

2022

 **Ante**

Returns Revitalised

A path to 100% carbon neutral returns.



Executive Summary

Returns need a sustainable makeover. Currently the fashion sector globally emits more CO2 every year than aviation and maritime shipping combined.¹

Recent figures reveal that it is not uncommon for 40% of online purchases to be returned to e-commerce stores.² With the majority of returned items heading straight for landfill, the negative cost to the planet is seriously adding up.

This micro report highlights the direction that returns are headed, and how bad things could get if there is not a radical intervention.

About us

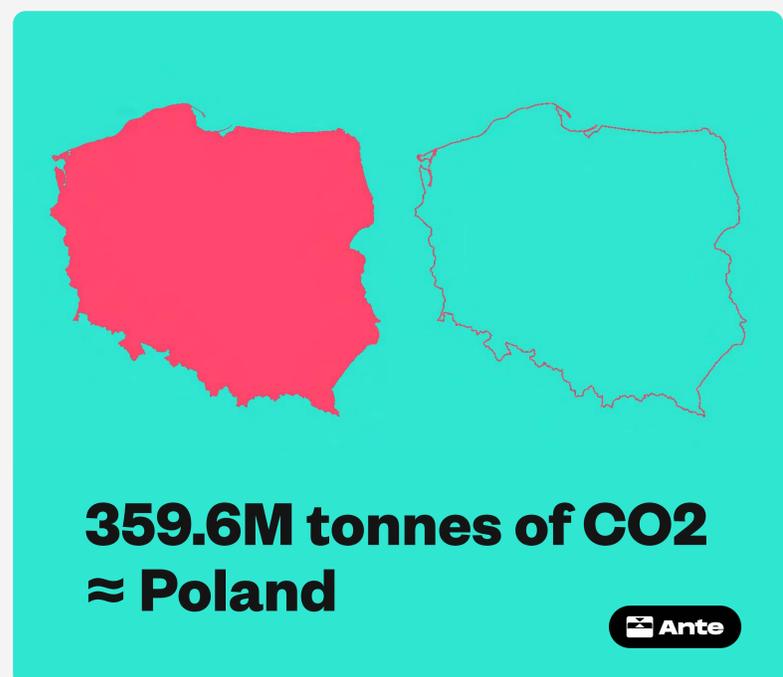
At Ante, our mission is to create a returns economy which significantly improves the returns experience for its most important stakeholders: the shopper, the merchant, and the planet.

Key findings

- If the growth in online returns continues on its current trajectory, by 2025, the emissions associated with returns could surpass Poland's annual CO2e bill.³

- Over 50% of returned items go straight to landfill, rather than being resold.⁴

- Retailers can make a difference - ASOS for example demonstrated that simply removing paper return slips from their bags saved the equivalent of 8,450 trees annually.⁵



Introduction

‘Bracketing is the industry term for a “buy now, choose later” approach to online shopping.⁶ It is the act of buying products with the intention of sending them back, a process which has become so common that around 30-40% of all clothes purchased online are returned.

Not only is this wasteful (*less than half of returned items go back on sale*) but these garments also enter a reverse supply chain which adds even more pollution than the initial forward delivery. The majority of online shoppers participate in bracketing: nearly two-thirds of shoppers last year bought multiple sizes or colours of the same item, with the intention of returning some of the items.⁷

The fashion industry is one of the world's biggest polluters, emitting more CO2 every year than aviation and maritime shipping combined. The returns economy's impact on the environment is also severely damaging.

Currently every year, 9.6 billion lbs of returns wind up in a landfill (*≈10,500 Fully loaded Boeing 7475*).⁸ On top of that, nearly 27 million tons of CO2 emissions are emitted through the inefficient processing and transportation that ultimately take them there (*≈5.9 million cars driven for one year*).⁹

Finally, \$761bn worth of goods are returned every year¹⁰ (*≈\$74bn more than the GDP of Saudi Arabia, the 19th largest economy*).¹¹

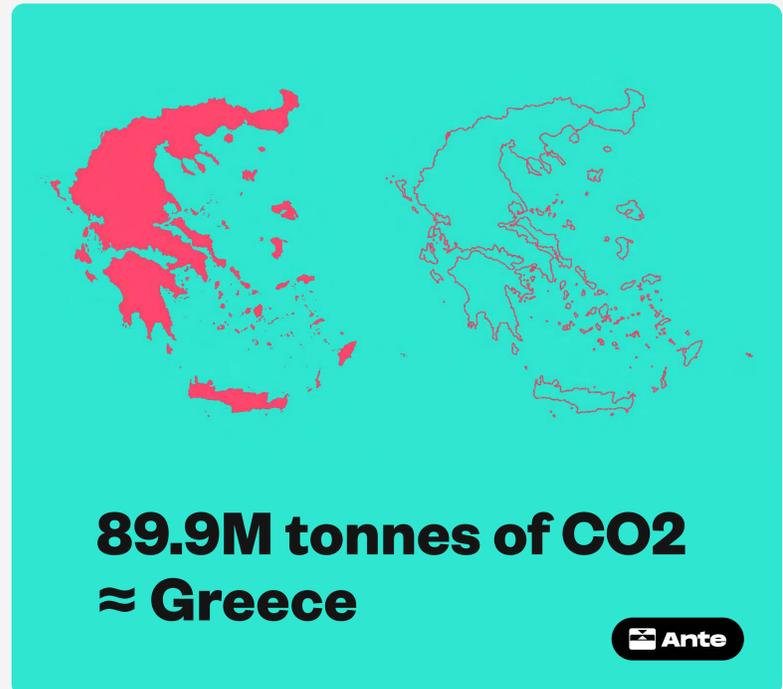
Projecting the negative impact

The environmentally damaging impact of returns are increasing year on year at an alarming rate. A key returns report (Optoro) published in 2020,¹² explained the unsustainable state of returns. Alongside outlining the present-day damage, the report provided a gloomy prediction of what 2025 could look like if we don't make any changes.

A second paper published in mid-2021,¹³ terrifyingly showed that these 2021 values had actually eclipsed the 2025 predicted figures made only 18 months prior. What was expected to take 5 years took less than 1.5.

If we extrapolate this rate of growth, returns in the US alone could be responsible for the following by 2025:

- **Value:** \$2.5 trillion worth of goods (\approx 8th largest economy).¹⁴
- **Waste:** 32 billion lbs of waste in landfills per year (\approx more than New York's annual waste).¹⁵
- **Emissions:** 89.9 million metric tonnes of CO₂ per year (\approx Greece CO₂e emissions, the 65th largest emitter globally).¹⁶



These values are for the US alone. Trying to get a global figure based on these US figures represents a more unprecedented number. By using GDP¹⁷ as the metric to calculate the global figure, returns in 2025 could produce the following:

- **Value:** \$10 trillion worth of goods (\approx 3rd largest economy).¹⁸
- **Waste:** 128 billion lbs sent to landfill (\approx London's annual waste, x3).¹⁹
- **Emissions:** 359.6 million tons of CO₂ (\approx Poland's CO₂e emissions, the 27th largest emitter globally).²⁰



Core problems

There are three main ways in which returns harm the environment:²¹

1. Carbon emissions from vehicles
2. Waste products in landfills
3. Use of excess packaging & paper

1. Emissions

Problem

Every returned package leaves a trail of emissions. Despite the movement towards electric and hybrid transport method, the problem is getting worse due to the growing returns volumes.

- 27 million tons of CO2 emissions are emitted annually during the returns
- The process of sending back unwanted items and potentially re-selling them results in 10 billion unnecessary transportation trips every year.²²

Solutions

- Offsetting reverse supply chain emissions.
- Smart routing of returned items.
- Better sizing technology / standardisation across industry.
- More accurate photos and descriptions of items on website.
- Use of EV based couriers.

Our approach

Ante allows customers or merchants to offset their returns courier emissions in a single tap when placing their return. We calculate this dynamically based on carrier information and start and end destinations.

Ante incentivises customers to upload a photo of the item before returning. This provides merchants visibility on the item before it arrives at their warehouse and allows them to divert items to relevant destinations depending on specific criteria saving on additional trips and resources.

2. Landfill

Problem

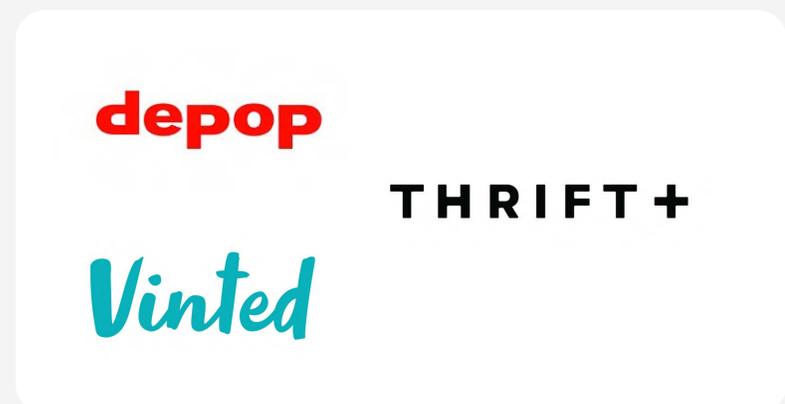
The majority of returns are sent to landfill (9.6 billion lbs every year). Only a fraction of returns are resold. In the United States 84 percent of unwanted clothes in 2012 went into either a landfill or an incinerator.²³

- **Pollution:** When textiles decompose, they generate methane gases and leak toxic chemicals and dyes into the groundwater and soil. It can take up to 200 years for some items to decompose in a landfill.²⁴
- **Manufacturing:** Retailers expect a significant percentage of their products to go to waste (given the return rates). Thus, they intentionally produce more than they expect to sell to ensure that there will be enough of whatever sizes or models prove to be keepers. Quantifying the amount of waste related to intentional overproduction is nearly impossible.²⁵
- **Cost:** Returns cost UK retailers around £60 billion annually, and it's often cheaper to put them in landfill instead of reselling them.²⁶

Solutions

- Partnerships with circular economy marketplaces to resell unwanted items growing at a rate that is much faster than new sales.
- Use of natural and organic materials so any items which result in being added to landfill, do not leak harmful substances into the surrounding environment.

Companies like Thrift+ have successfully diverted 10s of thousands of items from landfill and sent profits to charities.²⁷



Our approach

Ante enables customers to effortlessly list unwanted items which are outside the returns window on second hand clothing websites using product SKU information and their Ante profile.

Ante is also actively looking to bridge the gap directly between the retailers and second-hand clothing websites, allowing our brands to sell unsold products at a lower cost, rather than throwing them away. Given landfill decisions are typically based on business margins we believe the ideal solution is both more economical and planet-conscious.

3. Use of excess packaging

Problem

Online retailers continue to use standard box sizes to ship the majority of item, filling free space with packing filler. Paper based returns forms and physical labels are still widely used across the industry.

In reality, only about 54% of packaging gets recycled.²⁸



Solutions

- **Paperless returns:** 58% of British consumers admit they would switch to a different brand because it uses less packaging.²⁹
- Custom or flexible package sizes, not a one size fits all packaging approach as this takes up too much space in the vehicle and leads to unnecessary waste.
- Use of 100% biodegradable bags: These bags are rare in e-commerce, but they need to become cheaper and standardized in order to reduce the impact of packaging and paper.

ASOS made the switch to paperless, and got rid of 64 million paper forms a year. By taking returns online, they saved 8,450 trees or 20,000kg of paper annually.³⁰

Our approach

Ante only supports paperless QR-code based returns. This saves paper, reduces waste and provides a better experience for both sides.

Our goal is to bring the paperless standard to the whole of ecommerce.

COVID-19 & online returns

Covid has played a large part in accelerating the negative environmental impact of returns. The pandemic pushed even the most technology-averse towards shopping online, and as a result the volume of returns has gone, as one industry expert puts it, 'absolutely nuts'.³¹

Customers

Customers are also taking longer to return items, meaning even more time is lost in that critical item re-sale opportunity window. Comparing pre and post-Covid 'time to drop-off', we see a 23% increase. For the average 30 day returns window, that means one week less for retailers to receive the item.³²

This problem is currently at the worst it has ever been, and is set to increase further given 67% of consumers say they shop differently now due to COVID-19.³³ One thing is for certain. The numbers of returns are unlikely to drop any time soon.

Retailers

Since the pandemic the time it takes for a merchant to register a return has gone up dramatically. There has been an 80.3% increase, from 4.13 to 8.17 days to process a return on average.³⁴ Increased volumes now mean customers are routinely waiting 14 business days for their refunds.

About this report

This report was created with the goal to better inform our retailers, partners and investors. Our mission at Ante is to create a returns economy which significantly improves the returns experience for its most important stakeholders: the shopper, the merchant, and the planet.

The research has helped us inform and prioritise our own initiatives to Carbon Neutral Returns that are fully integrated into our product and outlined in the "our approach" sections.

More broadly we hope these findings continue to motivate sustainable e-commerce companies and service providers to find solutions that mutually benefit both the end customer and our environment which we share.

"There is no Planet B".³⁵
— Ki-moon, Stanford

What can you do?

For more information or sustainable collaborations that raise awareness or combat the impact of returns, we would really like to hear from you, please reach out to carbon@antereturns.com

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We need to start this change today.

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