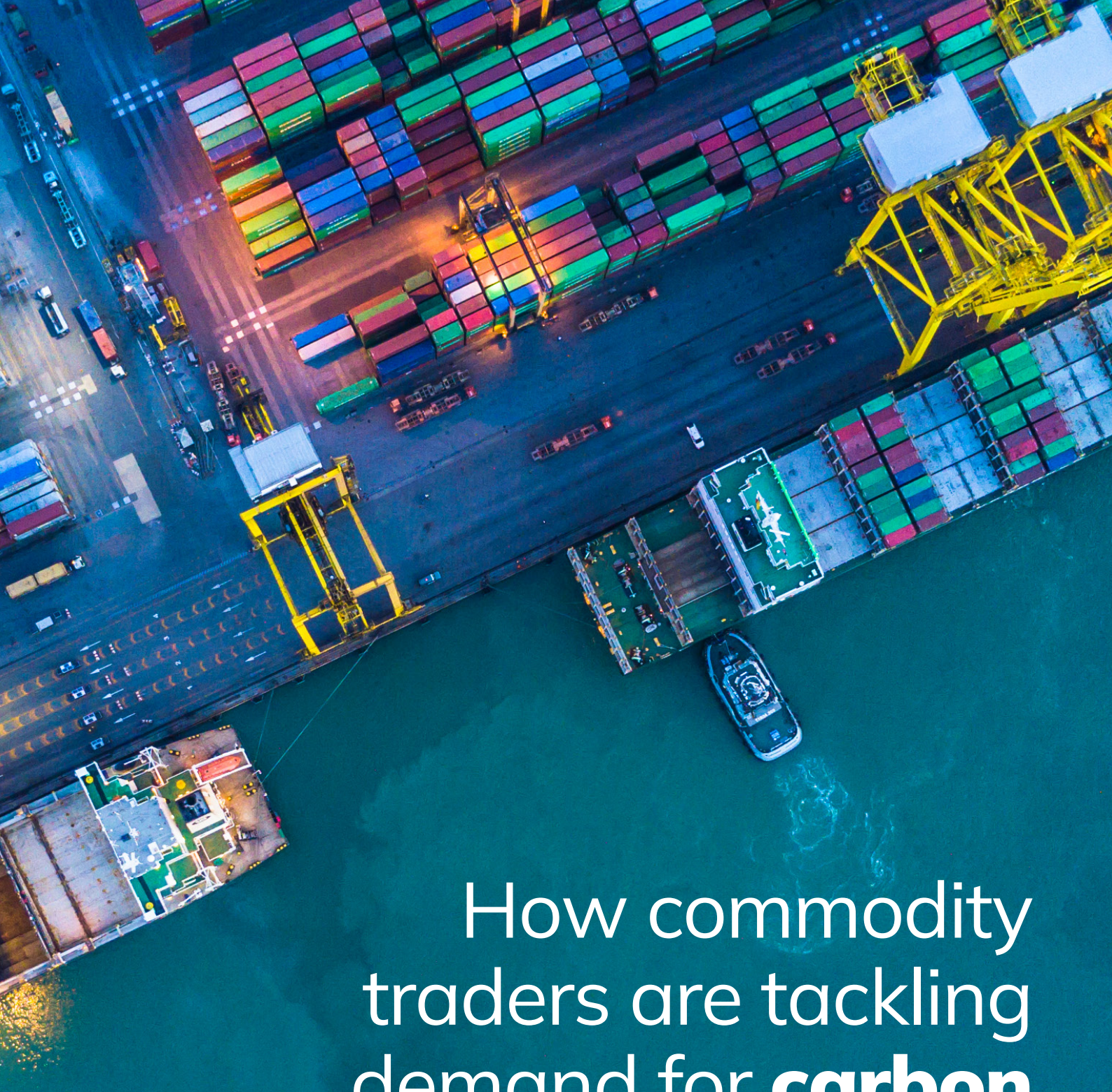


How commodity traders are tackling demand for **carbon disclosure and action**

Carbon Chain

CarbonChain.com

Contents

CHAPTER 1

Commodities and carbon:
The fast-growing challenge for traders

Contributing to the majority of the world's greenhouse gas (GHG) emissions, the **commodities industry** is at the heart of the climate challenge.

It's also at the highest risk of disruption in the transition to a net-zero economy, which is already underway.

Shocks in one area of the value chain have a knock-on effect throughout. Commodity traders face major potential risks across their supply chains, including stranded assets, reputational damage, mandatory reporting, and the legislative and financial impacts of carbon pricing[1].

But, there's a wealth of potential opportunities for those who plan ahead. Managing your emissions and accelerating your journey to net zero can lead to benefits such as green financing opportunities, ESG (Environment, Social and Governance) leadership recognition, and innovation and competitiveness through meeting demand for low-carbon products.

Half of the world's fossil fuel assets could be worthless by 2036 in a net-zero transition[2]

The COP26 agreement explicitly commits to phasing down coal and fossil fuel subsidies[3]

20

countries and the European Investment Bank will end foreign financing of fossil fuels by end-2022[4]

40

countries have made a pact to phase out coal[5]

50% of global emissions come from the extraction and processing of materials, fuels and food[6]

Nations representing 32% of steel production have agreed to make net-zero steel preferred by global markets in 2030[7]

COP26 saw new pledges to halt and reverse deforestation by 2030[8]

CHAPTER 2

Customers and stakeholders are putting the spotlight on the carbon intensity of your products

IT'S TIME TO SHOW YOU'RE TAKING ACTION

Purchasers, financial institutions, upstream suppliers, and logistics firms are increasingly responding to the risks and opportunities they face in the climate emergency. Knowing that these lie in their indirect (Scope 3) emissions across the value chain, not just in their operations, they're scrutinizing their most carbon-intensive suppliers and finance customers.

Meanwhile, governments are setting bolder policies to meet 2030 and 2050 climate targets, and expecting action and transparency from the highest-emitting sectors.

So are a growing number of shareholders[9], consumers, prospective employees[10]—all amidst intensifying media scrutiny on greenwashing[11].

In this rapidly changing landscape, many commodities buyers and trade finance providers are facing pressure from their own stakeholders and customers on carbon-related issues, and passing this up the supply chain. Others are proactively taking steps to get ahead of demand and regulation, for example assessing and monitoring carbon risk to future-proof their businesses, and seeking supply chain emissions inventories to measure their carbon footprint across all scopes.

For customers and financiers, your supply chains likely house their biggest carbon hotspots and risks.

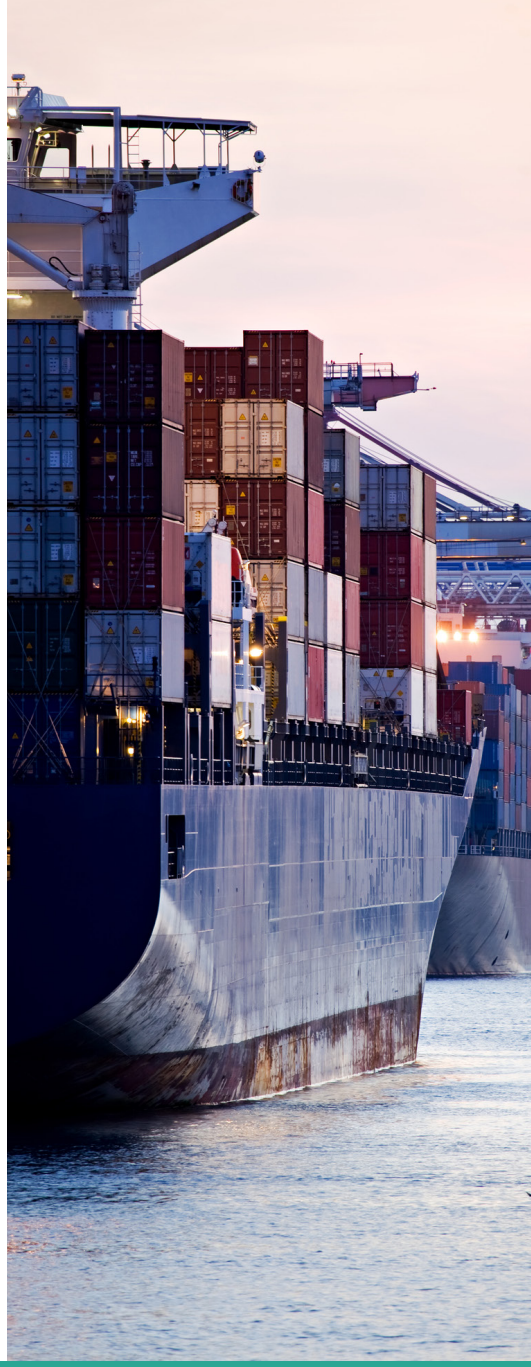
Purchasers and finance providers are increasingly asking commodity traders for information and action on the carbon intensity of their trades. For example: requesting green credentials, evidence of ESG-related activities and plans, or for a full supply chain emissions report.

These demands aren't always clear. The requests from different buyers and financial institutions can be ambiguous or inconsistent, making it challenging for traders to know exactly what to disclose and what actions to take.

All parties are navigating a rapidly changing market: a world of new and changing carbon legislation, with mostly voluntary disclosure frameworks. Furthermore, there's a lack of globally-regulated approaches to climate risk reporting, offsetting, decarbonization and target-setting for the most challenging and carbon-intensive industries (oil and gas, metals and mining, agriculture).

There's no solid benchmark for good practice that stakeholders can ask commodity traders for—or that you can turn to.

But this is no excuse for inaction, as scrutiny increases and the race to halve emissions by 2030 gets hotter. Getting ahead of regulation and standardization lets commodity traders mitigate risks and seize opportunities, as we'll explore in the next chapters.



Understanding the key drivers

Different customers and financial institutions are at different stages in their awareness of Scope 3 carbon risk, and in their engagement with commodity traders on the issue. But the potential benefits they get from understanding and addressing the carbon intensity of your trades is clear.

If your customers and financiers haven't yet engaged with you on carbon issues, this is an opportunity for you to seize potential first-mover advantages.

Use the insights in this guide to proactively take action and open up conversations, showing you can help buyers and financiers comply with legislation, get ahead of regulation, and find solutions to manage the net-zero transition together.

Benefits and drivers for customers and trade finance providers

Closing their climate data gap

Reporting and disclosure:
By including Scope 3 emissions in their inventories or asking suppliers to disclose through recognized frameworks[12], they can comprehensively fulfill reporting demands and demonstrate ESG leadership by catalyzing transparency up the chain.

Insight and monitoring:
Tracking their climate risks and impacts helps your customers and finance providers take informed action. Measuring Scope 3 emissions and mapping out carbon hotspots lets them assess the potential knock-on effects of current and upcoming regulatory, reputational and financial risks.

Accelerating their carbon action

Risk management:
To avoid reputational damage, they need reassurance and certifiable proof about the green credentials of a trade compared to industry benchmarks—whether or not they engage with the full emissions data. Others want to reduce risk by understanding how a commodity trader will deal with the rising costs of high-carbon products in highly-regulated geographies, and the risk of stranded assets.

Decarbonization:
To achieve net-zero targets or offer competitive low-carbon products and services, purchasers and financial institutions need to cut emissions in their portfolios and supply chains. This means choosing to finance or buy commodities whose embodied emissions are low-carbon compared to industry averages, or working with traders who are setting targets and have robust action plans.

Let's take a closer look at why and how traders are responding to customer and financier demand for carbon disclosure and action, while seizing business benefits.

CHAPTER 3

Meeting demand from customers

DE-RISKING AND GREENING THE CHAIN

From major multinationals to SMEs, the number of companies seeking to measure and tackle their carbon emissions and risks is growing year on year[13]. Many have identified or felt the impact of carbon regulation, reputational and financial risks, or experienced demands or incentives[14] from their own customers. Others are proactively reporting to demonstrate climate leadership, track their progress against targets, and gain a competitive edge in the transition to a net-zero economy.

Companies and their stakeholders are raising the bar: it's becoming widely recognized that measuring and managing Scope 1 and Scope 2 emissions is insufficient in the fight against climate change and to address business risks. So, businesses are increasingly scrutinizing Scope 3 environmental risks and impacts, and demanding action from suppliers, who are in turn engaging their own suppliers. For businesses whose supply chains run through the high-polluting extractive and agricultural industries, this is especially urgent.

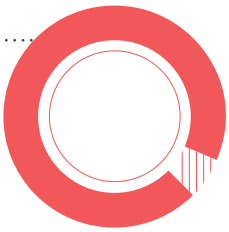
Commodity traders need to act fast to stay resilient and competitive, as purchasers put you under the spotlight.

1 in 5

retailers are dropping suppliers over sustainability concerns[15]

94%

of companies with science-based targets include Scope 3 emissions[16]



Supply chain emissions are on average

11.4x

more than operational[17]

Electric vehicle manufacturers face scrutiny if they don't ensure low-carbon product supply chains[18]

200

companies representing

$5.5 trillion

in procurement spend requested

23,487

suppliers to disclose through CDP in 2021[19]

What customers are missing:

1. Supply chain visibility

They can usually measure the last transport leg but can't get back to the cradle. They need the product's whole lifecycle emissions and to uncover the black boxes of hidden risks.

2. Supply chain action for lower-carbon products

They know there's an opportunity for innovation, competitiveness and growth in working towards net zero and reducing the lifecycle emissions of their products—whether that's cutting emissions across existing supply chain, or building new ones.

What they need from commodity traders:

- **Carbon accounting**: Data about your supply chain emissions, or for you to report them externally
- **A summary carbon intensity or report**, highlighting hotspots and risks
- **Verified green credentials** about your trades or suppliers
- **A plan** for decarbonization and tackling risk; examining your own suppliers and cascading action down the chain
- An understanding of how your trades perform against industry **benchmarks**

Gunvor Group Ltd is a global leader in naphtha trading. In 2021, one of their most important customers asked them to provide GHG emissions data for all their naphtha trades, covering the whole supply chain from extraction of crude oil and condensate through to delivery of naphtha at the customer gate. At this point, Gunvor had little information about their supply chain emissions. They had some calculations for their own vessels, but nothing for upstream oil and gas activities or for the processing of oil into naphtha (other than for their own refineries).

See page 19 for how Gunvor met the challenge

Why respond to customer demand?

Risks of inaction

The more suppliers take action on their emissions, the more choice buyers have to move their sourcing elsewhere, as they evaluate procurement contracts to gain a competitive edge and future-proof their business.

Failure to respond, or responding with inaccurate unverifiable emissions data, can lead to reputational risks[20], and board governance on these issues will likely intensify due to shareholder pressure.[21]

Opportunities of action

Seize the financial opportunities of responding to increasing demand for low-carbon products.

Gain end-to-end supply chain transparency with visibility of risks and emissions reduction opportunities.

Gain climate leadership recognition by proactively collaborating with your upstream and downstream chain to build greener, more resilient commodity supply chains—not just reporting to the ones who ask.

Reap the benefits of proactive voluntary disclosure, to show you're a step ahead of regulation and are able to mitigate risks early.

Respond to the demand for low-carbon products, and secure green suppliers before increased demand creates a market premium.

CHAPTER 4

Meeting demand from trade finance providers

ACTION ON HIGH-CARBON, HIGH-RISK LENDING

With eight years left to halve global emissions, and world leaders doubling down on climate pledges, financial institutions face huge pressure to green their portfolios. Governments are proposing rules[22] for financial institutions to publicly set net-zero plans, demanding transparency about financial carbon risk, and setting policies targeting high-emitting industries.

Financial institutions know they have the power to address their financed emissions and redirect capital towards more sustainable activities.

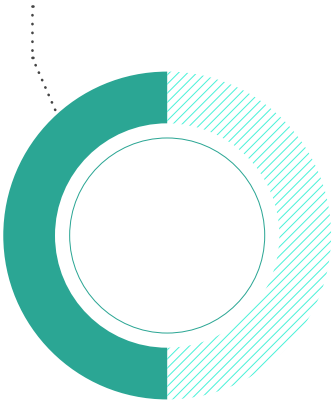
As they investigate environmental risks in their portfolios, they're requesting action from commodity traders.

Portfolio emissions disclosure[23] and climate stress tests[24] are on the rise across key economies.

With stakeholders and media probing for signs of greenwashing, financial institutions need to get an accurate picture of the carbon footprint and intensity of their trade finance portfolio, and start offering verifiably low-carbon products and services.

The number of financial institutions calling on companies to disclose through CDP rose by over[25]

50%



76%

of financial institutions see opportunities in offering sustainable finance products and services[26]

Over 160 financial institutions with

$70 trillion

in assets have committed to net zero[27]

Green finance schemes are potentially cheaper for financial institutions than purchasing offsets, per tonne of carbon dioxide (CO2) emissions reduced. At CarbonChain, in our work with commodity traders and financiers, we've observed that a bank offering a relatively small interest rate discount (for example, 0.1%) can create a tenfold decrease in CO2 emissions.

What finance providers need from commodity traders:

- Measure the carbon footprint and intensity of the trades they finance covering the whole supply chain.
- Set agreed KPIs to improve performance.
- Demonstrate your green credentials with auditable and certified reports.
- Protect trades from the rising price of carbon and the risk of stranded assets by switching assets or suppliers, or driving change among suppliers.

Sustainable trade finance is becoming essential for many of our banking and trading clients. They know they must integrate ESG policies into their operational and financial decision-making

— **Simon Ring**, Global Head of Financial Markets Compliance, Pole Star

Why respond to financier demand?

Risks of inaction

Trade finance providers can redirect capital towards **verifiably lower-carbon** trading.

High-carbon trades may become subject to **higher interest rate loans**.

Opportunities of action

Green finance incentives: Access discounted interest rates from some lenders by measuring and managing your climate risk.

Gain a competitive edge: Most commodity traders are unprepared for the carbon accounting burden. Those who start the process now will be best placed to prove they meet green finance criteria, and comply with reporting demands.

Long-term partnerships: Demonstrate you're a viable loan recipient for the long term: embed climate action into your business strategy, and show you're serious about using your leverage in supply chains to decarbonize commodity trading and tackle carbon risk.

Pre-empt requests: Financiers want to de-risk their portfolios to get ahead of new and changing ESG legislation. Proactively show you can support this journey and enable compliance (through green sourcing strategies, emissions tracking, and target-setting).

Some banks using **CarbonChain** are offering interest rate discounts of up to

10 basis points

for traders addressing their emissions

CHAPTER 5

Join the commodity traders taking action

START BUILDING STRONGER SUPPLIER CHAINS FOR THE NET-ZERO TRANSITION

Pioneering commodity traders are already responding to customer and stakeholder demand for disclosure and action. They're measuring their supply chain emissions with precision, and identifying opportunities to reduce them. These traders are sending a clear signal to banks and customers that they can help them build resilient, competitive portfolios and supply chains for the net-zero transition.

How traders are responding

Quantifying their carbon footprint (not just of the specific trades requested, but their entire trade portfolio) to compare suppliers and assets, and proactively sharing data with other trade finance providers and customers

1

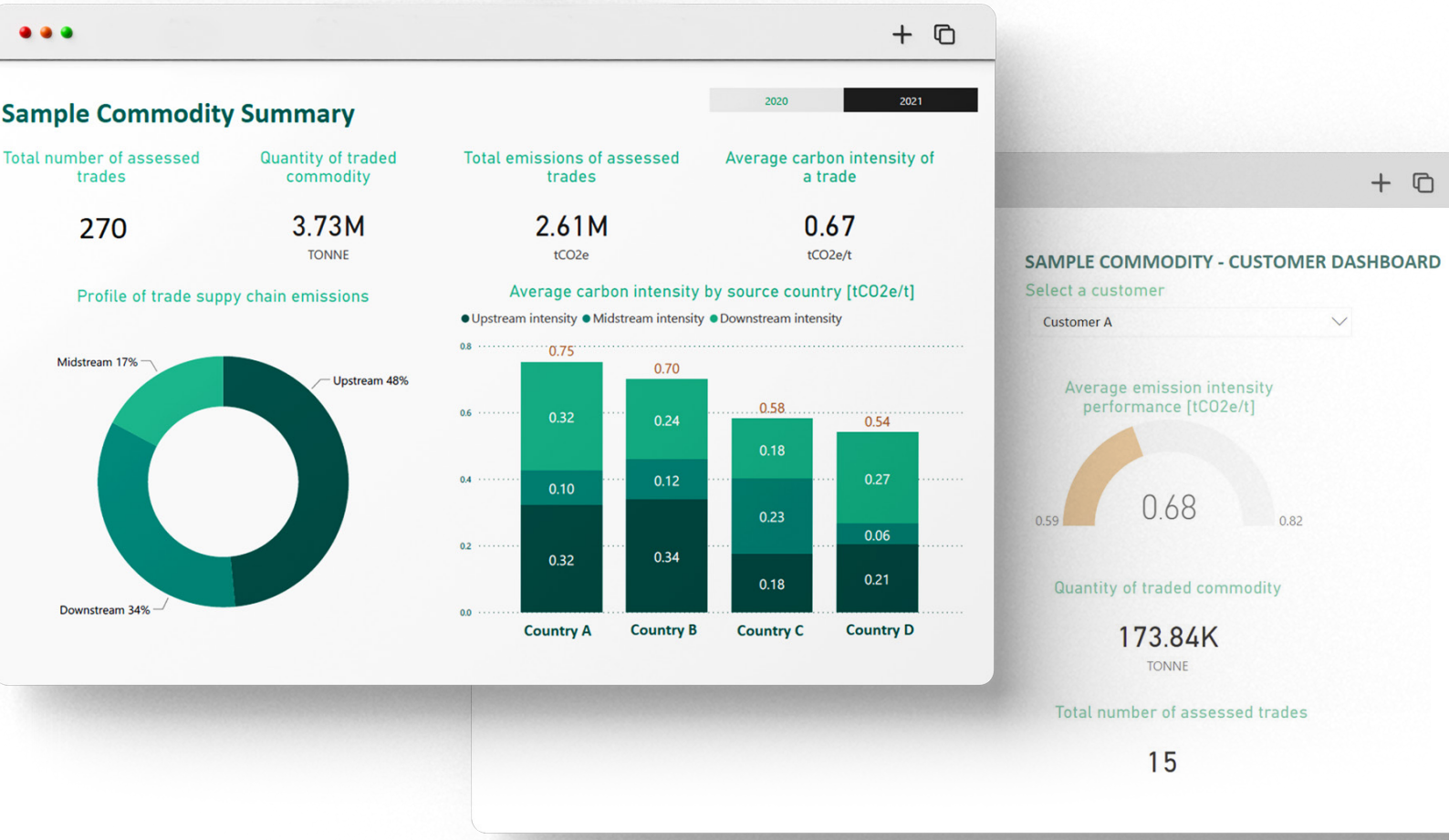
EXAMPLE

In 2019, Concord Resources Limited was ready to lead the way on Scope 3 carbon footprinting in the commodities sector. With over 10,000 annual trades to analyze, unknown key upstream assets and the notorious data gap for extractive emissions, they needed expert tools fast.

Since then, they've used AI-powered software to calculate their supply chain emissions across more than 30,000 trades, providing fast, accurate, and auditable reports that help address risk, and that stakeholders can trust.

Using automated carbon accounting software to fill the supply chain data gap, and save time and resources in emissions calculations

2



Working with trade finance providers to set KPIs, and access green finance opportunities

3

Société Générale is working with one of its trade finance recipients (Concord Resources) to develop solutions to shared carbon challenges. They use carbon accounting software to quantify and benchmark each trade's emissions, rate suppliers' performance, develop KPIs for potential green finance opportunities, and track progress.

Identifying risks and hotspots with granular carbon accounting for the end-to-end supply chain

4

We work together with CarbonChain and several clients, using big data and machine learning technologies to measure the greenhouse gas emissions of selected trade flows thanks to a mapping of the full supply chain.

This mapping gives, both our clients and ourselves, a better understanding and transparency of where their business stands today in terms of carbon footprint at each step of a transaction – in the warehouse, at the port, on the ship.[28]

— **Deia Markova**, Head of Trade Commodity Finance, Société Générale

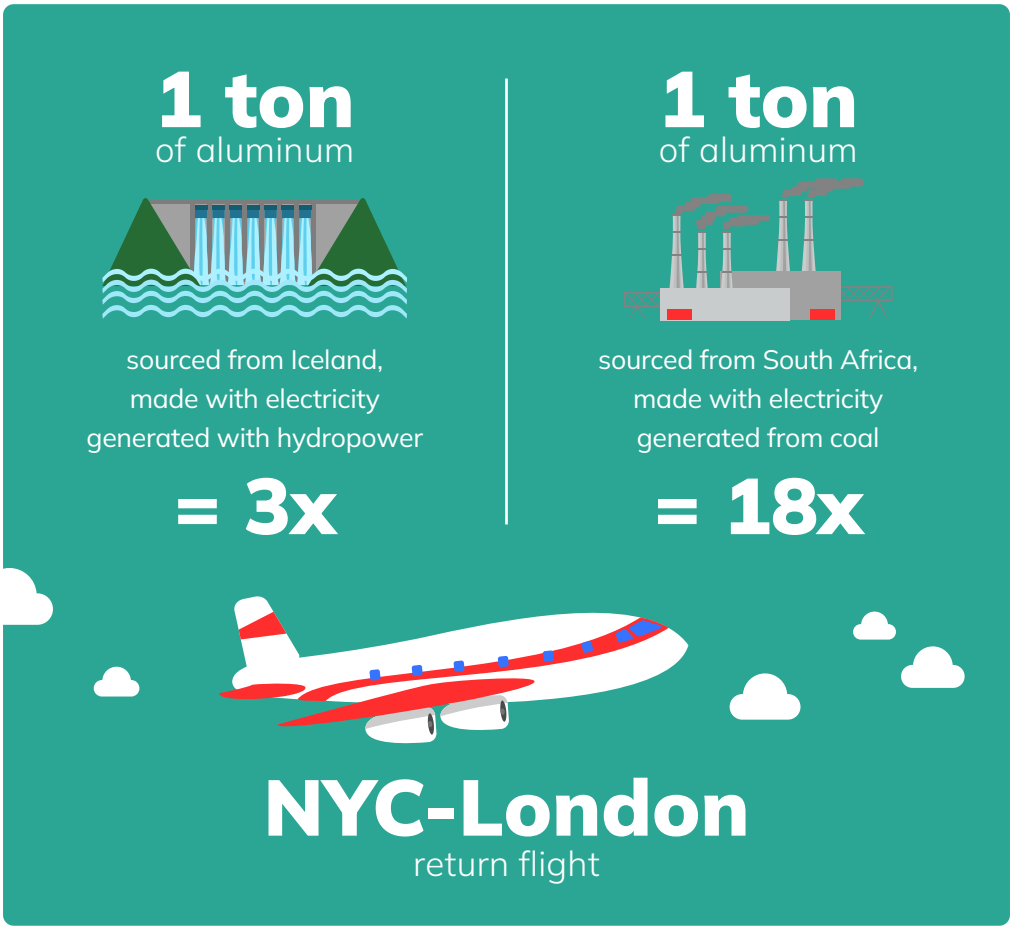
The challenge is vast: emissions from the shipping industry are skyrocketing, carbon regulation is fast-spreading, and asset-level carbon data is extremely hard to obtain. In response, traders and finance providers are using best-available technology to integrate emissions data into compliance and risk management. For example, by using PurpleTRAC (our sanctions compliance technology), they track and screen vessels for sanctions exposure and sustainability performance on the same platform.

This makes ESG reporting and compliance along the value chain streamlined and efficient, to aid the move towards a more sustainable commodities industry.

— **Simon Ring**, Global Head of Financial Markets Compliance, Pole Star

Screening assets, comparing suppliers, and identifying emissions reduction opportunities

5



Gunvor Group Ltd used carbon accounting software to gain insight into the large emissions variation between naphtha sources according to geography.

Countries with higher average emissions intensities mostly had mostly due to poor flaring track record.

Getting ahead of direct stakeholder requests: initiating the conversations around carbon emissions and sharing the data

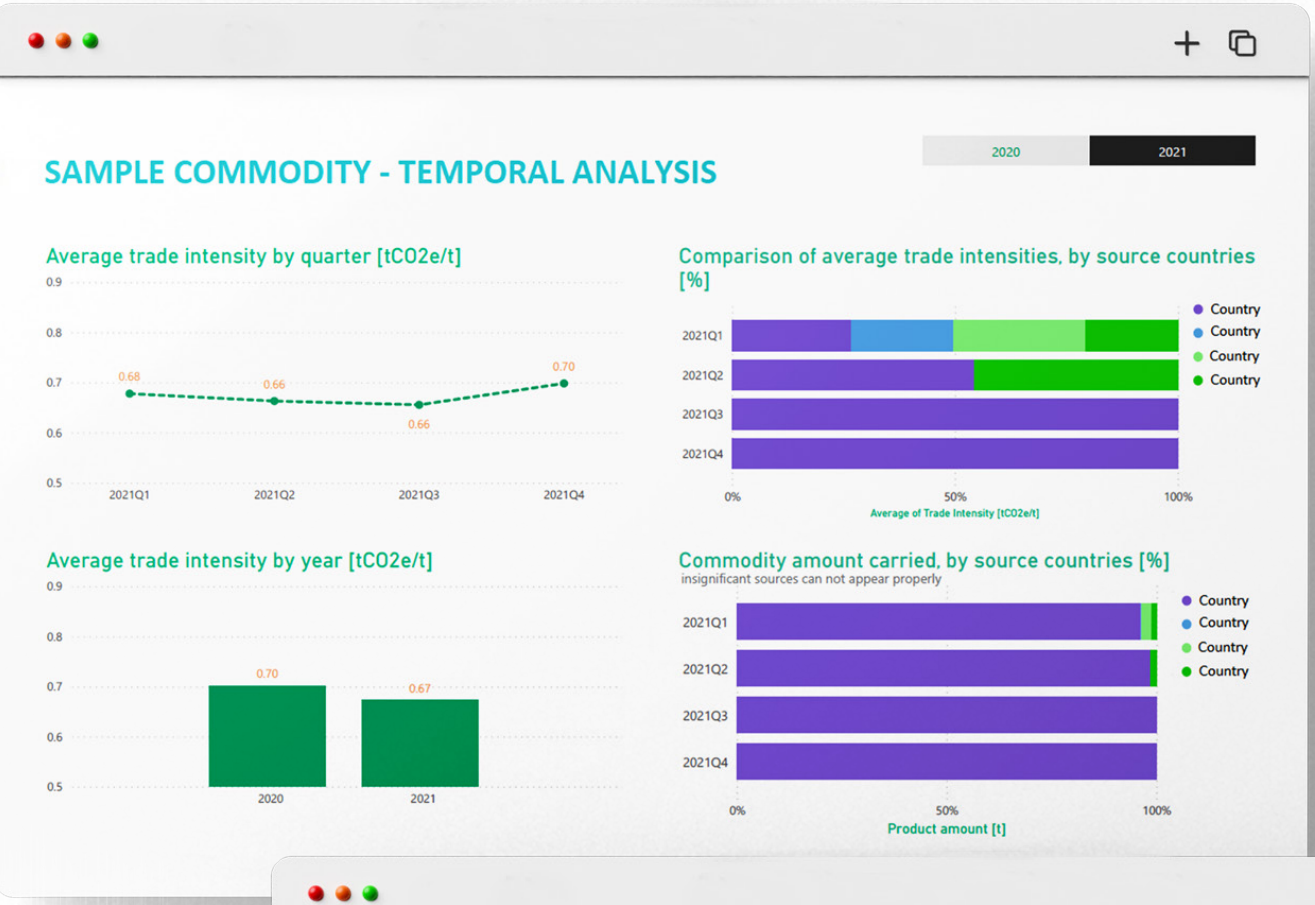
6

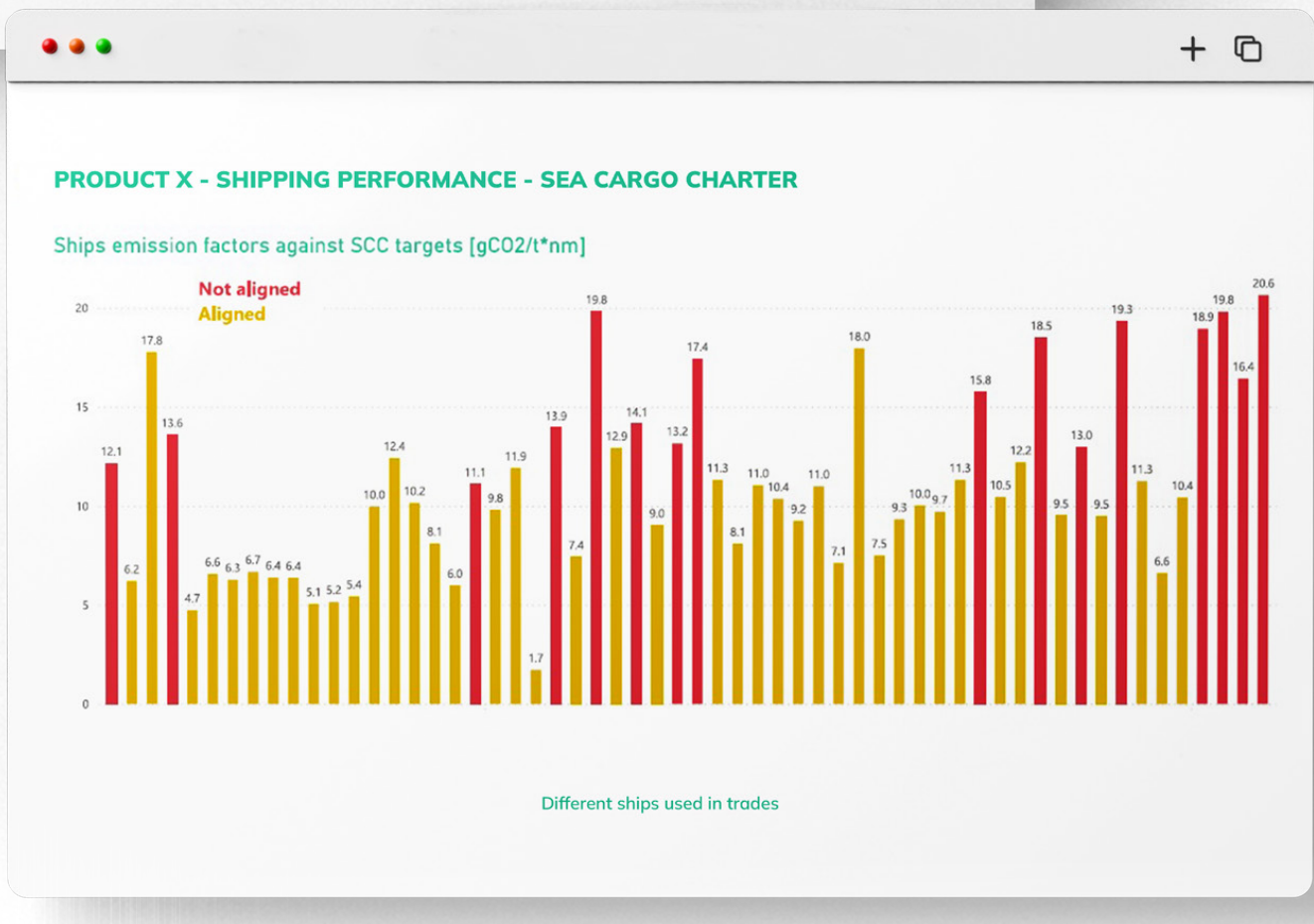
Supporting the migration to **resource-transparent supply chains** is a priority for Concord. We are pleased to move in this direction and aim to create a standard for transparency in carbon emissions reporting

— **Mark Hansen**, CEO,
Concord Resources Limited

Rating their performance against industry averages, and tracking progress over time

7





There are a growing number of opportunities for lower-carbon supply chains:

Key members of the **shipping industry** are committing to net-zero[29]

The world's **largest miners** have commited to net-zero by 2050[30]

SSAB-owned company **Hybrit** has delivered its first batch of steel produced without using coal as a trial run with Volvo[31]

Benefits of early action

Prepare for growing stakeholder demand and mandatory disclosure, ensuring you have the right tools, resources and people, and secure green suppliers before market demand creates a premium.

Know the impact of carbon regulation and derisk your supply chain. For example, prepare for carbon credits purchases and develop plans for shifting to lower-carbon suppliers and assessing the geographical distribution of your supply chain in light of regulated markets.

Collaborate with financiers, buyers and suppliers to set emissions reduction targets based on robust data, and start progressing towards the urgent 2030 deadline to halve global emissions.

CASE STUDY

Mapping scopes for actionable insights

Gunvor Group Ltd used CarbonChain's carbon accounting software to successfully respond to customer demand for disclosure.

They also gained new actionable insights for their journey towards lower-carbon trading, by differentiating between their Scope 1, 2 and 3 emissions. For some naphtha trades, Gunvor owns the upstream oil refineries. In those cases, they need to categorize the refinery's emissions as Scope 1 and 2, whereas for all other trades those emissions are Scope 3. Gunvor can now robustly track, report, and progress towards emissions reductions targets[32] for each scope.

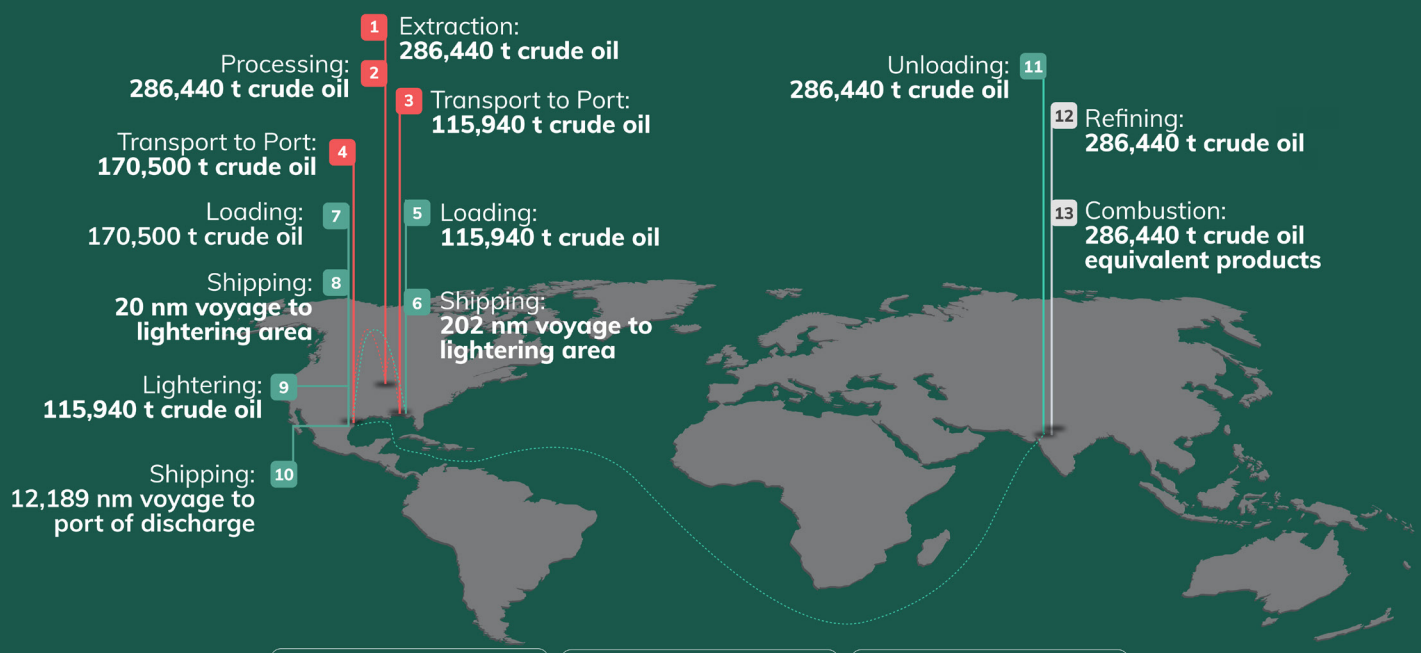
For the first time, we understand the carbon intensity of our trades [...] We've not only fulfilled customer reporting requirements, but now we can continue to monitor our trade portfolio footprint, and work towards environmentally-responsible supply chains.

— **Elsa Pernot**, Group HSEC Director, Gunvor Group Ltd

The entire supply chain matters—from end to end—but that's the biggest challenge

- Customers and financiers are interested in the embodied emissions of your products, from cradle to gate.
- With the complexity of global supply chains, and the scarcity of primary emissions data for the commodities sector, Scope 3 emissions calculations is extremely challenging.
- Knowing how to take action is also difficult: Are there opportunities for reductions? If so, where? At what cost to my business? Where do I have leverage to make change and how do I incentivize suppliers' own procurement and logistics choices?
- To solve these issues, commodity traders are turning to AI-powered software to get precise granular data, screen assets, and compare suppliers' emissions so they can develop green sourcing strategies.

Greenhouse Gas Emissions Report CO2e (t) %



Well to Port	Shipping	Refining and Combustion
Subtotal (A) 348,601	Subtotal (B) 15,954	Subtotal (C) 814,800
29.6%	**1.4%**	**69.0%**

Total emissions sum (A) to (C)

1,179,355 = 100%

Respond to demand, future-proof your business, and accelerate your net-zero journey

Accurate carbon footprinting and asset screening can lead to immediate benefits and emissions reductions, and spark long-term collaboration between financiers, suppliers, and traders.

Being proactive is key. If your customers and finance providers haven't yet engaged with you on carbon issues, it's time to get ahead.

Business as usual is not an option. Leading commodity traders know that if they don't start embedding carbon management into business strategies, they risk significant disruption in the net-zero transition. In this rapidly changing ESG landscape, there are benefits for those who prepare, and those who move first.

With leadership from commodity traders, we can accelerate the transition to a 1.5°C, Paris-aligned future.

Learn more

Understand the impact of carbon pricing on the commodities sector

How carbon accounting software helps traders in the net-zero transition

Case study: How CarbonChain helped Gunvor meet customer demand for carbon disclosure

Contact us

Want to know how CarbonChain can help you?
Get in touch.

Carbon Chain

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Footnotes and sources

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