Collaborative Report on Sustainability and e-Commerce

2nd edition

June 2021

ECOMMERCE EUROPE

Table of contents

Preamble

Ecommerce Europe has decided to present a second and updated edition of its living collaborative report on sustainability and e-commerce, where members share a variety of information, studies, best practices, that can be a useful source of information for businesses and policymakers across the EU.

This collection of documents sheds light on the role e-commerce plays today, but also the role it can play tomorrow, as we collectively continue to work towards a more sustainable future. Our ambition is to provide research and examples that can inform debates on this issue, which are often still detached from the reality on the ground and influenced by perception rather than facts.

This collaborative report has been drafted in cooperation with Ecommerce Europe's members and will be updated regularly throughout the upcoming years, to give a continuously updated snapshot of the state of the sector.

Introduction

Sustainability in all its aspects is one of the most crucial issues of our time. The importance we give to our collective and individual impact on our planet, and on the people around us has never been greater and it has never been so needed. As part of a complex social, environmental, and economic ecosystem, businesses from all sectors have rethought the way they produce, the way they exchange, and how and what they sell to consumers. Businesses and consumers have become more and more aware of the role they play and their responsibility in fighting climate change and the rarefaction of resources.

Decisions taken by businesses and policymakers today will shape the future of retail and will influence the path toward the reduction of our continent's impact on the environment. There is today a clear opportunity to deliver on channel-neutral legislations and continue to embed digitalisation as a key component of sustainability policies, and sustainability as a key component of digital policy.

As European policymakers continue to define the implementation of the European Green Deal, businesses continue to explore new ways to limit their emissions. These processes require information, data and long-term perspectives in order to make the right choices.

The e-commerce sector is a bridge between the digitalisation of our society and the transition to a more sustainable economy. It is a sector in constant and rapid evolution, shaped by new technologies, new ambitions and ideas, new demands, making it a sector capable of spearheading innovative sustainable solutions.

The growth of e-commerce should be considered an opportunity to structurally shift to more sustainable retail and consumption practices, as well as an opportunity to use the digitalisation of our society to make the transition to a more sustainable economy. Retail businesses are constantly exploring which channels, geographies, services to invest in. **With a clear and global trend toward omnichannel commerce and experiences, businesses have the possibility to explore the best mix of solutions to deliver accessible, affordable and sustainable models.**

In a recent independent study[1] conducted by Oliver Wyman and the St Gallen University, the economic and environmental impact of e-commerce is thoroughly analysed, proposing new lines of approach to look at the impact of e-commerce on the environment. The study gathers and consolidates a large amount of public data, several new surveys as well as a new CO_2 impact model that offers new ways to look at the environmental impact of retail, taking into account a large variety of factors, such as transportation, packaging or energy consumed by buildings (e.g., stores and logistic centres). The results show a much more balanced image of the impact of e-commerce in terms of CO_2 equivalent (CO_2e) emissions, supporting the idea that the most sustainable practices and choices require the availability of a mix of options and information[2].

Ecommerce Europe believes that more researches such as this one, demystifying certain preconceived ideas on e-commerce, are vital to guide retailers as they embrace the transition towards a carbon-neutral industry and to develop a sound and fact-based legislative framework to accompany our transition to a sustainable economy.

---

1 Oliver Wyman, '*Is e-commerce good for Europe?, Economic and environmental impact study', 2021*, available online here.

2 Those findings are supported by other recent studies, The German Environment Agency (Umweltbundesamt - UBA) published a study in December 2020 with the preliminary conclusion that "in many cases it can be assumed that shopping in online retail is ecologically advantageous (mostly in terms of greenhouse gas emissions) compared to shopping in stationary retail." **According to the study, this is due to up to three quarters of emissions occurring during the production while the impact of packaging and transports only make up for 1-10% of emissions.** Thus, online shopping can be more sustainable thanks to a better and more efficient use of vehicles than driving to a stationary shop by car for example. Source: Umweltbundesamt (2020): Die Ökologisierung des Onlinehandel. Neue Herausforderungen für die umweltpolitische Förderung eines nachhaltigen Konsums. English Summary, pp. 12-14.

The role of e-commerce in promoting circularity and prolonging the life of products

The growth of e-commerce represents a unique opportunity to rethink how to give a second life to secondary materials and goods, extending the reach of second-use markets, enabling the development of reuse, repair, upcycling, or DIY markets. The e-commerce sector has a key role to play in connecting businesses and consumers to find an outlet for second-hand products or raw and secondary materials. It offers the opportunity to ensure access to a large number and variety of spare parts, but also contributes to the growth of intermediary businesses proposing repaired and refurbished products, which are in fast-growing demand in the tech and parts sectors.

However, there are still certain challenges related to the growth of sustainable trade options like refurbishment. As no legal definition of "refurbished product" exists, these products are considered second-hand products under current EU Consumer Law, with corresponding limitations to consumer rights. A variety of commercial definitions and limited guarantees have appeared over time, leading to confusion and lack of trust from many consumers. **To avoid further fragmentation and foster trust, the EU should take the lead in defining a European harmonised legal framework, including definitions, quality standards and related contractual rights on refurbished products. This would further open a market already expanding due to high consumer demand.**

Because of the opportunities that the second-hand market segment represents, it is crucial to build trust in these emerging sustainable trade options, and in general create a system of incentives that further promotes other aspects such as donations.

From early peer-to-peer platforms to the booming online second-hand market encouraged by new platforms or applications, the e-commerce sector continues to drive more circularity by offering a second life to products. Established e-commerce players are increasingly investing in this market in order to offer new options to consumers and extend the life of products. For example, Zalando estimates that it extended the life of 340.000 fashion products through the launch of its "Pre-owned" category on its platform in several countries. This system allows consumers to trade-in or buy quality-checked pre-owned items. In reward for trading items in, consumers can choose between a Zalando gift card or a donation to the Red Cross or WeForest. If an item is not eligible anymore, consumers can decide to have it returned or donated. As of April 2021, Pre-owned is available in 13 countries. Similarly, companies like IKEA Retail, part of the Ingka Group, continue to explore new ways to prolong the like of products, for example through furniture leasing, sell-back schemes and helping consumers repair, reuse and recycle old furniture or give it a second life through reselling.

Another way to look at circularity is the creation of a market for unused raw or secondary industrial materials. At production level, there is increased attention given to the re-use of fabrics, the recycling of plastic material and so on. E-commerce represents an opportunity to further open these markets, by giving access to unused industrial material to consumers. With this in mind, eBay and VAUDE created in March 2020 an upcycling store[3], where the sustainable outdoor clothing brand can now sell residual materials via the online marketplace. The high-quality, robust and environmentally friendly PVC-free materials, which mainly come from the production of bicycle bags, are made available to everyone who likes to sew and wants to be creative. This means that leftovers and cuttings from production can be used sensibly instead of being carelessly disposed of.

Finally, ensuring that products can have a second life can go through donations. **Ecommerce Europe believes that the EU should consider how to incentivise more sustainable practices like the reuse of products through VAT reductions or by exempting donations from VAT.** A member of the German e-commerce association bevh, innatura GmbH, offers a platform[4] on which such products can be donated to social institutions or non-for-profit organisations instead. However, their long-term experience shows that, while efforts for the accountancy, storage and transport are already considerable, the high tax expenditure represents the biggest obstacle to donations: two out of three companies interested in donating currently decide against the donation because of the uncertainties linked to VAT. Germany decided to temporarily waive VAT on donations to support companies donating overstocks accumulated because of the COVID-19 pandemic. However, there is a clear need for those incentives to be permanently and legally established.

Discussions on how to extend the life of products can also encompass the role of returns, and more precisely how retailers handle returns. Returns are not an issue limited to e-commerce. They occur across the value-chain and cover a wide variety of use-cases. **The discussion around returns must be broadened to include business-to-business sales, production surpluses, production failures, manufacturers and brick-and-mortar retail as well**. The specific role of return prevention in business-to-consumer scenarios will be discussed in the following chapter on consumer behaviour.

---

3 eBay, *'VAUDE and eBay start upcycling store'*, 03 March 2020 (in German), available online here.

4 bevh, *'Donations instead of disposal'*, July 2019 (in German), available online here.

It is too often assumed that returned products are likely to be destroyed, but surveys among retailers dismiss broadly this assumption. As part of its study "Shipping and returns management in e-commerce 2019. Trends and strategies of online retailers",[5] the EHI Retail Institute (EHI) surveyed 95 online retailers from Germany, Austria and Switzerland from November 2018 to January 2019 via an online survey on, among other things, the remarketing of returned items. The proportion of items that can be resold as A-goods is strongly related to the assortment offered. On average, the majority of retailers can directly resell 80% or more of returns as A-goods (except for food). The proportion of items that can be resold as A-goods is for instance highest in the fashion segment, with 82%, which is particularly return-intensive. There can be different reasons why returns do not qualify as A-goods anymore: in most cases (71%), the quality of the product suffered too much so that it cannot be refurbished anymore. High costs that make the refurbishment uneconomic only play a role for 20% of retailers. Another 20% do not sell them as A-goods to maintain the value of their products.

The results show that because of the costs alone (a return including shipping and handling costs the retailer around 10 euros, which can vary greatly depending on the product segment), online retailers resell returns directly as A-goods if possible or use other marketing opportunities as long as the condition of the product allows for it. The majority of goods that cannot be resold as A-goods gets in the majority of cases (54%) resold as B-goods. More than a third of online retailers does this via an outlet, more than a quarter donates articles, if possible, to charities and more than 20% offer them to their employees for sale. 25% said they would return such goods to the supplier.

According to another survey[6] conducted in Germany, the volume of disposed returns is actually very low, with a share in the per mille range (0.5%) - in relation to the average return rate of 12.1% determined by the research group for the overall market. The disposal is therefore the absolute exception and more than 50% of the respondents to the survey stated that their companies do not dispose of returns at all. Returns are only recycled or disposed of in rare cases when the condition of the goods or the requirements of the product, for example in terms of shelf life, no longer allow for further marketing.

---

5 EHI Retail Institute (EHI), '*Versand und Retourenmanagement im E-Commerce. Trends und Strategien der Onlinehändler*', 2019, available online here.

6 University of Bamberg, '*Background of the returns disposal study evaluated*', 09 October 2019 (in German), available online here.

Role and attitude of consumers: how to empower sustainable behaviour

Consumers are crucial for the transition towards a more sustainable e-commerce sector. In the last years, a shift in consumer behaviour and expectations has taken place, and it has become easier for consumers to make a sustainable choice when shopping. Consumers are generally becoming more aware of the impact of their product choice and how they subsequently use and dispose of these products. When buying online, consumers benefit from increased transparency about product information. The expectation is that, in the coming years, in addition to being cost-conscious, consumers will become more and more environmentally aware. Digital tools, notably those used by e-commerce players, offer new opportunities to empower consumers. **Our members and other industry actors are working to develop new ways to deliver information to grasp this opportunity, taking into account the evolving technological landscape and an understanding of consumer preferences. Ecommerce Europe encourages the European Commission to consider the importance of a flexible approach to sustainability information, to enable industry-led innovation of this kind.**

Any information meant to empower consumers needs to be accessible, understandable, but also comprehensive. This means that initiatives aiming to inform consumers need to consider the risk of over-burdening and obligatory information streams that, in effect, do not inform at all. It is also important to consider how consumers access this information (e.g., mobile commerce and voice commerce) and take full advantage of the tools that are available to them. Digital tools - notably developed through e-commerce, but which can be applied to both physical and digital environments - allow for new solutions to access information, for example through sustainability filters and the use of data to communicate information throughout the product's lifecycle. Digital tools can facilitate consumers to have the right information, at the right time, in a layered approach. It can offer the possibility for consumers to understand easily and quickly what they are reading, granting the transparency and reliability of the information (e.g., through the use of a baseline and comparative tools).

Specifically for the fashion sector, a new study conducted by Zalando explores how the industry and consumers can close the sustainability attitude-behaviour gap[7]. According to the report, more than 90% of Gen Z consumers (aged 18 to 24) say companies have a responsibility to protect the environment and make a positive social impact.

However, Zalando's findings support the fact that there is a gap between attitudes and behaviour, and that many consumers struggle to turn their sustainability priorities into purchasing decisions. A better understanding of consumers' attitudes and behaviour can help online merchants tailor their solutions and communication. For example, Zalando currently enables customers to make more sustainable choices via sustainability filters and a sustainability flag system. Products are highlighted when they fulfill one or more sustainability criteria, consisting of the use of more sustainable materials or processes, based on third-party certifications, and data from the Sustainable Apparel Coalition's Higg Materials Sustainability Index (MSI) and Textile Exchange All this information and sustainability claims are collected from the suppliers and 3rd party certifications are verified by Zalando on a weekly basis. One of the results is that almost 50% of Zalando's consumers bought at least one more sustainable product at the end of 2020 compared to 18% at the beginning of 2020.

In other sectors, companies such as IKEA Retail ensure that results from a search for its bestsellers will also display more sustainable options to help their consumers embrace sustainable living. Artificial Intelligence-based product recommendations will help suggest products more fit for purpose, reducing returns and increasing use of time as well.

Ensuring that information is comparable, understandable and trustworthy is another objective shared by businesses and policymakers. Ecommerce Europe values the possibility for market actors to prove and communicate environmental claims through the method of their choice. However, due to a proliferation of labelling and information requirements, it is crucial to streamline these obligations to ensure a coherent approach and avoid counter-productive situations where information available becomes too confusing. It is also important to explore the possibility of developing harmonised, yet flexible, European criteria for information to consumers on environmental performance, as well as other types of information linked to the sustainable aspects of a product. There are already examples of companies leveraging existing certification as well as digital tools to provide the most accurate and complete information possible to consumers. Through the Climate Pledge Friendly, Amazon partnered with trusted third-party certifications and created its own certification, Compact by Design, to highlight products that meet certain sustainability standards. Products must be certified by one of the sustainability certifications to be qualified, allowing

---

7 Kate Heiny and David Schneider with contribution from Phillip Dornacher, Beth Greenaway, Olivia McNair, Susann Remke, Kirsten Siegler, '*It Takes Two - How the Industry and Consumers Can Close the Sustainability Attitude-Behavior Gap in Fashion*', 2021, available online here.

Amazon to display the certification(s) more efficiently[8].

Information to consumers and innovation in the way businesses market and communicate about products can help reduce returns. Returns have always been an integral part of mail-order and now e-commerce and they are intrinsically linked to shopping habits. They also vary from one sector to another. A representative survey of 2503 people - conducted in Germany by the opinion research institute Civey on behalf of bevh in July 2020 - shows that consumers appreciate the right granted to them by the legislator to return goods within two weeks without justification. A total of 78.7% of those surveyed believe that such a right to return is a good thing. Only about one in five rather or clearly rejects it (21.3%). As this right has to be respected, retailers have to explore different solutions and tools to try and influence or reduce the likelihood of returns. For example, based on the purchase and returns history of consumers, Zalando already provides them with advice on 50% of all items ordered. Thanks to the body scanning app and virtual fitting room of Fision, a software company that Zalando acquired in 2020, consumers will be able to see how an item would fit as well.

This is one solution out of many currently explored by retailers to reduce returns. In 2019, the University of Bamberg in Germany carried out an independent study[9] on preventive returns management, exploring some options that could be implemented to reduce return rates. The study shows that online retailers are already making great efforts to minimize the number of returns. Making full use of all the classic technical means at their disposal, such as precise product descriptions, illustrations, or customer reviews, retailers already reduce the likelihood that a consumer will return an item because he or she is not satisfied with it. The different options considered in the study raise various challenges, showing that the question of returns is a lot more complex than it first appears. A study conducted in Germany in 2019[10] explored the possibility of combining existing return measures with a "CO_2 account" (during a certain period the account gets debited or credited based on the sustainability of the return behaviour, and after reaching either a certain reduction rate or a specific target, discounts or a bonus could be offered to the customer). But the study also shows that a "CO_2 account" would have positive results among women, but that size recommendation is a more efficient way to reduce returns among men. **The effectiveness of the measures therefore also strongly depends on the respective target group. Companies need to collect data in order to effectively implement measures to reduce returns and repeatedly test them. This is a clear illustration of the fact that there is no one-size-fits-all solution that works equally well for all online retailers, but rather a whole range of solutions.**

The role of consumers in reducing returns is key. The unprecedented period of confinement has provided an interesting case-study on returns and how consumer habits can impact return rates. The online retailers of the Otto Group in Germany have observed[11] structural changes since the beginning of the COVID-19 outbreak in the purchasing behaviour of their customers and thus a significantly lower rate of returns. Customers of the Otto Group have been buying more consciously and in line with their needs, while spontaneous and, above all, expensive purchases are being postponed. Consumers are buying in particular articles from the household, electronics, furniture, DIY and gardening product categories, as well as products such as lingerie, home textiles and basic fashion with lower return rates. **This shift in product categories leads to a significant reduction of the return rate, although the increase in sales volumes means that the overall volume of returns is rising.**

This was also confirmed in an independent study by the University of Bamberg[12] in Germany who found that the returns behaviour during 2020 significantly changed. The results are based on a survey of 103 companies representing 16.6% of the German e-commerce turnover. While the number of shipments of the sellers surveyed increased by 17.4% between March and August 2020 compared to the previous year, fashion sellers and furniture recorded significantly lower return rates. Overall, return rates decreased from 17.8% to 15.9%. The respondents mainly identified a change in the ordering behaviour of customers (more orders relating to actual needs) and the attraction of new customer groups as reasons for this decrease in return rates. In addition, retailers reported that during the Covid-19 pandemic, customers return their goods later and test them more intensively – in some cases even too extensively so that the returns cannot be resold afterward - before they decide to keep them or not. Future surveys by the University of Bamberg will examine whether these effects are permanent or just temporary.

The opportunity of digitalisation of product information and the role of new technologies such as AI should be

---

8 Amazon, '*Climate Pledge Friendly helps you discover and shop for more sustainable products*', available online here.

9 University of Bamberg, 'Preventive returns management and return fees', 11 December 2019 (in German), available online here.

10 Eva Aumüller, '*Analyse des Retourenverhaltens zur Ableitung von Konzepten für die Retourenvermeidung im Onlinehandel*', University of Applied Sciences of Wedel, 2019, available online here.

11 Otto Group, '*Corona is reducing return rates*', 31 July 2020 (in German), available online here.

12 Source: University of Bamberg (2020): '*Retournierverhalten waehrend der Covid-19-Pandemie untersucht*', 29 December 2020, available online here.

explored and jointly defined by decision-makers and the industry. To go further, it is important to consider how to link the digitalisation of product information with how data can be leveraged to trigger more sustainable behaviour. E-commerce generates knowledge, or data, on where a product is located, when it has been purchased and how to contact consumers. In the future, retailers will become able to provide consumers with information during the lifecycle of the product, from maintenance tips to advice on personalisation, reuse, and waste management. Consumers will in turn increase the use of their purchases and reduce waste. However, complex privacy frameworks make it harder for consumers to allow the processing of their personal data that would ultimately be beneficial to the whole planet.

The way forward for efficient and sustainable e-commerce packaging

The issue of packaging has been at the core of the ongoing discussion about sustainability in e-commerce. A product's package is often the first physical contact online consumers have with a product, a brand. It is also an issue influenced by concrete challenges, such as the protection of goods during delivery, which of course also represents a concern in terms of sustainability and the need to protect goods from being returned and unrepairable. Given the more complex and interconnected logistics system of e-commerce, compared to traditional brick-and-mortar retail, e-commerce packaging needs to be functional, protect products, while allowing brands to implement their marketing strategies.

Ecommerce Europe welcomes the European Commission's ongoing research into the impact of the upcoming revision of European packaging rules[13] and shares the ambition of policymakers to develop new ways to make packaging more sustainable and efficient. It is fully in merchants' interest to avoid unnecessary packaging, also from a financial perspective.

Measures aimed at the reduction of packaging in retail have to take into consideration the multiple trade-offs that take place when defining the most sustainable way to package a product, but also the actual control that companies have over packaging throughout the supply chain (e.g., certain e-commerce business models do not allow stakeholders to control either primary or secondary packaging). Improving the sustainability of packaging is a responsibility of the whole supply chain, and packaging should be assessed through the net environmental impact over the whole life cycle of the product. The right balance has to be found between reducing packaging or new packaging solutions and possible unintended on the environment (e.g., risks of returns of damaged products if there is a lack of protection, the possible challenge with reusable packaging and reversed logistics, and so on).

Packaging is also now a key element of what makes a retailer sustainable in the eyes of a consumer receiving a new product. While the impact of e-commerce packaging, in comparison to the total amount of packaging placed on the European market every year, remains limited, the sector has a responsibility to contribute to more sustainable practices and address consumers' concerns and expectations. In the Netherlands, for example, it is estimated that e-commerce packaging represents three percent of the total packaging weight on the market[14]. The sector continues to commit to further reduce this impact. This means investing in and developing new solutions and technologies to further improve the sector's contribution to

a more sustainable future.

Retailers and their service providers have been exploring many different options to reduce their impact and address evolving consumer demand. These options can range from looking at packaging itself (from its design, volume, composition) but also at the larger supply chain (optimisation of the original product packaging for transport, standardization, …).

It is therefore crucial for legislative solutions aimed at reducing packaging to be flexible in their means to achieve this objective. Market-based solutions, and a policy-mix combining support for SMEs, access and sharing of data on packaging as well as incentives for circular business models, would provide the right message for the industry.

We see new solutions emerging, adapted to the companies' business model. For example, Zalando has taken an initiative to reduce parcel volume with its "one parcel policy". Zalando Fulfilling Solutions (ZFS), the logistics arm of Zalando, enables "one parcel" fulfillment by streamlining multi-brand orders into a single order, a single delivery and if needed, a single return parcel. In addition, to ensure a maximum possible frictionless experience for customers, Zalando bundles orders that are placed within one to several hours per day.

If we take the example of promoting reusable packaging, it is important to promote the setting up or the upscaling of pilot projects in various EU Member States and promoting the creation of taskforces gathering research institutes, service providers and retailers. **This goes hand-in-hand with exploring areas where legislation should be harmonised at EU level, to ensure the uptake of new solutions or packaging systems cross-border.**

In Germany, Tchibo, Otto and Avocadostore have been testing reusable delivery bags since August 2020, as part of the three-year praxPACK project[15], coordinated by Ökopol, the Institute for Environmental Strategies and funded by the Federal Ministry of Education and Research. The project aims to increase the dissemination of packaging fit for the circular economy. Tchibo, Otto and Avocadostore are working together in a so-called "cooperation laboratory" with the aim to generate comprehensive findings by the beginning of 2022 on **how returnable packaging systems must be designed so that they are practical and economically viable, and which industry-specific and political framework conditions can support them.** Their experiences and results will be transferred into an online toolbox and made available to the e-commerce industry. In this way, sustainable solutions can quickly establish themselves in the sector.

---

13 Upcoming EU legislative proposal on "Reducing packaging waste" expected later this year.

14 Thuiswinkel.org, '*Goed verpakt*', April 2019, available online here (in Dutch).

15 Tchibo, '*Test start with reusable mailing bags at Tchibo, Otto and Avocadostore*', August 2020, available online here.

In this first phase of the praxPack project, the system developed by the company RePack is tested as of August 2020. The RePack reusable delivery bag is made of recycled plastic, can be folded by the customer to letter size and returned free of charge by post and can be used 20 times and more. Tchibo estimates that it could replace about 7.500 disposable delivery bags with RePack reusable delivery bags. The companies will especially look into the questions of customer acceptance, and the integration of this solution in the reduction of waste produced by switching from disposable to reusable systems. First results of the praxPack project were published at the end of 2020. The customer surveys of the participating web shops show a very positive feedback: the majority of customers appreciated the reusable RePack bag and liked the fact that alternative packaging was being tested. Moreover, the return rates for the RePack bags were comparatively very high and better than expected. Whereas on average 72% of the reusable packaging bags get returned, Tchibo for example had a return rate of more than 80% (either empty or including returned products). In addition, at OTTO, where customers received the reusable packaging for free during the test, a majority of customers said that they would be ready to pay a surcharge or a deposit in the future (if customers would then ultimately do so, would remain of course to be seen).

However, there are still a couple of challenges, which mainly revolve around the issue of scalability: whereas the system is functioning well at a smaller scale, there are considerable additional costs in logistics to be taken into account before introducing the system at company or even at a sector-wide level. Moreover, it is not very easy to integrate RePack into the IT systems of the web shops ensuring that the content of the shopping cart, be it one or several products, also fits into a RePack bag.

Regarding its own environmental footprint, RePack itself is also working on becoming even more sustainable by replacing the adhesive tape that is currently used for sealing the bags with a reusable solution by the beginning of 2022 if possible. In addition, RePack is in the long run working on relocating its return logistics center which is still in Tallinn. As this is very costly in terms of price and sustainability, this is also one of the factors that is still impeding a sector-wide use. Therefore, RePack is starting a pilot project with La Poste and 10 renowned webshops in France in May 2021, where the returned bags will be kept and treated in France[16].

Improving packaging requires an integrated approach, but also data and investment in new technologies. Ecommerce Europe therefore welcomes the European Commission's intention to explore how digitalisation, the development of a sound framework for machine learning and "green" data spaces can play a role in developing more sustainable practices.

---

16 Source: https://www.praxpack.de/materialien

Leveraging omnichannel commerce and sustainable e-logistics solutions

How products get to consumers' doors is a fundamental aspect of e-commerce. It is also a topic at the centre of the conversation on sustainability and e-commerce, and part of larger conversations about the future of mobility, urban planning, but also accessibility. E-commerce logistics is therefore shaped by various developments, from the evolution of consumer expectations, to the growth of omnichannel commerce or the development of key transport infrastructure.

e-logistics also represents a very visible part of e-commerce which centres many discussions around topics such as transport emissions and urban congestions. But the reality of the impact of e-logistics, notably in comparison to shopping in physical shops, relies on a large set of variables that should be addressed in a broader discussion on mobility, accessibility and convenience.

e-logistics is different from traditional distribution operations, and more complex. The question of sustainability and e-logistics cannot be answered by addressing one angle of a perceived issue, or by addressing perceived causalities that would link e-commerce with an increase of CO_2 emissions and congestion. This also means any efforts to make e-logistics more sustainable need to be guided by a holistic approach. This is valid not only for business strategies but also for policymaking.

In its economic and environmental study on the impact of e-commerce, Oliver Wyman[17] looked at the impact of purchase through different channels, comparing - among other variables - consumers going to physical stores and e-logistics (including transport from the seller and last-mile delivery). The report also takes into consideration metrics such as mobility for shopping trips (share of car, public transportation and walking), the number of products purchased per online order and shopping trips or the return rates, both offline and online, including consumers who use their cars to return a parcel to a local post office. The results mitigate the impact of e-commerce delivery compared to other types of shopping.

From the role of pick-up points and omnichannel solutions relying on the development of local, inner-city shops, to the use of new means of transportation, there are a number of solutions being explored to continue the transition to more sustainable delivery systems and practices.

The more data is made available and understandable, the easier it is for businesses and consumers to make the most sustainable choice. With that in mind, the Dutch Ministry of Infrastructure and Water Management, Topsector Logistiek and Connekt, in collaboration with TNO and on behalf of Thuiswinkel.org have collaborated in order to develop the Bewust Bezorgd[18] project, consisting of a generic CO_2 calculation tool for the e-commerce sector that calculates how much CO_2 emissions are caused by sending a package. This tool can be used either by consumers, to choose the most sustainable delivery option, or by retailers, to have information on the sustainability of the courier they use. This was done in collaboration with large online stores such as OTTO, Wehkamp, Coolblue and bol.com and postal operators and carriers like PostNL, DHL and Dynalogic. The objective is to develop one generic measurement method ensuring that every webshop can calculate the CO_2 impact in the same way. Ecommerce Europe's national association member in the Netherlands, Thuiswinkel.org, is developing and keeping Bewust Bezorgd up to date together with Connekt and Topsector Logistiek.

In a study commissioned by Thuiswinkel.org and the Dutch Ministry of Infrastructure and Water Management, behavioural research bureau D&B has researched the possibilities of influencing decisions that online consumers make, with respect to the time and place of the delivery. The most effective way to stimulate consumers to make sustainable delivery choices is by offering information about the CO_2 impact of different delivery options and pre-selecting the most sustainable choice, for example through an easily understandable indicator at check-out (see image).

Information about the CO_2 impact of the delivery options same-day, next day, evening and collection point was provided through: (1) the grams of CO_2 emissions per option; (2) percentages to demonstrate which is the most sustainable option; and (3) a green leaf at the most sustainable option. In addition, an intervention was included where the most sustainable option was pre-selected and a green leaf was included.

In the three interventions focused on providing information about the CO_2 impact, double the consumers opted for delivery at collection point, which was the most sustainable option in the study (16%). When an informative intervention was combined with a default intervention (adding a green leaf), the observed behavioural effect was even stronger: the most sustainable delivery method was chosen almost four times more often than in the case of no intervention (28,7%). See picture on the next page.

---

17 Oliver Wyman, '*Is e-commerce good for Europe?, Economic and environmental impact study*', 2021, available online here.

18 https://bewustbezorgd.org/
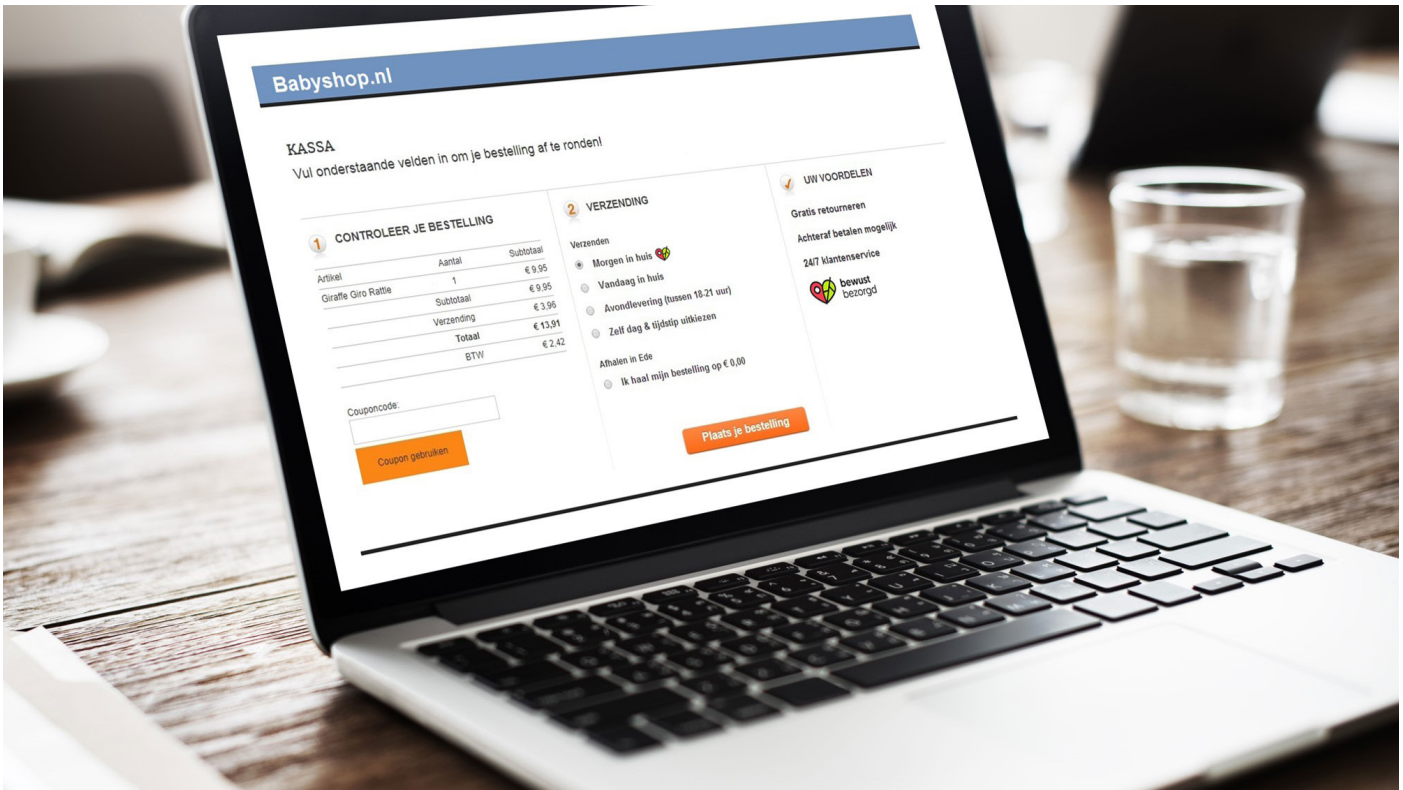
Sustainable e-logistics optimises the use of various infrastructures (public or private), means of transportation, or sales channels. IKEA Retail is taking full advantage of omnichannel solutions and using their stores as fulfilment centres, while developing in parallel the implantation of their stores in cities to facilitate access for consumers. As part of its commitments to the EV100 (a global initiative bringing together forward-looking companies committed to accelerating the transition to electric vehicles (EVs)), the Group has also set the following objectives:

- By 2025, IKEA Retail aims for 100% home deliveries by electric vehicles or other zero-emission solutions including bike deliveries for small items and multimodal solutions such as rail and river-based transports. The Group wants to reach this goal by 2020 in Amsterdam, Paris, Los Angeles and New York and has already met it in Shanghai.

- By 2025, all owned/leased/shared vehicles in IKEA Retail's fleet will be electric vehicles or other zero-emission options.

- By 2030, IKEA Retail aims to reduce relative emissions by 50% from co-worker and consumer travel to its physical touchpoints.

IKEA Retail's strategy also shows the importance of data and new technologies for the future of e-logistics.

Access to data and new technologies allows IKEA Retail to rethink how and from where products can be delivered to consumers. IKEA Retail leverages its stores across Europe as part of the IKEA Fulfilment network to avoid the construction of the Customer Distribution Centres. The company is also now exploring how artificial intelligence can be used to forecast demand to improve stock structure and availability, reducing costs and the environmental impact.

Companies are also exploring the role of digital lockers in greening logistics and providing convenient delivery solutions. Sameday courier, an eMAG Group company, created in 2018 Easybox, a secured digital locker system that allows flexible pick-up times for consumers. By the end of 2020, it reached up to 1000 units covering 19 Romanian cities. Moreover, starting 2020, Easybox can be efficiently utilized as a product return point. Apart from characteristics vouching for customer convenience, Easybox was designed as a sustainable alternative for parcel deliveries. Studies have shown that parcel pick-up from the Easybox locker system has the potential of reducing CO_2 emissions by 20.5% when compared with traditional home deliveries. In other words, if during a parcel delivery a carrier company produces the estimate of 300g CO_2 emission, when utilizing Easybox it will produce merely 14g[19]. This way, eMAG managed to reduce its direct CO_2 emissions (Scope 1) by 15.8% in 2020.

19 Transportation Research Procedia 46 (2020): From home delivery to parcel lockers: a case study in Amsterdam.

e-Logistics is also a sector where we can see the value of going beyond perceptions and investing in studying the impact of e-commerce. bevh commissioned a study in 2017 to contribute to the debate on the impact of e-commerce on traffic in German cities, which shows that figures for parcel delivery are lower than for the delivery to stationary shops and private transport, highlighting the fact that a solution to the traffic problems must include all traffic flows in order to make a sustainable contribution to traffic reduction[20]. This was also confirmed by a follow-up calculation based on data from 2019. Despite the steady growth rate of e-commerce, the number of delivery trips for all commercial and private deliveries only increased from 2.1 to 2.2 departures per square kilometre in Hamburg for example[21].

The Oliver Wyman report[22] has also confirmed the assumption that e-commerce deliveries replace consumer car trips to stores, saving between 4 and 9 times the traffic they generate. This confirms that, by replacing some consumer car trips, e-commerce deliveries reduce overall traffic. In the Paris area, about 40 percent of shopping trips are made by car, looking only at the most representative e-commerce categories: fashion, books and consumer electronics. One delivery van saves 50 car trips, which implies that 1 vkm[23] of e-commerce deliveries removes 4 vkm of car trips to physical stores. In the London area, car use for shopping trips is higher, at 54 percent, because distances to stores are longer. But last-mile delivery distances are lower. As a result, 1 vkm of e-commerce deliveries removes 9 vkm of car trips to physical stores. Berlin is in the middle: 1 vkm of e-commerce deliveries removes 6 vkm of car trips to physical stores. Although the visibility of branded delivery vans gives the impression that e-commerce adds significantly to traffic, it is in fact a low contributor, and it has benefits when compared to shopping by personal car. As such, facilitating deliveries in urban areas is one way to reduce passenger traffic.

---
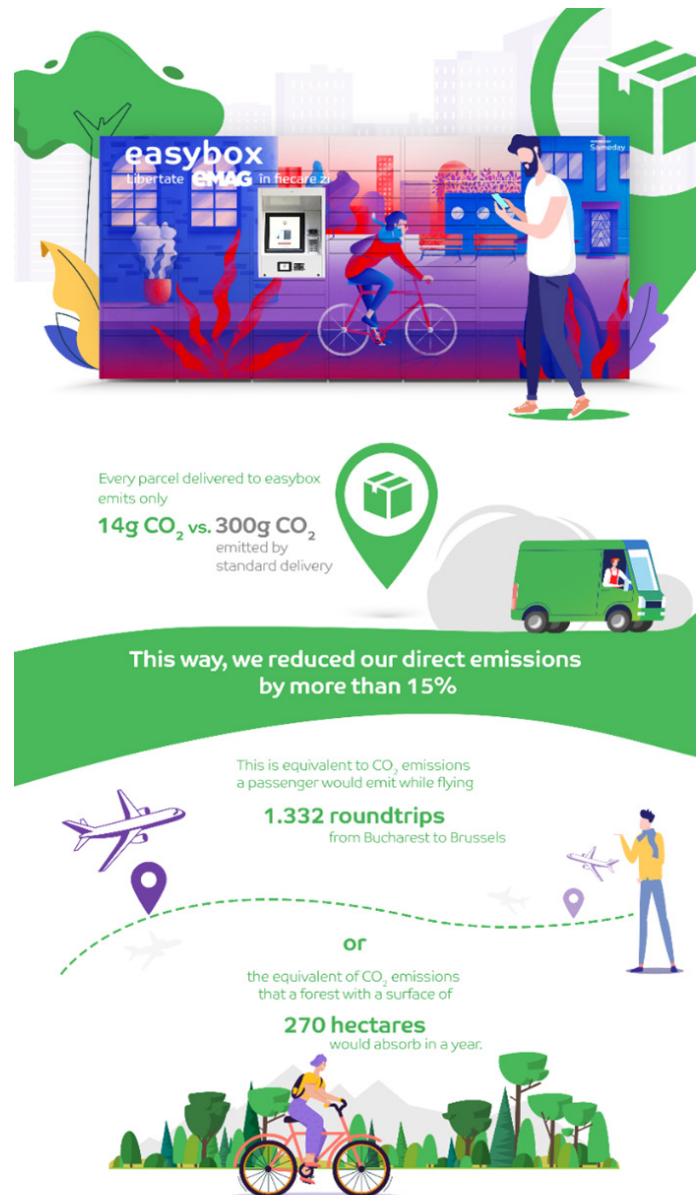
20 Bevh, '*Summary of the results of the short study on the traffic impact of e-commerce in Metropolitan areas*', 2019, available online here.

21 MRU (2020): E-Commerce in der Stadt – von Klempnern, Pendlern und Paketen. Eine Berechnung der verkehrlichen Belastungen.

22 Oliver Wyman, '*Is e-commerce good for Europe?, Economic and environmental impact study*', 2021, available online here.

23 Vehicle-kilometre (vKm) as a measure of traffic flow, determined by multiplying the number of vehicles on a given road or traffic network by the average length of their trips measured in kilometres.

Conclusion

Sustainability and digitalisation have been put at the heart of the European Union's policy agenda, with a renewed, holistic approach through the European Green Deal. With initiatives spanning from sustainable transport to product policy, sharing of data and information, European policymakers have a unique opportunity to keep the continent at the forefront of the transition to a sustainable economy and a digitalised and inclusive society, as these evolutions cannot and should not be treated as separate challenges.

An important element of this transition will be to break the preconception of "online versus offline" when developing policies. Businesses have gone beyond this divide and rely on the best of both worlds to provide the most sustainable and accessible solutions to consumers.

Ecommerce Europe will continue sharing and advocating for ambitious and innovative policies to further unlock the European economy's potential and keep Europe at the forefront of the twin digital and sustainable transition.

ECOMMERCE EUROPE