

EXCLUSIVE STUDY

ROADMAP 2025: Sustainability in European e-commerce

Strategies and consumer expectations for reducing
the carbon footprint of e-commerce

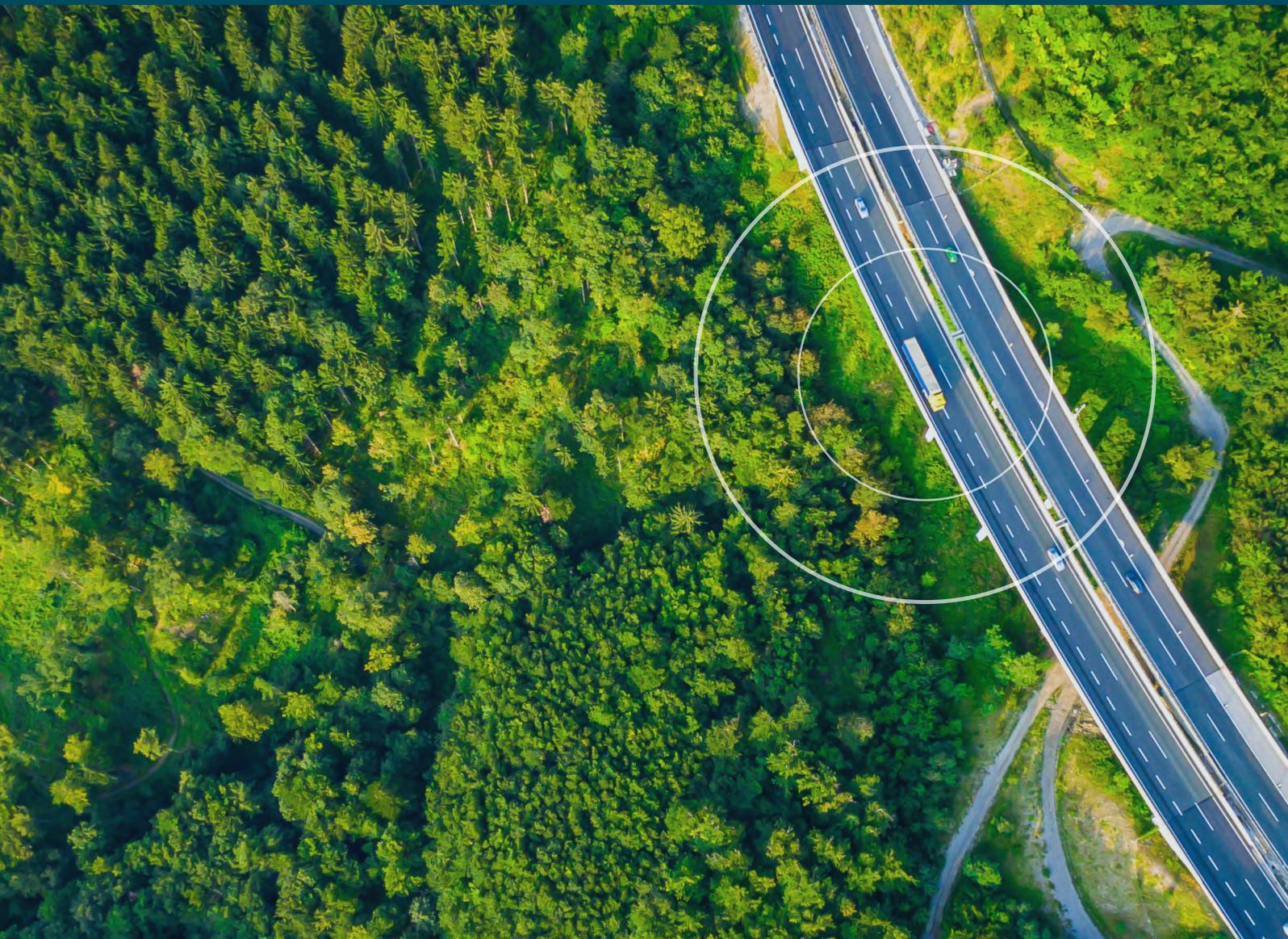
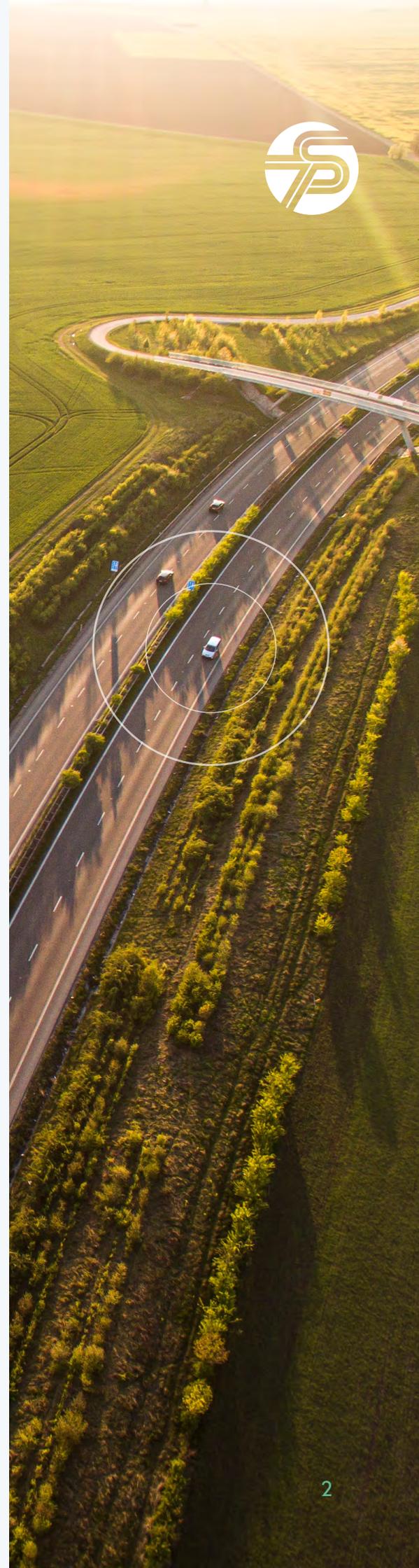




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INTRODUCTION

Everyone is talking about climate change, and consumer demand for sustainable consumption is rising – **90 percent of 18–24-year-olds, Generation Z, now say that all companies should make a positive social contribution and take responsibility for protecting our environment.**¹

Expectations regarding sustainability present many e-tailers with challenges that will only become greater as time goes on. Now more than ever, online retailing can be considered a growth industry: The pandemic recently gave its longstanding positive development an unprecedented boost² - and it seems that it has changed consumer behavior for the longer term. In **2020, 73 percent** of internet users in the EU made purchases online for personal use, and in **2021 it was 74 percent.**³ Compared to 2016, that means an increase of 11 percentage points in online purchases of goods and services. The frequency of online shopping has changed, too, with **62 percent** of Europeans shopping online more often than they used to.⁴

Even if actual figures for 2022 may fall below many of the positive forecasts due to the current consumer climate and the ongoing difficulties in global supply chains, there is still plenty of optimism in the market and expectations of above-average growth.⁵

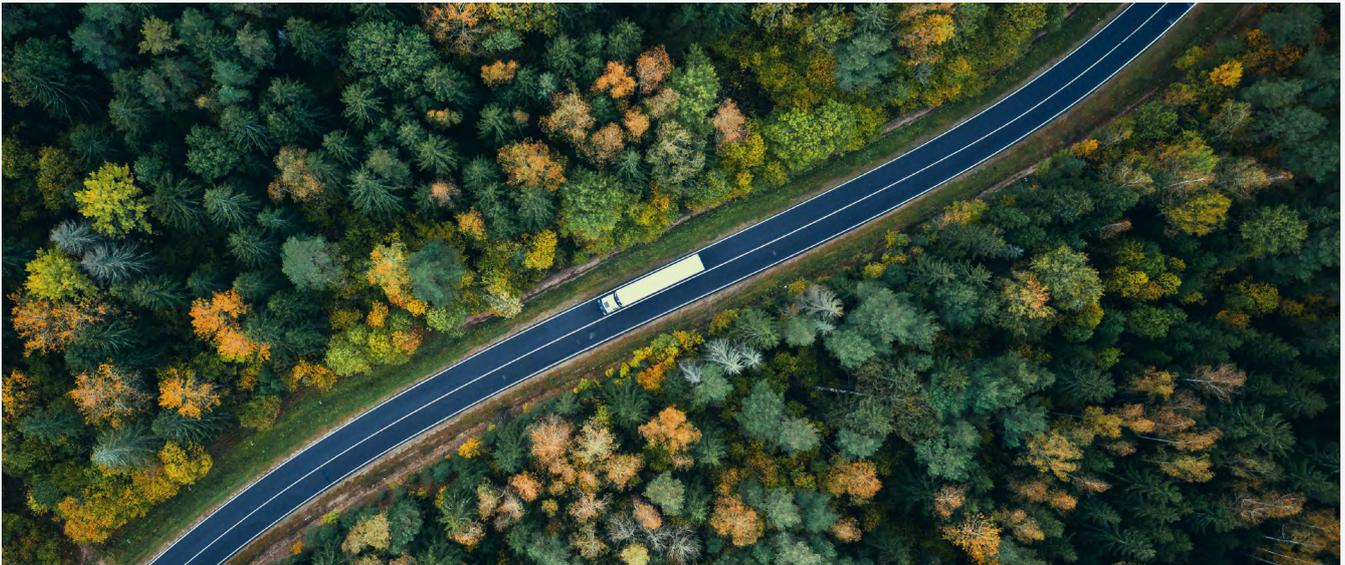
One consequence of this positive trend is the increase in transport volumes – and rapid, practical solutions to reduce the associated carbon emissions are currently not in sight.

So how can online retailers drive growth without coming into conflict with their customers' expectations? **What tools and best practices can they use to make their business more sustainable – and do climate-friendly concepts always have to come at the cost of sales and margins?** Read this study to discover which areas of online retail have the greatest potential for increased sustainability, which initiatives to reduce the carbon footprint are delivering the most promising results and why it can be worthwhile for e-tailers to commit to protecting the climate.

In producing this study, Seven Senders and the market research institute Appinio teamed up to survey **3,500 online shoppers** in **Germany, France, Italy, the Netherlands, Austria, Spain, and Switzerland** about their attitudes and expectations regarding sustainability in online retail. The findings have been integrated into a metastudy that compares consumers' perspectives with the current situation in cross-border e-commerce. On the following pages, you will find key facts and best practice examples from different countries as a source to help and inspire you to tap into your own potential for more sustainable practices.



CLIMATE PROTECTION AND THE ONLINE BOOM: The carbon footprint of e-commerce



Online retail in the EU has been booming for years and has even benefited from the recent crisis period, with e-commerce sales rising from EUR 621 billion in 2019 to EUR 757 billion in 2020 – an increase of more than 20 percent in the space of a year. And in 2021, sales saw another two-digit increase, rising a further 11.1 percent. The share of GDP generated by internet trade across the EU increased from 3.93 percent (2019) to 4.29 percent (2020).⁹

In 2021, the Netherlands were once again in the top 10 countries for online shopping, with 91 percent of consumers making purchases online. The Swiss (90 percent), Germans (87 percent) and French (78 percent) also like shopping online, more than the Austrians (74 percent), Spanish (67 percent) and Italians (54 percent). The Germans show the greatest purchase frequency (32 percent have made an online purchase at least six times in the last three months), topped only by the British and Icelanders (47 percent and 37 percent respectively, EU average 18 percent).¹⁰

The greatest **increase** in **online retail** from 2020 to **2021** was seen in Switzerland (+37 percent). Spain recorded a 29-percent increase, whereas countries that already had significant levels of online retail saw smaller gains, with 9 percent in France, 7 percent in Austria, 3 percent in Italy and the Netherlands, and 2 percent in Germany.¹¹

A significant jump was recorded in cross-border shipments. According to a 2020 survey, 22 percent of total B2C sales in 15 major European e-commerce markets came from cross-border retail.¹² The movement of goods between EU countries rose by almost half from the first to the second half of the year.¹³ In Finland, Austria, Ireland, Norway, Switzerland, and Sweden, online orders abroad comprised nearly 50 percent of the country's total e-commerce sales.¹⁴ In 2021, cross-border online retail in Europe grew by a further 17 percent to a total volume of EUR 171 billion.¹⁵ Online retailers based in the EU fared particularly well, recording a 14.6 percent increase in cross-border sales in 2021 compared to the previous year.¹⁶

Currently, 73 percent of e-commerce customers in Europe purchase from providers abroad.¹⁷ For many e-tailers, selling abroad has become a key expansion strategy.¹⁸

TAKE-AWAY 1

Thanks to low technical barriers to entry, expansion into other European countries is an easy way for many online shops to scale their business. Studies show that merely offering products for sale internationally produces a two-digit increase in sales. Expansion can also lead to some surprising benefits. For example, online fashion retailer BonPrix saw a significant drop in its returns rate through sales outside Germany. International marketplaces and the support of expert cross-border shipping partners additionally ensure that expansion abroad is carried out in a simple, professional, and scalable manner.



However, this development is also fuelling the cross-border flow of goods – the volume of traffic caused by transporting goods for online retail is increasing by around two percent a year. This mostly affects the transit countries of Germany, France, Italy, and Benelux, but these are also some of the most active participants in intra-European retail.²⁰ At least, for now. The trend toward more sustainable consumption might motivate consumers to focus more on regional suppliers.²¹

But what is the actual impact of the strong growth in e-commerce on the environment and the climate? And does online shopping, with its flows of goods and transport, all the packaging, and its higher return rates, really have a bigger environmental footprint than brick-and-mortar retail? Many detailed studies over the last couple of years have considered these questions.

In general, carbon emissions and other environmental impacts occur in all areas of consumption – from production to disposal of the product after use. Production alone is responsible – depending on the product – for between 30 and over 90 percent of all the greenhouse gasses emitted over the whole life cycle. Retail and distribution – both offline and online – are only responsible for between two and ten percent of the total environmental footprint.²²

Emissions in the life cycle of products

Examples



69% Production
10% Trade/Sales
1% Disposal
20% Usage



30% Production
<1% Trade/Sales
<1% Disposal
69% Usage



91% Production
2% Trade/Sales
6% Disposal

Data: Laptop - HP 2019, E-Book Reader - Maslennikova et al. 2008, Book - Hatae and Hansuebsai 2016

However, it is important not to underestimate these environmental impacts, particularly when comparing stationary and online retail. Over the last few years, international studies have repeatedly proven that **online retail is much better than its reputation** among many consumers.²³

If you take all the individual contributions from the whole supply chain – from storage to sales, packaging, and transporting the goods to the customer’s home – separated according to trade route and product type, the findings are unanimous. In more than 80 percent of cases, online retail has an **environmental advantage over brick-and-mortar retail**.²⁴

The latter’s significantly worse life cycle assessment rests on two key factors: the environmental impacts of the store or business and those of customers’ individual journeys. These are so substantial that they more than compensate for the negative effects of larger shipping boxes and the deliveries made by online shops.²⁵ The public perception may be that delivery vehicles are double-parking and clogging up our towns and cities, but **scientific calculations estimate that e-commerce actually results in significantly less (between four- and nine-fold) traffic**.²⁶

Overall, purchasing a product online seems to produce an average of 36 percent less CO₂ than purchasing it in a brick-and-mortar store.²⁷ One study has even estimated that non-food offline retail generates on average 1.5–2.9 times more carbon emissions than e-commerce.²⁸



Online retail also has a smaller environmental impact when it comes to storage. When there is a large volume of products and shipments, both the retailer and the distribution centers experience significant scaling effects that improve their eco-balance. Put simply, a **large warehouse that stores products for 100 online shops uses fewer resources than 100 retail stores with small storage facilities.** The delivery method and its higher level of automation also make online retail more efficient – large warehouses are 16 times more energy-efficient or have a lower energy footprint versus retail stores. Calculations based on sustainability and annual reports of several online retailers (Zalando 2019; Otto Group 2019; Tchibo 2016) have shown “CO₂ emissions of around 20–80 g when purchasing a product worth EUR 50.”²⁹



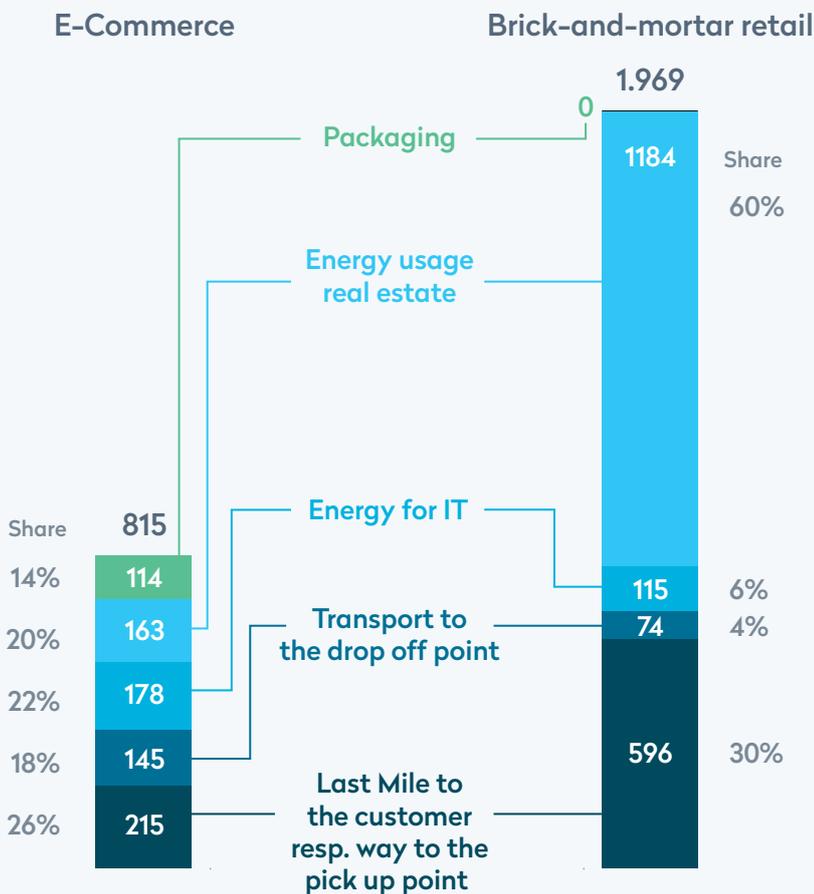
TAKE-AWAY 2

However you look at it, online shopping is considerably better for the climate than purchasing from a local store. Since many consumers think that the opposite is true, it is important to provide comprehensive information that clarifies the environmental advantages of e-commerce and to address customers' concerns. A business that can communicate this to customers while also explaining the specific efforts it is making to reduce its own carbon footprint will also increase customer retention and give itself a competitive advantage.³⁰



Stationary retail thus produces considerably more emissions in almost every respect than e-commerce. The scale of the difference varies between countries, with the relative impact of online retail in Germany being much better than in other countries, as its high density of brick-and-mortar retail results in three times more carbon emissions than online retail. In Spain, Italy, and the United Kingdom, the ratio is still around 2:1. On average, the calculated carbon emissions per product sold in brick-and-mortar retail are higher than in online retail by a factor of 2.3.³¹

Average CO₂ equivalents released per product sold



2.3

Factor by which the brick-and-mortar retail is higher

Source: Oliver Wyman, "Is E-Commerce good for Europe?", Economic and environmental impact study, p. 64

However, this doesn't mean that online retail can't make any improvements to protecting the climate: even reducing emissions by a comparatively small amount can result in a meaningful, positive contribution to climate and environmental protection. The levers offered by e-commerce and their potential effectiveness can be seen by looking at the scope and nature of the environmental impacts caused by the individual phases of the retail process.³²

FROM PRODUCT SEARCHES TO THE PARCEL LOCKER: The greatest levers for decarbonization

- > IT and internet: 5–15%

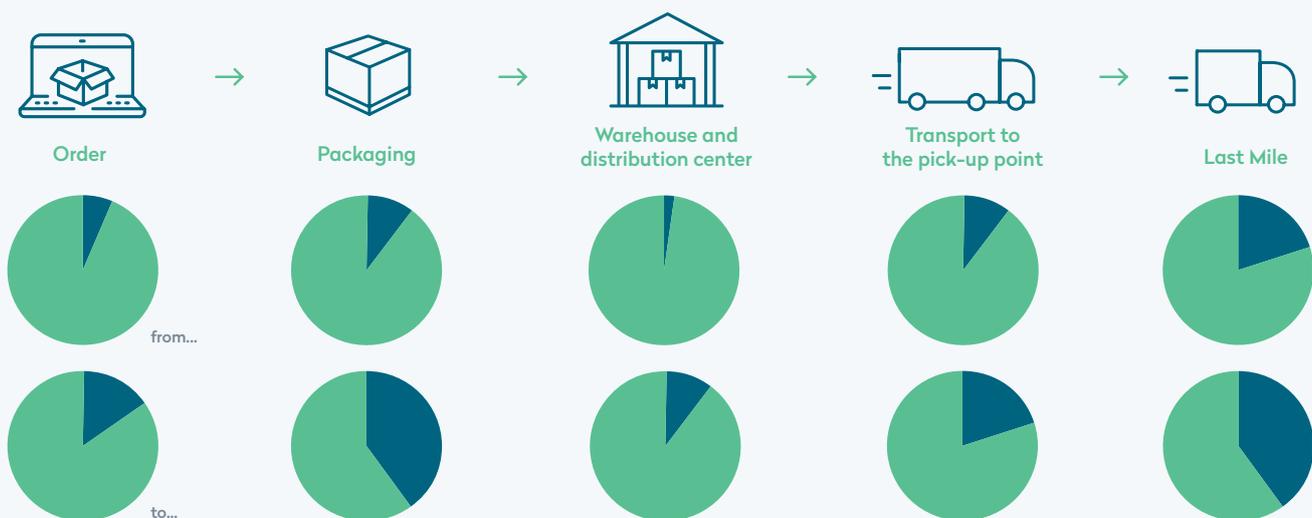
- > Packaging: 10–40%

- > Warehouses and distribution centers: 2–10%

- > Transport to the destination parcel hub: 10–25%

- > Delivery: 25–40%

Breakdown of the environmental impact in e-commerce



■ Share of CO₂ emissions in e-commerce

Source: own representation by Ökopool - Institut für Ökologie und Politik GmbH

Consumers' internet use in Europe comprises a considerable proportion of total electricity consumption and, thus, our carbon emissions. This doesn't just mean the energy usage of end devices – 1 million searches on Google (around 3.5 billion worldwide every day) use as much energy as a German single-person household in four months.³³ The largest share of internet traffic comes from streaming media content, now responsible for more than half – 61 percent, in fact – of all internet traffic, with double-digit annual growth rates.³⁴ It is challenging to introduce measures to reduce the environmental impact of this area of activity; some have included campaigns to encourage data minimization and projects to generate heat using waste heat from data centers.

A large proportion of emissions from online retail come from the **manufacture**, volume and disposal of **packaging**. Manufacturers have already made a range of changes in this area, including reusable or recyclable packaging concepts³⁵ and outer packaging that can be returned or is standardized to optimize the loading of delivery vehicles. Experts have estimated that widespread use of reusable packaging could result in emission reductions of 22–45 percent.³⁶



BEST PRACTICE

In Germany, Tchibo, Otto and Avocadostore have been working together since 2020 in a so-called “cooperation lab”, with the aim of gathering comprehensive insights about how to design recyclable packaging systems that are both practical and commercially viable. In the first stage, the RePack reusable delivery bag was tested. These are made from recycled plastic, can be folded by the customer down to the size of a letter, returned in the mail for free, and re-used 20 times or more. Customer feedback and return rates were far better than expected: Tchibo alone was able to replace around 7,500 single-use shipping bags with RePack multi-use shipping bags.³⁷

In the United Kingdom, Amazon wants to eliminate single-use plastic packaging in the future. This new rule also applies to its Marketplace and thus products sold by merchants. Instead, paper bags and cardboard envelopes are to be used, as these have much higher recycling rates. Larger orders will be shipped in cardboard boxes or, where possible, without any additional packaging.³⁸

When it comes to building emissions, e-commerce has a clear advantage over brick-and-mortar retail, as the former uses less storage space and doesn’t need real estate from which to sell goods. Measures here to make more efficient use of lighting, heating, and other operational resources are certainly positive. Yet, they won’t make any significant contribution to improving the ecological balance of online retail as a whole.

By contrast, the lion's share of emissions generated in online retailing comes from transport – the first and last mile together make up between 35 and 65 percent of the overall environmental footprint. This is, therefore, by far the greatest lever when it comes to reducing the environmental footprint of online retail.

And it starts with the procurement of products manufactured outside Europe. A direct e-commerce shipment by air from a distribution center in Asia produces 25 times more CO₂ than a shipment of a product coming from a consolidated warehouse in the EU. This is because products can be shipped in large quantities by sea and held in storage before being ordered and delivered to customers by road.³⁹



BEST PRACTICE

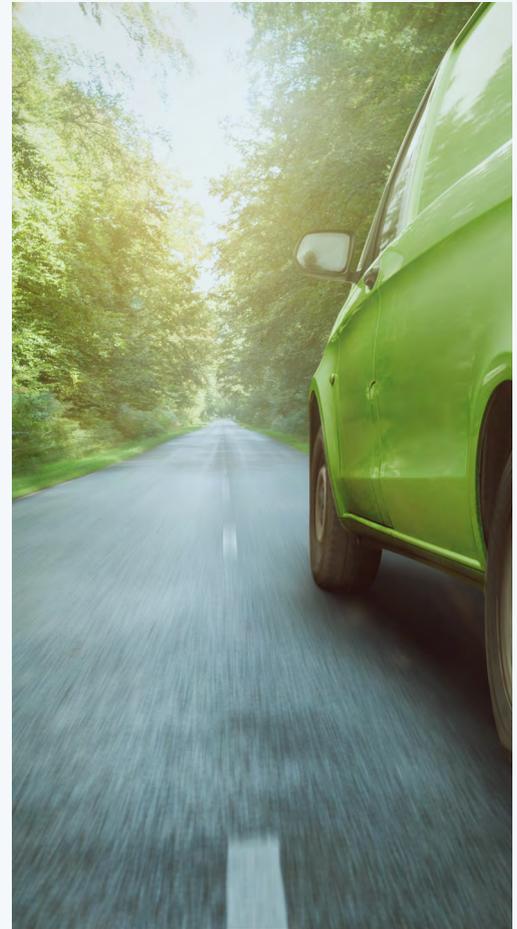
Sisley is a French family-owned business that creates and manufactures high-quality cosmetics. Ninety percent of all products are made in France, the rest in other European countries. Sisley declared early on that it wanted to continually reduce its carbon footprint. To do so, it improved its logistics by introducing new special format transport pallets that reduced the number of containers transported by sea and reduced the carbon emissions of each container by 25 percent. Sisley started moving away from transporting products by air freight back in 2014, and by 2019, 70 percent of its products were shipped by sea, reducing its CO₂ emissions by 90 percent.⁴⁰

Within Europe, the cross-border transport of goods produces considerable emissions. On longer routes between 300 and 500 kilometers, semi-trucks weighing over 15 metric tons are predominately used - often also due to the lack of good railway links between warehouses and distribution centers. In Germany, these are responsible for around two-thirds (66 percent) of transport emissions, even though semi-trucks make up less than one-sixth of all vehicles used to transport of goods (14 percent).⁴¹ In total, 10–25 percent of the environmental impacts of online retail are produced by what's known as the *first mile*.



Even higher is **the impact of the last mile** – the delivery from the final distribution center to the customer, generally their home address. According to a recent study, the CO₂ impact of the last mile is roughly double that of the emissions produced by the shipping packaging,⁴² and in the worst-case scenario, almost double that of the first delivery stage.⁴³ Depending on the calculation method used, the proportion of greenhouse gas emissions of the last mile **can be up to 66.8 percent** of the whole retail process, from the initial order through to delivery.⁴⁴

However, several approaches can be considered to reduce this disproportionately large environmental impact. The electrification of vehicle fleets for short and long journeys, minimizing empty-load journeys, and consolidating deliveries using AI-supported digital planning tools can help reduce greenhouse gas emissions in e-commerce logistics in the future. Furthermore, measures to shorten routes or even save journeys entirely, such as **out-of-home delivery concepts**, i.e., delivery to a parcel locker or other self-service locker – would be even quicker to implement and more effective.



BEST PRACTICE

Dutch delivery service providers Albert Heijn, Bol.com, and Budbee, are working together to offer sustainable returns and encourage the use of parcel lockers – collection points across 700 branches of the three companies are being turned into parcel lockers where customers can pick up and return parcels.⁴⁵

Sameday Courier, part of the eMAG Group, developed Easybox in 2018 – a secure, digital locker system that enables parcel pickup at flexible times. By the end of 2020, nearly 1,000 units had been installed in 19 Romanian cities. Since 2020, Easybox has also been available as a return point for products. Studies have shown that collecting parcels from an Easybox locker system has the potential to reduce CO₂ emissions by 20.5 percent compared to traditional home deliveries. In other words, if a transport company was producing estimated carbon emissions of 300 g for one parcel delivery, that would drop to 14 g if they used Easybox. This enabled eMAG to reduce its direct carbon emissions in 2020 by 15.8 percent.⁴⁶

The idea is that instead of driving directly to 100 or more recipients in a neighborhood – possibly with several vehicles and repeated journeys because no one was home on the first delivery attempt – all the parcels are delivered once to a collection point close to everyone. Customers can then collect their parcel any time by entering a code, ideally on the way home from work or when they're out doing other tasks.

On average, out-of-home delivery saves around 300 grams of CO₂ per parcel compared with delivery to a home address by avoiding unnecessary stops, multiple delivery attempts and, above all, the many stopovers on the journey. If delivered to an out-of-home facility, many more parcels can be delivered per stop.⁴⁷

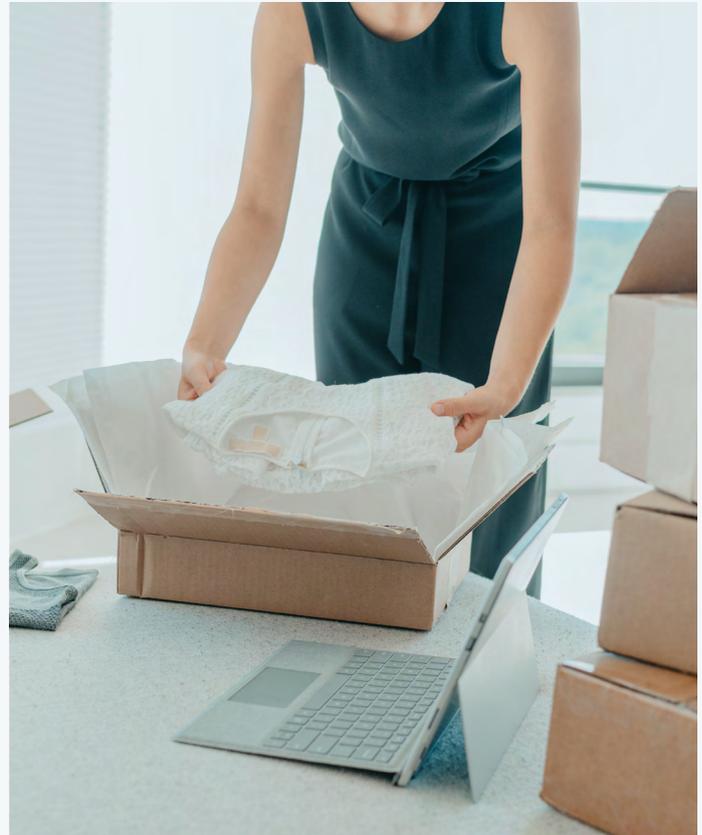


TAKE-AWAY 3

Environmentally-conscious e-commerce providers can make significant progress towards achieving their sustainability goals by providing information about the ecological benefits of out-of-home delivery and highlighting the corresponding delivery options during check-out. The Dutch tool Bewust Bezorgd calculates the most sustainable delivery option for several online shops. It has been proven that providing information about the carbon impact of different shipping options can lead to changes in behavior. Twice as many consumers opted for delivery to a pick-up point if this was the most sustainable option. If the sustainable alternative was visually indicated with a green leaf, it was chosen almost four times as often.⁴⁸



However, savings in transportation and delivery do not just depend on the will of the retailer. Customers need to be informed of the impact and encouraged to consider options such as out-of-home deliveries. The same applies to purchasing behavior, as **a quarter of emissions** from the transport of goods ordered online relates to **returns**.⁴⁹ Online fashion retailers complain that the shopping cart is being used as a digital changing room, with a large number of goods returned to the retailer after being tried on.⁵⁰ However, an analysis from 2019 showed that around 58 percent of returns in Germany were because of the wrong size or incorrect or missing sizing information.⁵¹



TAKE-AWAY 4

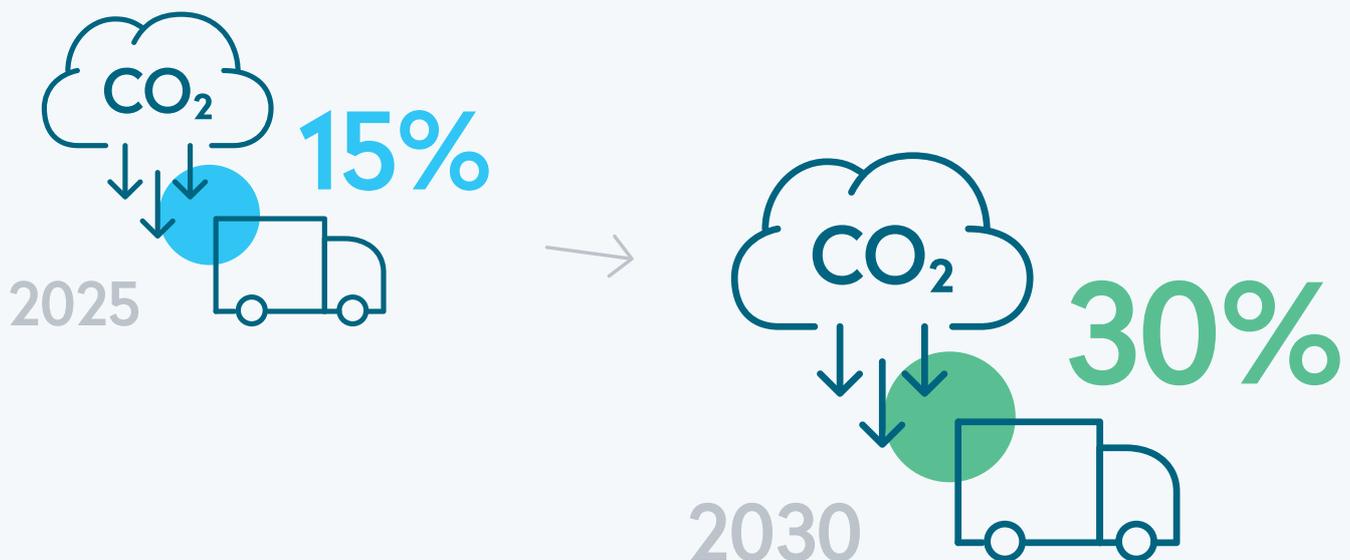
Returns are not only an environmental problem; they also reduce e-commerce margins. Therefore, sustainable retail needs to involve continuously improving product descriptions and empowering customers to select products correctly. Conscious consumption also includes having information on the environmental impact of returns and automated shopping cart monitoring with appropriate notifications if customers want to buy the same products in several sizes or colors.



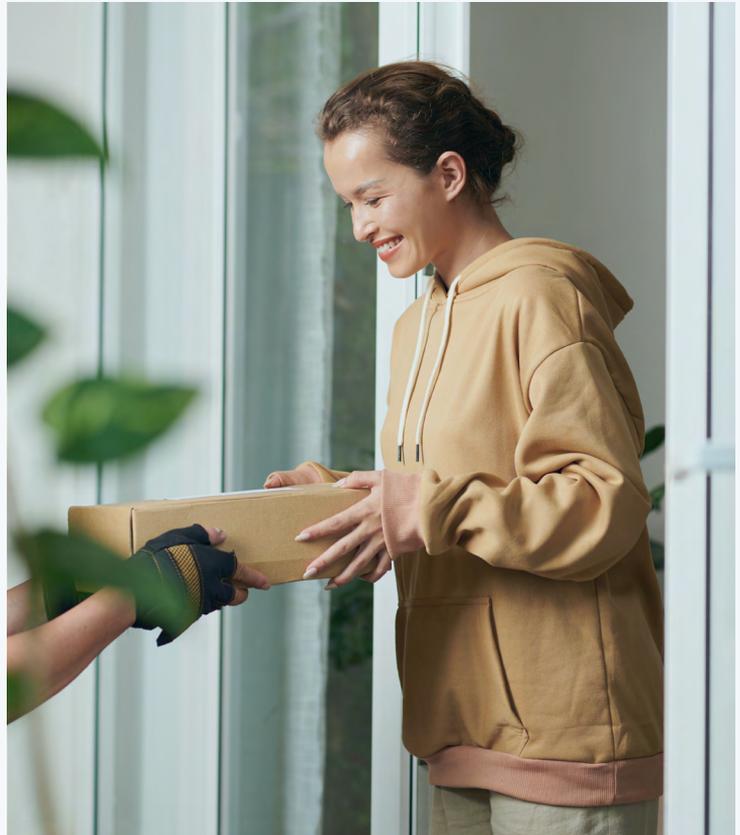
MEASURE, SAVE, OFFSET: The green strategy for online retail

However, most of the options known today for making online retailing more ecologically compatible and climate-neutral in the long term will not be effective overnight. Recyclable packaging concepts⁵² need to be coordinated and tested with sorting facilities, returns loops established – and there need to be customers willing to pay the additional costs. New building regulations will ensure that buildings, warehouses, and distribution centers have a smaller environmental footprint. And the existing legislation with strict requirements on truck manufacturers, fines for unabated carbon emissions, and bans on entering inner cities will help push through alternative, more climate-friendly motors in the most polluting heavy-duty vehicles.⁵³ Realistically, many of the changes are a long way off. It is estimated, for example, that only 30 percent of Europe's long-distance heavy goods fleet will be carbon-neutral by 2030.⁵⁴

The EU has mandated that by 2025, the carbon emissions of commercial vehicles per kilometer must be reduced by 15 percent compared to 2019. For 2030, the target for commercial vehicles provides for a further reduction of 30 percent.



One way of showing an environmentally-conscious mindset and appealing to like-minded customers is through **insetting** – where projects of a sustainable nature are realized within the company or its supply chain. They may include tree-planting projects or converting an office building to renewable energy. However, it can also involve specific changes in current processes and activities to local biodiversity, save water or improve the recyclability of products.⁵⁵

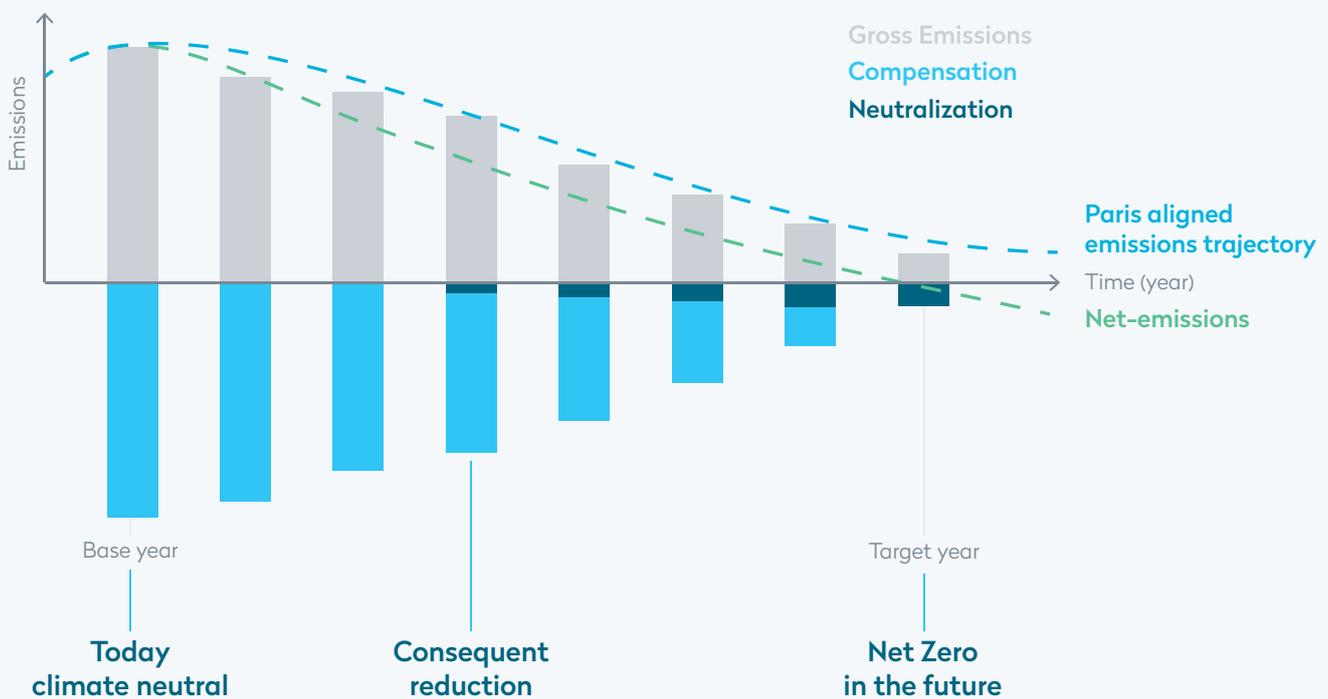


TAKE-AWAY 5

Energy-saving lighting in a warehouse or production facility, company bicycles or a paperless office not only help to reduce costs for the company, they are also a visible and measurable way of optimizing the environmental footprint of an online shop. For many customers, seeing that a company has measured and communicated its environmental footprint is a criterion when choosing an e-commerce provider.



Nevertheless, as time is of the essence and climate change doesn't leave us much leeway for lengthy adjustments, offsetting measures to reduce a company's carbon footprint are becoming increasingly prevalent in online retail. In addition to reducing emissions, compensating for environmental impacts through **offsetting projects** represents a "golden bridge" to a low-emission or even emissions-free future, in which parallel efforts to reduce emissions can be implemented and take effect.⁵⁶



The first step is to identify areas where carbon emissions can be actively reduced – and to either realize these reductions immediately or assign a future date for their realization. Companies that cannot reduce their carbon emissions in the short term using appropriate measures can first calculate the scope of these emissions to then compensate them via offsetting projects or incentives.

Until now, the greatest **challenge** has been **correctly calculating a company's environmental footprint** – according to a recent study by the Boston Consulting Group, only nine percent of companies in Europe can document the data used for their carbon management fully. Due to high demand – 85 percent of European companies are interested in reducing their emissions – there is already a market for new technologies and tools for gathering and evaluating the data.

One possible method for calculating the carbon emissions generated by shipping products bought online is the one Seven Senders developed for the e-commerce industry to facilitate **offsetting cross-border shipments**. It was certified by **DEKRA** in 2021 and comprises three components:



1. Calculating the first mile

The logistics service provider knows the specific transport routes and the precise distance a product travels from the sender to the recipient. For each transportation stage, it knows how many pallets were loaded in which type of vehicle and how they are allocated to each customer. Based on this data, the carbon emissions of each transport route can be calculated, for example, from a customer's warehouse in Berlin to the hub of the chosen delivery service provider (last mile carrier) in Milan. This CO₂ figure can then be broken down into the number of pallets transported for each specific customer.

2. Calculating the line haul of the last mile carrier

The second step is to calculate the carbon emissions of the last mile carrier's line haul, for example, from the hub in Milan to the receiving depot in Catania. These distances can be reasonably estimated. Also factored into the CO₂ calculation is the number of kilograms transported: the heavier the parcel is and the further it is being transported, the higher the carbon emissions.

3. Calculating the last mile

Once the shipment has arrived in Catania, it has literally reached its last mile – and at this point, the degree of sustainability depends on whether the shipment is being delivered to a PUDO location or to the customer's home. On average, delivery to a PUDO location saves 500 g of CO₂ per parcel compared to delivery to a private address. When calculating the carbon emissions of this stage, assumptions are also made using a DEKRA-certified model. Lastly, all three legs of the journey and the resulting CO₂ emissions for the delivery and the online store are added up - and offset using appropriate, certified measures.

The **effectiveness of carbon offsetting** as a short-term strategy to compensate for unavoidable emissions in the short term **is internationally recognized** – and enables the faster achievement of emission reduction targets that would not be achievable in the same amount of time through other means.⁵⁸ There are no statistics that show the proportion of e-commerce providers who are currently using **offsetting** measures to reduce their environmental footprint. However, most of the major marketplaces – which are responsible for around half of the volume of e-commerce in Germany – are committed to it.⁵⁹ And the number of online retailers who offer climate-neutral shipping through offsetting is growing. In the Netherlands – one of the leading nations in Europe when it comes to climate protection – 40 percent of online shop providers confirmed in a recent survey that they want the sustainability of e-commerce deliveries to be made obligatory in law.⁶⁰

The e-commerce industry wants to see strict requirements applied to climate protection projects connected to offsetting. As one of the current priorities of its work, the European umbrella organization E-Commerce Europe calls for the provision of information to “substantiate environmental claims [...] that can be improved using a digital product passport”.⁶¹



Practical, widely recognized offsetting methods go well beyond constructing solar parks and wind turbines or planting trees. Some projects focus on **forestry** and land use, with measures to introduce greater **energy efficiency** or switch energy sources, and **projects that promote renewable energies** or sustainable waste disposal.⁶²



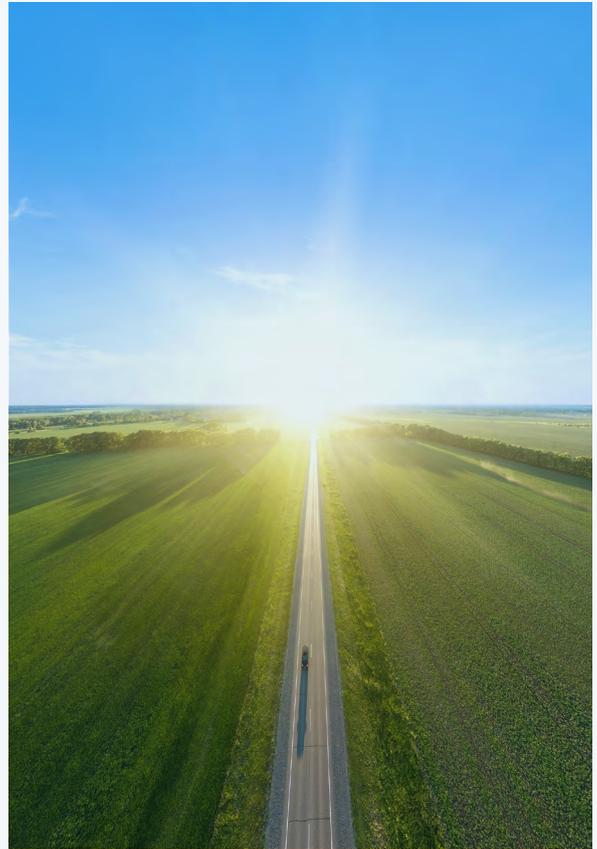
TAKE-AWAY 6

Offsetting is a rapidly effective, scientifically accepted measure that can be clearly documented using certified methods. And can effectively reduce the carbon footprint of an e-commerce organizations' shipping and logistics emissions practically overnight – at least as long as no other climate-friendly shipping options that produce minimal or zero carbon emissions are available, such as transport using electric trucks. That is why the number of online retailers and marketplaces offering their customers these options is growing. At the same time, they are raising awareness of the consumer action required to achieve climate neutrality in online retail.



In short, there are several ways of connecting growth and success in online business with sustainability. And even where it is not possible to realize immediate, positive climate effects, making a commitment to protect the environment and reduce CO₂ is effective in itself. According to our survey of 3,500 online shoppers across seven European countries, **more than half of online shoppers** state that they are concerned that the increase in e-commerce is causing **problems for the environment**. And even more of them would like to see online shops offering sustainable delivery options.⁶³

E-tailers interested in this should use these findings to set themselves apart – few online shops currently offer a green shipping method on their checkout page. As our latest consumer study (starting on p. 24) shows, customer interest in sustainable consumption has never been greater – and their willingness to pay more for this is increasing, too.



BEST PRACTICE

Digitec Galaxus AG is the largest online retailer in Switzerland, with sales of CHF 2.122 billion in 2021. The company was the first online store in the German-speaking world to introduce a new type of CO₂ compensation model for its entire product range in 2021. When customers check out, they can choose to offset the carbon footprint of their purchase. The underlying model considers the whole supply chain, from the procurement of raw materials to production and home delivery. The precise amount of carbon to be offset is calculated for each and every product.⁶⁴

At the end of 2020, eBay started a major climate action project using carbon offsetting. Customers now have the option of offsetting the carbon emissions of the product they are purchasing by supporting climate action projects when they check out. The response from customers has been consistently positive – the offsetting option was chosen 10,387 times in the last three months of 2021 alone, saving 580 metric tons of CO₂.⁶⁵

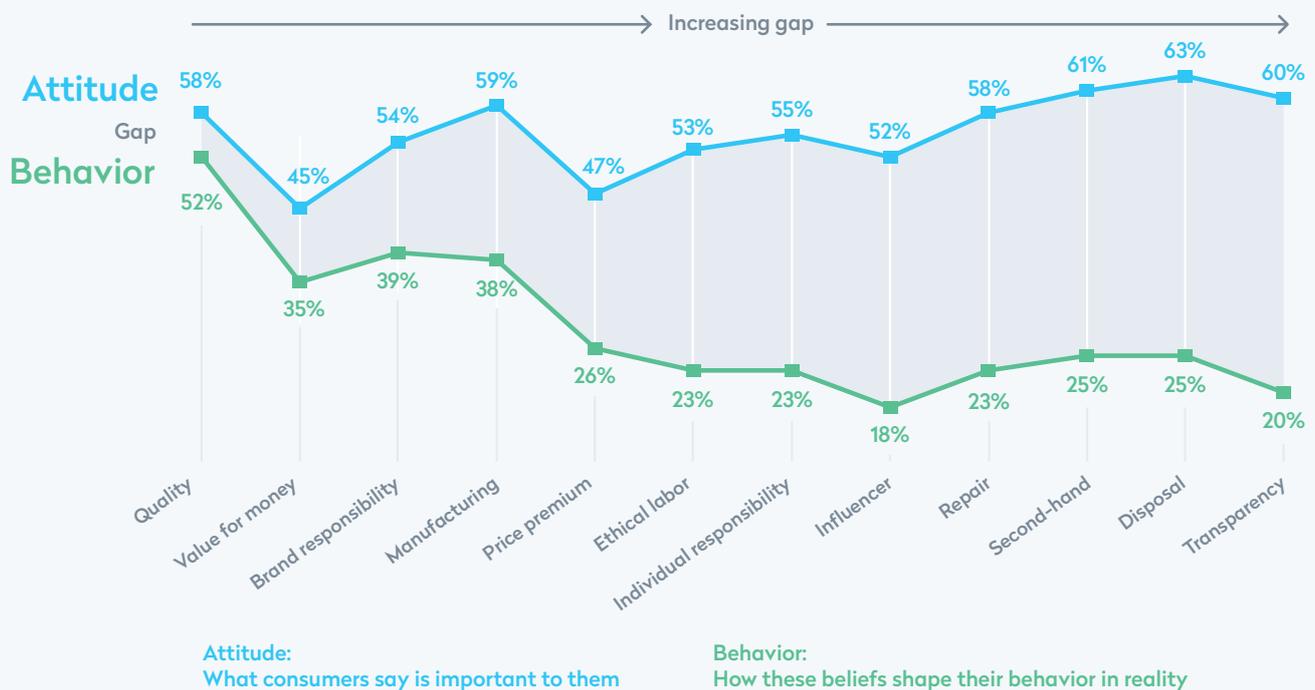
CLIMATE PROTECTION SHOULD BE PART AND PARCEL OF A PRODUCT: What consumers think of sustainability in e-commerce

Conscious consumption is more important to consumers than ever before – and they will give preference to brands and retailers that share these values. A 2021 study in Germany showed that **81 percent** of those surveyed **want** companies to place more value on **sustainability**. Critical consumers concede that progress has already occurred in this area over the last few years. However, **56 percent** of those surveyed think that the **sustainability efforts** of market players **are still too small**.⁶⁶

Several surveys in other European countries have corroborated this finding. They have also shown that this awareness has grown consistently over the last few years.⁶⁷ Currently, more than half of consumers are prepared to forgo some convenience, use products for longer, and fly less, for example, in the interest of more sustainable consumption.⁶⁸



However, claims can be very different from reality. This was shown clearly in a 2021 qualitative study⁶⁹ that looked at the **gulf between what consumers say and what they actually do**. On average, there was a significant difference of 10 to almost 40 percentage points between the study participants' attitudes about various aspects of sustainability – from production and ethical employment to extending the life cycle of products – and their actual purchasing decisions and consumer behavior.⁷⁰



But the responsibility for environmentally-friendly behavior shouldn't rest entirely with manufacturers and retailers – in another survey conducted in 2021, 91 percent of Swiss people stated that they are prepared to make compromises to help the environment and sustainability. However, only one in five online shoppers would pay extra for sustainable packaging.⁷¹

Nevertheless, comparing statements and measurable changes in purchasing behavior over longer periods suggests that changing people's opinions is at least a first step towards gradually changing behavior.⁷² This can be concluded, for example, from opinion surveys and the later increase in demand for organic products since the 1990s.⁷³

With this in mind, it is positive to note that consumers' willingness to pay for sustainable shipping of a product purchased online has seen a significant increase in just one year. In a previous Seven Senders study in 2021,⁷⁴ 54 percent of German consumers surveyed answered yes to the question of whether they would be willing to pay more for sustainable delivery up to a certain amount or based on the value of their purchase. By 2022, the proportion who answered yes had risen to 70 percent – putting in line with the average of 70.7 percent of all online shoppers from Germany, Austria, Switzerland, France, Italy, Spain, and the Netherlands surveyed in 2022.

Respondents who would pay more money for sustainable delivery



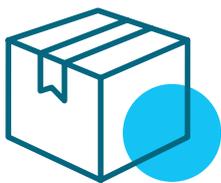
54.9%

Between ten cents and one euro



1.7%

More than one euro

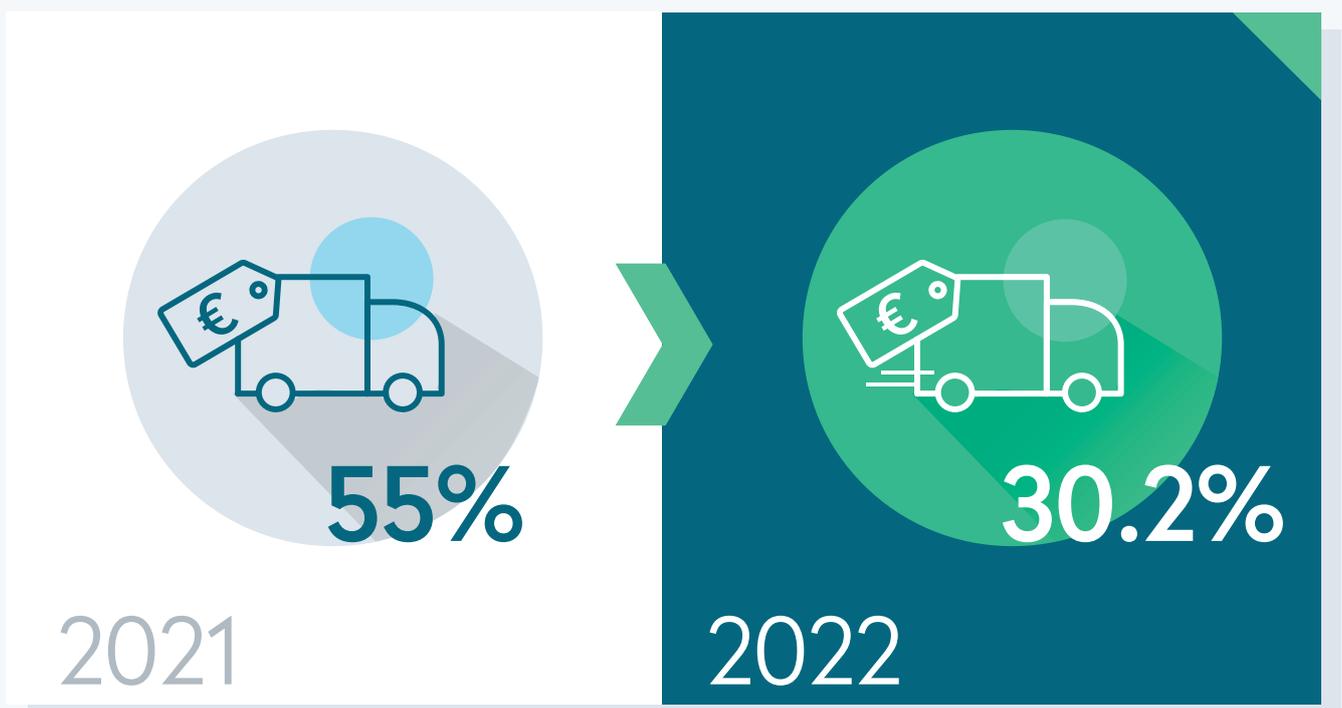


14.1%

Amount depending on the value of the package

It is worth noting that shipping costs as a criterion when choosing an online shop have become less important: in 2021, 55 percent of German consumers said that cheap shipping was a key criterion for them when choosing a retailer, whereas, in 2022, only 30.2 percent of online customers say that it is a priority. The picture is similar in Spain: the importance of shipping costs has fallen from 39 to 27.2 percent, whereas in France, it has increased slightly from 32 to 34.8 percent. On average, across seven countries, the issue has fallen in priority since 2021 by over 10 percent.

Respondents in Germany who stated that delivery costs were the most decisive criterion for choosing an online shop

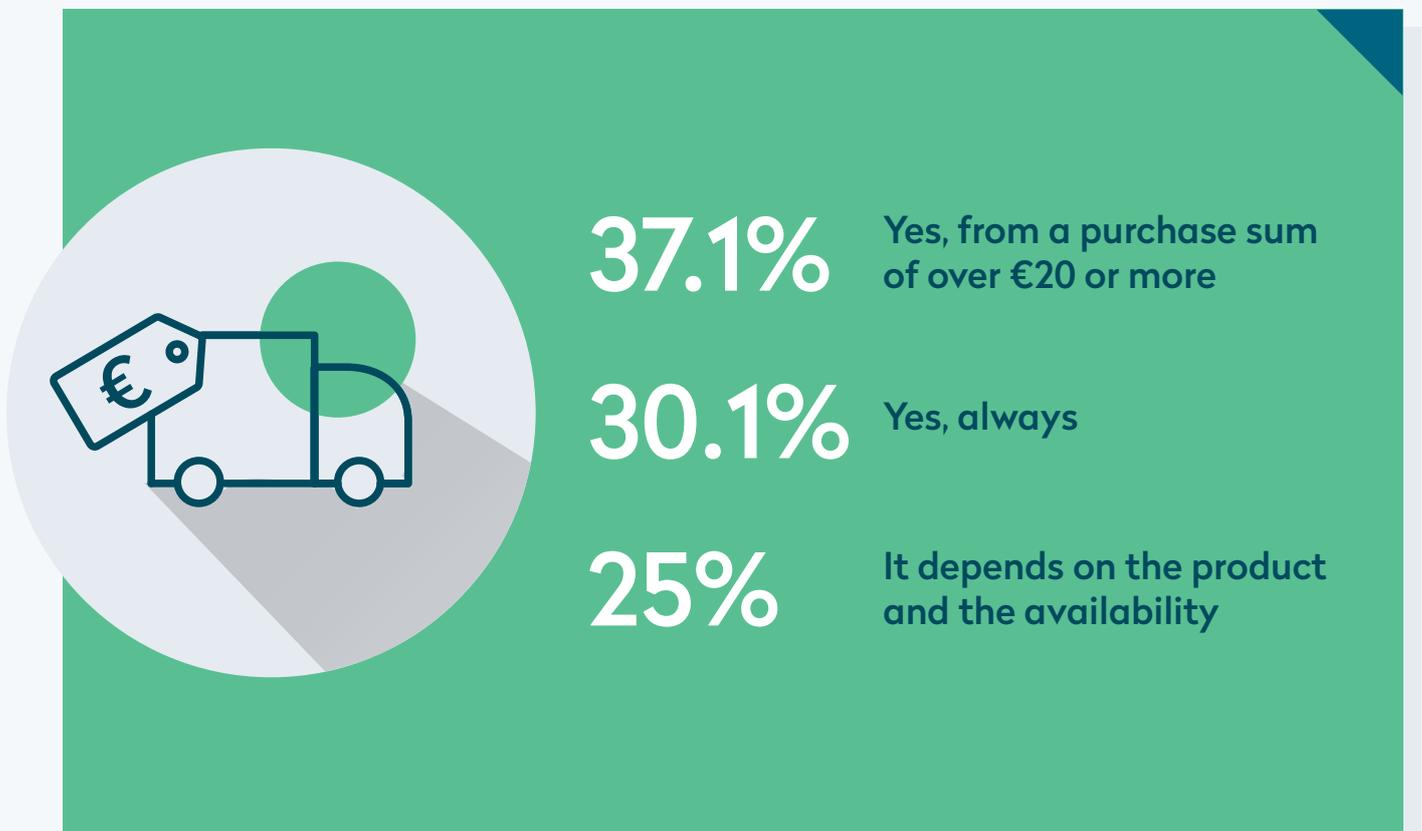


The change in the answer to the question of whether shipping for a product purchased online should always be free has been less marked. Comparing 2022 to 2021, there has only been a fall of just under 2 percent; in France, there was even an increase from 32 to 36.4 percent. Number one on this list is Spain, where expectations of free shipping were the highest of all countries, although there has been a slight fall compared to 2021, from 39 to 37.8 percent.

Compared to 2021, more online customers in 2022 see the provision of free shipping by retailers as a kind of reward for larger purchases: depending on the value of their shopping cart, many of them state that shipping should be free, particularly consumers from the Netherlands (47.2 percent), followed by consumers from Switzerland (43.6 percent). At the bottom of the list, only 17.8 percent of Italians surveyed see a connection between the value of their purchase and shipping costs.



Does delivery have to be free of charge?



Assuming that consumers in Europe have become increasingly aware of sustainability issues, it raises the question of what they think the impact of online shopping is when it comes to climate protection. Although many studies **have shown** that buying products from **brick-and-mortar retailers has a greater impact on the environment than e-commerce**, many consumers – when faced with critical media reports about the amount of packaging and increasing traffic in city centers – believe that the opposite is the case.⁷⁵ This is also reflected in our survey of online shoppers across seven European countries: more than half (54.1 percent) agree to some extent – but, as has been shown, erroneously – with the statement that online shopping is more harmful to the environment than in-store shopping.

E-commerce has the worst image in France, where 64.2 percent of those surveyed think online shopping is a crime against the environment. In Germany, 60 percent share this opinion. Among survey participants who shop more regularly online, the proportion is even higher, at 61.4 percent. Italians seem to be the least concerned, but 40 percent of them still think that stationary retail is a better option from an environmental perspective. Across all countries, this opinion does not depend on the level of education of those surveyed.

TAKE-AWAY 7

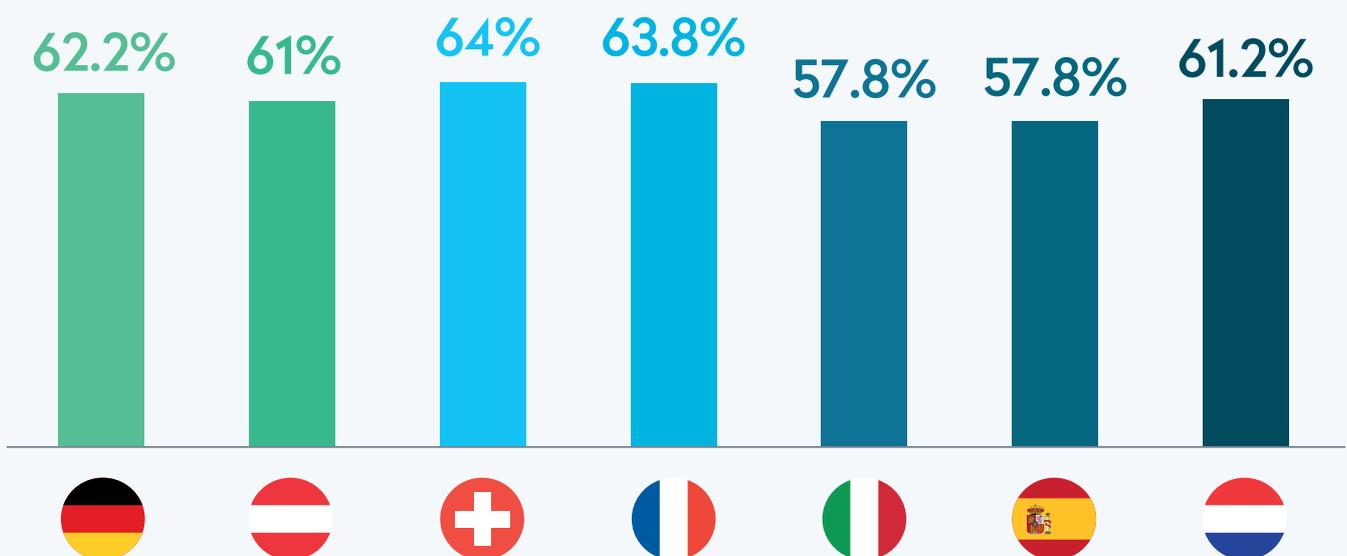
Awareness of sustainability issues and a willingness to make compromises for sustainable delivery has increased dramatically among European customers between 2021 and 2022 – 70 percent state that they are prepared to pay more for sustainable shipping (2021: 54 percent). Free shipping as a criterion when choosing an online retailer has also fallen. This is potentially connected to a “bad environmental conscience” – 64.2 percent of the French and 60 percent of Germans wrongly believe that online shops are less environmentally-friendly than brick-and-mortar retail.



People concerned about the climate and the environmental impacts of their actions tend to look for ways to improve. We asked consumers in seven European countries how they would reduce their environmental footprint when shopping online. The results were inconsistent – Germany (46.2 percent), Austria (46 percent), and Switzerland (40 percent) are most likely to avoid returns, whereas Italy (43 percent), Spain (36.6 percent), and the Netherlands (29 percent) think that using recyclable packaging is a more effective alternative. In France, this strategy only received 0.4 percent of responses, behind delivery to a parcel shop that would reduce last mile emissions. Only 7.6 percent (Italy) to 25.8 percent (Netherlands) of online shoppers in these countries think that the major lever of “returns avoidance” is an effective way of reducing the environmental impact of their consumption.

It is questionable whether this strategy in the German-speaking countries that agreed with it the most is applied. When asked what is most important when it comes to returns, all countries named free returns as the key criterion – at the top was Switzerland with 64 percent and France with 63.8 percent, followed by Germany (62.2 percent), Austria (61 percent), and the Netherlands (61.2 percent). The lowest when it came to expecting free returns were Spain and Italy (57.8 percent), although this is still high and was the most-selected response.

Respondents for whom free returns are particularly important



SUMMARY



As this study has shown, there are many ways of not only reducing the environmental footprint of e-commerce but also promoting greater sustainability efforts, driving the industry forward and encouraging consumers along the path towards more environmentally friendly consumption.

- **Sustainability is more than just a trend:** It's not only consumers who are interested in the environmental impact of online shopping – fast, minimal-click consumption is increasingly giving way to an awareness that a good conscience may have a price attached to it. And change is happening fast. Within just 12 months, the willingness to pay for sustainable shipping, as reflected in our consumer survey across seven European countries, rose from 54 to 70 percent.
- **Sustainability is online retail's middle name:** Contrary to the commonly held opinion of many consumers, the environmental impact of e-commerce is significantly better than its reputation – and demonstrably better than that of stationary retail.
- **Sustainability is an issue for now, not for the future:** The path to online retail that no longer produces emissions is still a long one. But we need to start now and take the first steps. After all, our planet has no time to lose – anyone who wants to reduce their environmental footprint quickly because they understand how urgent this needs to take appropriate measures, and ideally today. The method of choice for this is offsetting, the compensation of emissions that are currently still being produced.

- **Sustainability is a competitive advantage:** Anyone who doesn't set out some level of ambitious climate targets will soon be overtaken in the market, as the major marketplaces and purpose-driven online brands are leading the way. Anyone who wants to communicate their credible commitment to the climate and the environment mustn't be at the back of a movement that is rapidly picking up speed.
- **Sustainability is a growth engine:** Expansion into new markets opens up new potential while keeping costs manageable – and without increasing your environmental footprint. This is made possible by economies of scale in online retail with consolidated warehouses and distribution centers. And the different consumer habits across European countries even harbor some nice surprises when it comes to aspects that impact carbon emissions, such as return rates and shipping preferences.
- **Sustainability is in the detail:** It makes a big difference to the climate whether goods are shipped to a consumer's house or delivered to a parcel locker. When customers get to the checkout page, the difference only seems small for them. If communication is clear and sends the right signals, it is relatively easy to persuade consumers to make better decisions for the climate, helping to save tons of CO₂.

Few industries are growing as rapidly as online retail; it has been one of the only sectors of the economy to have benefited from the economic crises of the last few years and is more familiar with disruption than almost any other industry. Adapting rapidly to the needs of consumers and implementing changes quickly and efficiently is one of the industry's strengths. E-tailers can use the intensive debate around environmental and climate protection and more sustainable consumption to grow and become stronger.



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Want to learn more about sustainable shipping options?

We're happy to advise you. **Contact us!**

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