



How to reduce your
carbon footprint in
FMCG logistics

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If you're in an FMCG business, it's obvious that reducing the carbon footprint of your supply chain is a business imperative.

For example, if you've recently bid to win a large-volume contract with a multinational retailer, you'll have no doubt received their sustainability assessment. Among other criteria, you'll have had to self-report your organisation's Scope 1 and Scope 2 emissions and some Scope 3 emissions. In addition, you'll likely have had to detail current environmental management measures as well as your organisation's carbon reduction plan.

If you couldn't provide this information, or if the information didn't meet the retailer's standards, the odds of securing the contract won't be in your favour.

That means the decarbonisation question turns to 'when', not 'if'. The short answer to that is as soon as possible. However, Maersk CEO Vincent Clerc has a more practical answer. Like many other business leaders, he believes that "we must make an impact in this decade". Either way, the question now turns to 'how' — which will be the main focus of this guide.

"The science is clear: We must make an impact in this decade, and we are now accelerating our climate ambitions by ten years and committing to be net zero across our business and value chain by 2040 with 100% green solutions for our customers."¹

Vincent Clerc, CEO of A.P. Moller — Maersk

We'll start by looking at the 'why' — The carbon question. Then we'll move onto the 'how' — Nine ways to reduce your carbon footprint in FMCG logistics. After that, we'll explore the 'where next' — Future developments: Where are we heading? Finally, we'll bring it all together with a call to decarbonise.



CHAPTER 1

The carbon question

Before tackling the 'how', it's important to first take a closer look at the 'why'. FMCG companies must reduce carbon emissions from their logistics as a matter of urgency. But what are the drivers?

Environmental damage

Sadly, at present, FMCG supply chains are hugely wasteful. Data from McKinsey, for instance, shows that 40% of all food loss occurs in the post-harvest agricultural supply chain between producers and consumers.²

Not only is it a matter of food waste, but consider also the materials used to protect and transport the wasted goods. According to Eurostat, of all the plastic packaging waste produced in Europe, less than half is recycled,³ while the transport and logistics sector emits 3.5 billion tonnes of carbon emissions per year.⁴

Customer and employee demands

Consumers are increasingly making environmentally conscious decisions. According to Deloitte, 40% of consumers choose brands that have environmentally sustainable practices to help them pursue a more sustainable lifestyle.⁵ At the same time, KPMG reports that, when it comes to reducing emissions, "greenwashing" will not pass scrutiny in 2023.⁶

It's not just coming from customers though. Employees are piling on the pressure too. For example, HR News reports that over a third (35%) of UK employees are willing to quit their job if their employer takes inadequate action to reduce its carbon footprint.⁷

Government regulations

Adding to both these drivers is government regulation, which is still required to help businesses change direction. The most visible being the Paris Agreement, the legally binding international treaty on climate change, adopted by 196 parties in 2015, which aims to limit global warming to 1.5°C.⁸

To achieve this, the EU plans to cut net emissions by 55% by 2030 and reach net zero by 2050.⁹ Every FMCG business operating in the EU has a part to play here. However, commitments alone aren't enough. According to Gartner, organisations that have set net-zero targets but haven't yet established the supporting roadmap and financing will need to reframe their interim goals.¹⁰ Will your organisation? Or, more importantly, how close to net zero can you go?

⁴ How to reduce your carbon footprint in FMCG logistics



CHAPTER 2

Nine ways to reduce your carbon footprint in FMCG logistics

Having explored the 'why', the case for urgent carbon reduction action is clear. Now the focus is on how you can make those changes.

So, we've outlined nine of the most effective ways to reduce your carbon footprint in FMCG logistics. Let's dive in.

1. Establish your carbon footprint

The first place to start is with emissions reporting. You can't draw up a plan to reduce your emissions – or an effective one at least – unless you know what your emissions are and where you can have the biggest impact. So, it's essential that you find a way of accurately tracking and reporting your supply chain's carbon footprint.

The Maersk Emissions Dashboard is one type of digital tool that can help with this. It complies with the Global Logistics Emissions Council methodology, consolidating emissions data across all carriers and modes of transport to provide enhanced carbon footprint analysis. Beyond simplifying carbon emissions reporting, it gives you the visibility to see the priority areas to invest in to make the biggest impact.

2. Digitalise processes

The next priority area is digitalisation. Of course, this is a broad topic that involves many aspects, but at its core, digitising processes and connecting digitalised systems helps you gain a big-picture, end-to-end view of your FMCG logistics. And that helps you make better, more informed decisions about your supply chain. If you have the visibility to see that a product doesn't yet need to be at a certain checkpoint, for instance, you can use this insight to improve container utilisation and transport the product when it's required.

Alternatively, once all your data is integrated you can start using more advanced approaches like modelling and digital twins to understand the implications, both positive and negative, of adjustments in your supply chain. For example, you can test scenarios to improve demand forecasting accuracy, resulting in lower safety stock and a higher percentage of direct-line loading to retailers. Then you can apply this model to reduce the carbon emissions or waste associated with intermediate handling and storage of goods.

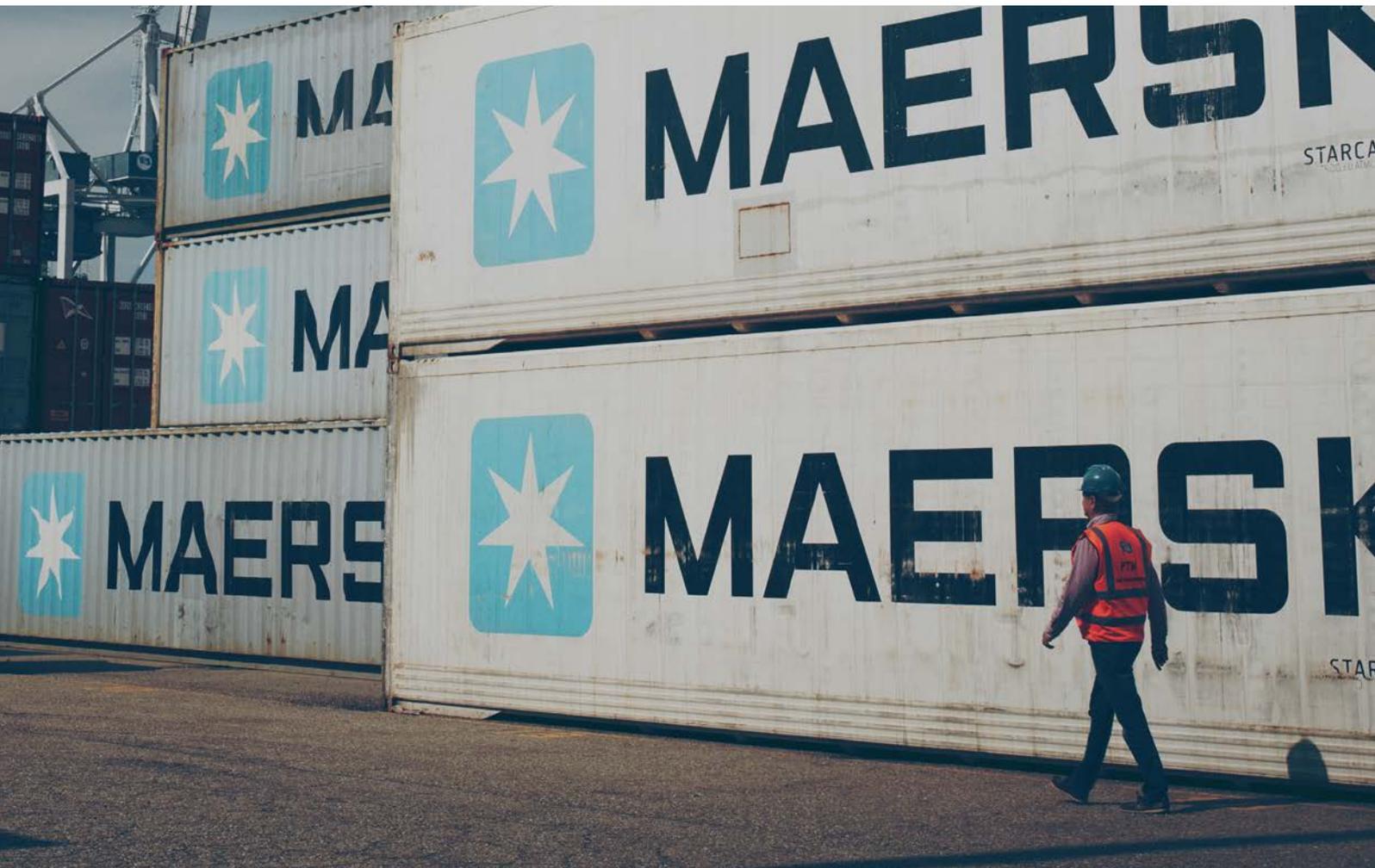
3. Strive for circularity

While there's no unified definition of a circular economy, many point to it being "an industrial economy that is restorative or regenerative by intention and design,"¹¹ and focus on the reduction of waste and the reusing and recycling of materials.

For FMCG logistics, the most realistic priority area is recyclable and reusable packaging, followed by reducing the carbon footprint of said packaging, with 20% of organisations wanting to have shifted their focus to this second priority by 2026.¹² However, according to ScienceDirect, "the need for sustainable packaging is visible... the gap between that need and FMCG's ability to match it is also apparent."¹³

Bain and Company advise that to bridge that gap, FMCG companies need to invest in understanding the following fundamentals: legislative and regulatory evolution; consumers' and retailers' preferences; technological breakthroughs and adoption; infrastructure requirements.

If your organisation takes calculated risks on these fundamentals, it can identify options to shift towards favourable packaging and after-use materials and the supply of recycled materials.



4. Shorten the supply chain

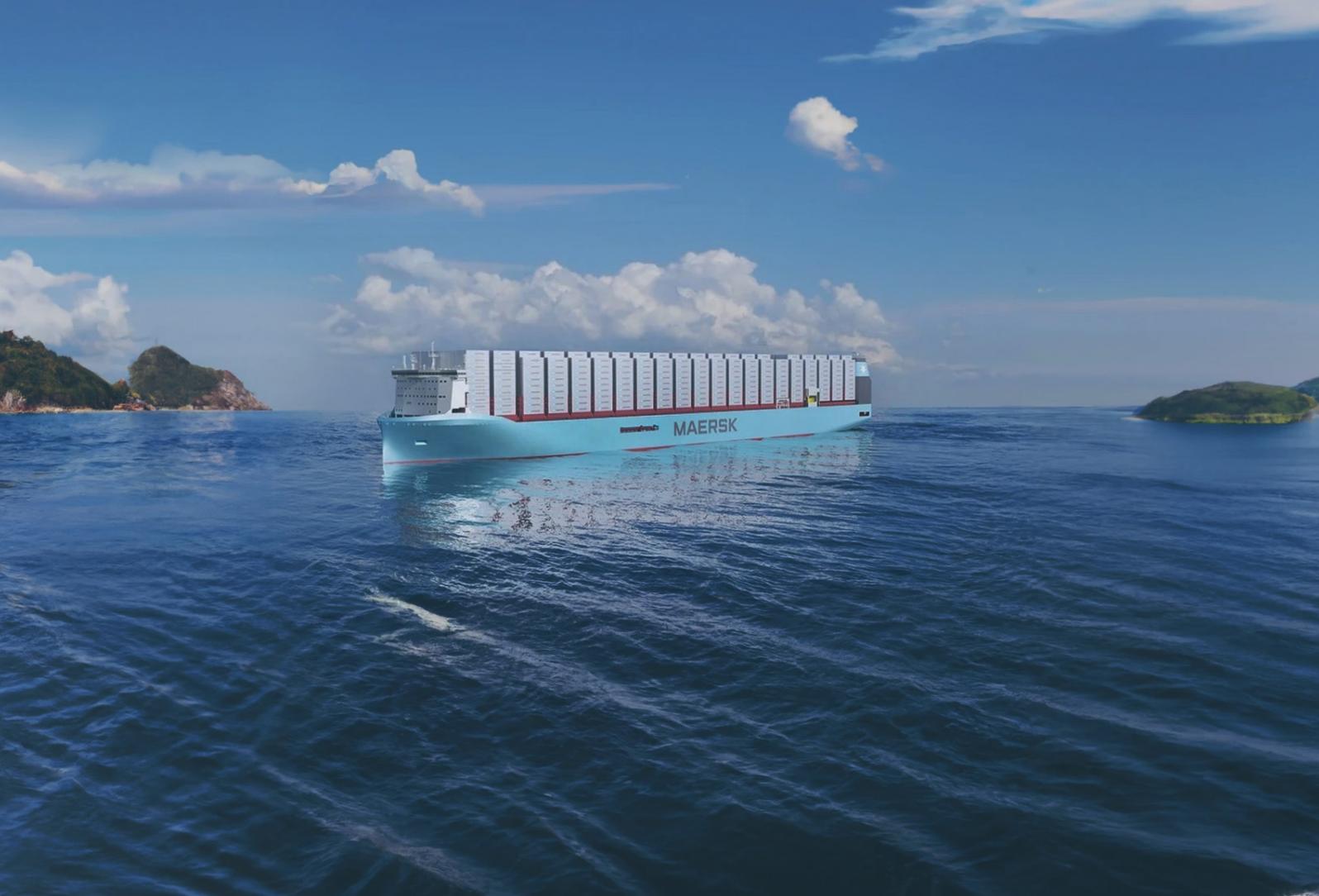
In our recent guide, we predicted that FMCG logistics will see more nearshoring and right-shoring in 2023. While this is due to several reasons, one of the most important is emissions reduction.

According to Maersk's Regional Head of Lead Logistics Europe, Kim Nigel Overman, "a shift in sourcing strategy and network design can support decarbonisation goals, but many factors need to be considered when making those supply chain decisions. Overall, emissions are a function of transport mode emissions intensity (which depends on the drivetrain and

type of energy used), distance, weight and vehicle utilisation.

"Shift of transport mode or reducing distances can have a significant impact as well, but optimisation of emissions impact by distance requires a detailed analysis and consideration of all factors. For instance, goods transported end to end by truck can create higher emissions when compared to a longer distance shipment, where ocean vessels combine with a short truck journeys to move to a final destination.

As ever, you'll need to weigh the advantages and disadvantages to your specific needs and objectives to help you decide if nearshoring is a suitable logistics strategy for your organisation.



World's first commercial liner vessel that can sail on green methanol. Ready to operate in 2023.

5. Integrate your transport modes

Your supply chain will function more efficiently if you integrate transport modes and capabilities. At Maersk, while we lead the decarbonisation agenda and advocate sustainable working practices, we never lose sight of our customers' critical business needs, and understand a balance must be struck between time, cost and sustainability.

A new product launch, for example, may necessitate the use of air freight to accelerate time to market, but if possible, it's better to use ocean or rail as they're typically more energy-efficient modes of transport. That said, the first steps towards a more sustainable aviation business are being taken thanks to the development of sustainable aviation fuel (SAF). You can find out more about that here.

With proper planning and agility built into your supply chain, you can consistently deliver on time while using more environmentally friendly transportation methods. Indeed, as customers are always at the centre of our work, transporting with Maersk means shifting our focus from selling schedules to managing speed and environmentally sustainable options.

We offer a two-way commitment partnership centred on keeping promises. As part of this, we consider not only the ocean, but also air, rail and road. Our customers receive a complete, integrated experience, allowing the flexibility to always meet the time options.

6. Opt for sustainable fuels

While sustainable fuel options have traditionally been limited, today ocean freighters powered by drop-in biofuels are in commercial use. These are the immediate viable solutions for decarbonisation, usually blended with diesel, which don't require engine modifications and can be used directly in ships. However, there's also hope for the 'future fuel' market. Fuels such as green methanol, which are derived from gasification, recycled fossil feedstocks or renewable electricity, will soon grow dramatically.

At Maersk, for instance, we've ordered 19 green methanol-enabled ocean vessels in total, the first of which is set to go into operation this year. When all 19 vessels on order are deployed and have replaced older vessels, they will generate annual CO2 emissions savings of around 2.3 million tonnes. We believe actions like this will stimulate the market and accelerate the scaling of green fuel, presenting more opportunities to decarbonise large-scale logistics.

And there are also more options on land. Zero-carbon electric railways in Europe, like the multi-destination Bremerhaven line in Germany, are powered using hydropower renewable energy.

7. Insist on electric vehicles for last-mile delivery

Furthermore, on land, there's another huge problem. Last-mile delivery is the most expensive part of the supply chain¹⁴, and it generates the largest portion of CO2 emissions.¹⁵

But there's now a choice. Since 95% of parcel delivery routes require ranges under 100 miles, today's commercial electric vehicles (EVs) have the capacity to easily fulfil these jobs.¹⁶ From a logistics perspective, that means the race is on to scale up EV production and get the vehicles into market to support inland challenges.

8. Optimise packaging and handling

Specialist handling and efficient packaging represent major opportunities to reduce your supply chain's carbon footprint. FMCG products need to be packaged tighter to minimise negative space. Then, in theory, you should be able to fit more products into a container, reducing volume occupied per unit, which should subsequently reduce the number of journeys you need to take.

Similarly, container triangulation methodology can optimise empty container utilisation by reloading empty containers with import and export shipments, saving fuel and reducing emissions.

9. Work with sustainability-minded partners

Finally, FMCG companies must resist the temptation to view their supply chains as a series of isolated operations. Instead, they should lean into Michael Porter's thinking that they're a network of connected activities performed in sequence to deliver a valuable product.¹⁷ Today, it's also worth building on this by adding in the need for end-to-end visibility, which is required to understand the movements between the connected activities.

Sustainability is an area where this theory applies. At a minimum, the pursuit of sustainability goals, especially carbon reduction goals, requires participation from all stakeholders in the supply chain. But to accelerate this process at the pace that's required, we must go further through deep horizontal and vertical collaboration. By pooling efforts, knowledge, assets and resources together, FMCG companies can unlock opportunities to optimise carbon emissions reduction.

For example, by collaborating with suppliers, customers, logistics providers or even your competitors, you can optimise container utilisation. Or you can reduce empty miles. Or you can eliminate unnecessary transport strings from the supply chain. Whatever the objective, it all starts with having the visibility to be able to identify these opportunities, and then collaborating to make them happen.



CHAPTER 3

Future developments: where are we heading?

At present, there are more opportunities to reduce carbon emissions in FMCG logistics than ever before.

And, relatively speaking, we're only at the start of our decarbonisation journey. So, where are we heading next?

For Maersk, the road ahead looks like this.



OUR DECARBONISATION COMMITMENTS



2030: Industry-leading green customer offerings across the supply chain



2030: Aligned with a Science Based Targets initiative 1.5-degree pathway



2040: Net zero across our business and 100% green solutions to customers

Our **customer commitment** to decarbonise their supply chains in time and a **societal commitment** to act and drive impact in this decade

"One of the key learning of the pandemic is that close collaboration is critical for success in volatile and disruptive market environments. Strategic partnerships can help to build up more agile supply chains, boost resilience, speed-up innovation, cut costs, avoid inventory shortages, and provide opportunities for the supply chain to become more carbon neutral"

Gunnar Pflanz, Global Vertical FMCG Manager

The exciting challenge for us and our FMCG partners is that now, with carbon reduction top of the agenda, no one is on this journey alone. The pressure to achieve net-zero logistics is monumental, and it'll only increase. But as every individual, policymaker and business has this shared objective, it should become easier to align plans and activities and deliver genuine ground-breaking progress.

Put simply, there's no room for compromise. Partnerships, investment, speed and innovation will sit at the heart of the future carbon reduction evolution.





CONCLUSION

The clock's ticking

The climate crisis can't be ignored any longer. The time to act is now. Your FMCG supply chain must move faster on the decarbonisation imperative.

At Maersk, with our ambitious net-zero targets, plans and commitments, we're well-placed to support your transition. From ocean freight carrier to end-to-end logistics solution provider, Maersk is a recognised and trusted partner in the FCMG industry. With our extensive expertise and assets, we can help you optimise inbound and outbound supply chains in Europe, enabling you to accelerate your carbon footprint reduction initiatives.

To find out how Maersk can support your decarbonisation journey, contact one of our FMCG logistics experts [here](#) or visit our sustainability page [here](#).

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