that rural communities face. The Trafigura Foundation is supporting the Bridges to Prosperity project in Rwanda through a three-year collaboration that will build bridges to unlock access to markets, education, and health services for rural populations.

[www.trafigurafoundation.org/programmes/bridges-to-prosperity-rwanda](http://www.trafigurafoundation.org/programmes/bridges-to-prosperity-rwanda)

The **Plan Vivo Foundation** champions an inclusive, fair and holistic approach to carbon reductions and removals, where communities directly and transparently benefit from access to carbon finance. With over two decades of experience in smart climate action to the benefit of project participants worldwide, Plan Vivo puts vulnerable communities and smallholders at the forefront of designing and implementing nature-based carbon projects. The Trafigura Foundation has partnered with Plan Vivo to support the development of their ‘Project Incubator Hub’ – a system which aimed at improving the efficiency of the Plan Vivo certification process, in turn helping more communities and smallholders to access and benefit from carbon finance.


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¹ Last figures update: October 2022

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Read the blog post by Céline Yvon, Deputy Director at the Trafigura Foundation on making carbon markets work for everyone.

About this Report

Our 2022 Sustainability Report highlights the governance structures, policies and approaches we take to sustainable business practices and our progress in implementing them during the financial year to 30 September 2022. The report presents our overall performance, as measured against our ESG-related targets and other KPIs.

Reporting frameworks
This report has been prepared with reference to the Global Report Initiative (GRI) Standards and is accompanied by a GRI content index, which maps our disclosures against GRI framework guidelines.

The report is aligned with the World Economic Forum Stakeholder Capitalism reporting metrics. The report also forms part of our United Nations Global Compact (UNGC) Communication on Progress on the implementation of the 10 Principles of the UNGC and maps our activities against the Sustainable Development Goals (SDGs).

Our approach and reporting framework are compliant with the principles of the Task Force on Climate-related Financial Disclosures (TCFD), which was created by the Financial Stability Board to develop consistent climate-related financial risk disclosures. This report is also used as the basis for our submission to the Carbon Disclosure Project (CDP).

Boundaries, scope and portfolio changes
Unless stated otherwise, all data included in the report refers to our 2022 financial year, which runs from 1 October 2021 to 30 September 2022 (FY2022). This report includes information and data for divisions, subsidiaries and investments where we have a majority shareholding or otherwise are considered to have operational control.

This means where Trafigura directly or indirectly controls and directs the day-to-day management and operation of the entity engaging in such activity. We report our environmental, social, health and safety data where we have operational control on a 100 percent basis, irrespective of the actual equity stake. Economic data is reported on an equity basis. Compliance and people-related data covers employees in our direct employment, unless otherwise stated.

We report sustainability data for assets, facilities, investments and operations from the first full financial year of ownership. For FY2022, this includes Nala Renewables, Nyrstar (Europe, Australia and North America), joint ventures IPE Mineração Morro do Ipê and Porto Sudeste (Brazil), Mawson West Limited (Australia) and Wolverine Fuels (North America) have been reclassified as investments in FY2022.

Puma Energy was fully consolidated into the Trafigura Group from 30 September 2021 and the company sustainability data has been incorporated into Trafigura’s sustainability reporting for the first time in FY2022. In line with the Trafigura GHG Manual, we have adjusted our reported GHG emissions in FY2021 and FY2020 to include Puma Energy’s performance as part of our emissions reporting and targets.

The Minas de Aguas Teñidas (MATSA) mining asset in Spain was agreed to be sold to Australian mining and exploration company, Sandfire Resources in September 2021 with the sale closing in January 2022, and is not included in this report.

In some instances, we have restated figures from previous years to reflect changes in the portfolio, changes in reporting principles or improvements in our data collection and analysis processes. In case of material restatements (change of over five percent), we provide explanations regarding the revised data in the ESG Data Book.
Assurance

Our GHG emissions reporting is aligned with the GHG Protocol and defined in detail in our GHG Manual, against which ERM CVS have assured our GHG reporting and the emissions data provided. This also applies to other sustainability performance targets associated with the sustainability-linked loans, for example, the alignment of our Responsible Sourcing Programme with requirements of the International Sustainable Procurement guidelines, ISO20400:2017 and alignment of Trafigura’s Group operations with VPSHR.

GHG reporting

For investments where the Group owns a minority shareholding, we report our share of the operation or business GHG emissions proportionate to our equity shareholding. This is reported as Scope 3 category 15 emissions, from the first full year of ownership.

Our investments in Prony Resources, Terrafame, Nayara Energy, Fangcheng Guangxi smelter, Mawson West Limited, Wolverine Fuels, Atalaya Mining and Hidrosur Asfaltos were completed in FY2021 and GHG emissions data have been included in Trafigura Scope 3 emissions, proportionate to our investment in this report.

Carbon dioxide equivalent (CO\textsubscript{2}e) emissions are reported in metric tonnes throughout the report. This includes the Kyoto Protocol greenhouse gases carbon dioxide, methane, nitrous oxide, sulphur hexafluoride, nitrogen trifluoride perfluorocarbons and hydrofluorocarbons. When actual data are not available, estimations based on data from other business units or reliable external references are incorporated. The main emission conversion factors used are those developed by the Global Logistics Emissions Council (GLEC), the International Energy Agency (IEA) and the UK Department of Environment, Food and Rural Affairs (DEFRA).

We have extended our Scope 3 GHG emissions reporting to include purchased goods and services, the processing of sold products, the use of sold products and franchises. This is in addition to the previous Scope 3 GHG emissions categories of fuel- and energy-related activities, upstream transportation and distribution, business travel, upstream leased assets and emissions from investments reported by equity share.

This Sustainability Report (the “Report”) contains forward-looking statements. All statements contained in this Report that do not relate to matters of historical fact should be considered forward-looking statements, including, without limitation, statements regarding our sustainability-related targets, our future business expectations, expectations in relation to our industry, as well as statements that include the words “expect”, “intend”, “plan”, “will”, “believe”, “estimate”, “may”, “should”, “anticipate”, and similar statements of a future or forward-looking nature. These forward-looking statements are based on management’s current expectations. These statements are neither promises nor guarantees, but involve known and unknown risks, uncertainties, and other important factors that may cause actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements, including, but not limited to, the increasing impact of and focus on ESG matters could increase our costs, harm our reputation and adversely affect our financial results. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements that we may make. You should not rely upon forward-looking statements as predictions of future events.

In addition, the forward-looking statements made in this ESG Report relate only to events or information as of 20 January 2023, the date of the publication this Report. Except as required by law, we undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise, after the date on which the statements are made or to reflect the occurrence of unanticipated events. The sustainability figures may change in future years, due predominantly to methodological advances in analysing sustainability data (such as calculating our Scope 1, Scope 2, and Scope 2 emissions) and changes to emissions factors that impact the way we calculate our data. In addition, as a result of the growth of our business both through organic expansion and acquisitions, we may need to re-baseline our sustainability information and continuously improve our sustainability reporting. We therefore anticipate there may be further changes to our baseline sustainability data in our future reports.