

Adevinta

A hand is shown holding a small globe of the Earth. On top of the globe, a fresh orange with a green leaf is placed. The background is a warm, orange-yellow gradient. The text 'Second-Hand Effect 2022 Report' is overlaid in white on the globe.

# Second-Hand Effect 2022 Report

Calculating the potential environmental  
benefits of second-hand trade

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In 2022, 25.3 million tonnes of carbon dioxide emissions were potentially saved by people who chose to buy and sell used items through digital marketplaces operated by Adevinta.

The Second-Hand Effect 2022 Report shows how buying and selling second-hand products makes our marketplace users environmental heroes.

# What is the Second-Hand Effect?

Every time you choose to buy a pre-loved item, you are not only saving money but also making a choice which helps create a positive impact on our planet.

The purchase of a used item potentially means one less new product needs to be manufactured, and the old product serves a new purpose. This applies to any used item – a laptop, a TV, a bicycle or a piece of furniture. There are numerous benefits. For example, buying a used laptop instead of a new one can mean the use of less energy and fewer raw materials, reduced greenhouse gas emissions, and less electronic waste, often referred to as e-waste.

Another benefit is that the release of hazardous chemicals associated with the disposal of a laptop can be avoided. A single laptop might not seem like much, but when you multiply these many different environmental savings across our digital marketplaces, especially the potential reduction in e-waste, the impact can be surprisingly large.

By reducing the need for newly produced goods, we are promoting more sustainable consumption. We want to encourage people to make second-hand their first choice. We call this the Second-Hand Effect.

## We are at the heart of the second-hand economy

At Adevinta, we are at the heart of the second-hand economy. We are leading the shift away from 'linear consumption', where we buy something new and then dispose of it, to a more circular consumption, where we keep products and materials in continuous use by repairing, reusing and recycling. Adevinta makes it easy for people to reuse things.

According to The Circularity Gap Report 2023, the global economy is now only 7.2% circular and it's getting worse year on year due to rising material extraction. This means that more than 90% of materials are either wasted, lost or remain unavailable for reuse for years.

Today, five of the nine planetary boundaries have been crossed, which puts us in the 'danger zone' of irreversible change to our Earth's natural life-supporting system.

Through our marketplaces, we give previous purchases a new purpose and extend the life cycle of pre-loved products, therefore helping every customer make a positive impact on the planet. We give people the power to make smart choices, both for their pocket and the planet. We want to make it as easy and convenient to buy second-hand as it is to buy new.

When consumers make a trade on one of our online platforms, they are actually contributing to the United Nations Sustainable Development Goal (SDG) 12, which calls for Responsible Consumption and Production.

## Working together: the circular economy and climate change

The circular economy can help reduce climate impact.

This means we must not ignore the emissions arising from poor resource use. Renewables alone will not allow us to meet the 1.5 °C target that is the goal of the Paris Agreement (calling for countries to take concerted climate action to reduce greenhouse gas emissions in order to limit global warming). Renewables are making excellent progress, and any initiative or investment in broadening the use of renewables is to be welcomed. But we need as many tools in our 'fight climate change' toolbox as we can find. The circular economy is a powerful tool.

*"(...) 70% of global greenhouse gas (GHG) emissions are tied to material handling and use. If a circular economy was implemented across four global systems (Agrifood, Mobility & Transport, Manufactured Goods & Consumables and the Built Environment), virgin material extraction could drop by around one-third (34%), GHG emissions could be reduced enough to limit global temperature rise to 2-degrees, and crucially, the current overshoot of five planetary boundaries could be reversed."*

The Circularity Gap Report 2023  
(published by Circle Economy: [www.circle-economy.com](http://www.circle-economy.com)).

# Second-Hand Effect results for 2022

Adevinta's Second-Hand Effect report for 2022 examines the potential environmental benefits our users generate by buying and selling second-hand goods on our marketplaces.

Over the last nine years, we have shown the positive environmental impact that arises when our users give previously owned goods a second home.

In 2022, we collected data from online marketplaces in key European markets and in Brazil: milanuncios in Spain, subito in Italy, leboncoin in France, Willhaben in Austria, Marktplaats and 2dehands/2ememain in Benelux, Kleinanzeigen in Germany and OLX in Brazil.

**milanuncios**

**subito**

**leboncoin**

**Marktplaats**

**WILLHABEN**

**kleinanzeigen**

**2dehands  
2ememain**

**OLX Brasil**

## Second-Hand Effect results for 2022: raw materials

# Potential plastic, aluminium and steel savings

We looked at the materials used to manufacture the goods sold on our marketplaces in 2022.

Then we calculated the quantity of plastic, steel and aluminium that we could assume would no longer need to be produced as a result of the many second-hand trades on Adevinta's platforms.

Raw materials saved:  
tonnes

This is what you can potentially manufacture  
with this volume of raw materials

Plastic  
**1.5 million**



**28 billion** 2L PET= bottles



**91 million** plastic waste bins

Steel  
**9.1 million**



**1,247** Eiffel towers



**358 million** bikes

Aluminium  
**0.9 million**



**62 million** cans



**30 billion** cell phones

Second-Hand Effect results for 2022:

# Potential carbon dioxide emissions savings

We analysed the products our users traded, and calculated how many tonnes of carbon dioxide emissions were potentially saved by keeping existing items in use instead of producing new ones.

The people who bought and sold on our participating marketplaces in 2022 potentially saved 25.3 million tonnes of carbon dioxide emissions. This is equivalent to the annual carbon footprint of 3.4 million European citizens.\*

Emissions in tonnes: **25.3 million**

=

**4 million**

petrol-powered  
passenger cars  
circumnavigating the globe  
along the equator

**6.3 billion**

cotton T-shirts



One person flying

**71.3 million**

times one way between  
New York City (JFK)  
and Barcelona (BCN)

**14.7%**

of the annual  
CO2 emissions  
of the Netherlands  
(2021 data)

\*European Environment Agency data shows that emissions for the EU are 7.254 tonnes CO2eq per person. Therefore 25.3 million tonnes is equivalent to more than 3.4 millions europeans (2021 data source)









# Potential combined savings by Adevinta users

by marketplace  
(raw materials and carbon emissions)



Potential savings (tonnes)

	CO2eq	Plastic	Steel	Aluminium
<b>Benelux</b>				
<p><b>Marktplaats</b></p> <p>Marktplaats is the Netherlands' favourite online source for selling or buying second-hand goods.</p>	885,552	51,987	303,328	31,454
<p><b>2dehands 2ememain</b></p> <p>Since 2010, 2dehands/2ememain has been the Belgian market leader in online classifieds.</p>	408,328	24,805	164,262	16,225
<b>Germany</b>				
<p><b>kleinanzeigen</b></p> <p>Launched in 2009, Kleinanzeigen is Germany's top online classifieds marketplace.</p>	6,360,421	351,588	1,588,182	211,352
<b>Spain</b>				
<p><b>milanuncios</b></p> <p>Founded in 2005, Milanuncios is one of the most experienced platforms in the second-hand market in Spain.</p>	922,557	59,126	439,780	39,094
<b>France</b>				
<p><b>leboncoin</b></p> <p>Leboncoin is France's top classifieds website and the leader in real estate, motors and jobs.</p>	11,844,903	732,990	4,847,868	462,299
<b>Italy</b>				
<p><b>subito</b></p> <p>Founded in 2007, Subito is Italy's leading classifieds service.</p>	2,730,947	152,746	1,010,886	96,893
<b>Brazil</b>				
<p><b>OLX Brasil</b></p> <p>OLX is the Brazilian market leader in generalist online classifieds, as well as in the motors and real estate verticals.</p>	1,865,082	99,798	648,301	58,155
<b>Austria</b>				
<p><b>WILLHABEN</b></p> <p>Willhaben started operations in 2006 and is Austria's biggest digital marketplace.</p>	295,784	16,947	102,376	10,187

# The Second-Hand Effect method





## How did you develop the method for calculating the Second-Hand Effect?

The method was developed by the consulting company Ethos in collaboration with IVL, the Swedish Environmental Research Institute. To calculate potential savings in terms of plastic, steel and aluminium, as well as CO2 emissions, we analysed the advertising data from the year 2022 and used algorithms to determine the number of sales that were successfully completed. These served as input to the methodology of Ethos and IVL, to calculate the corresponding potential savings according to classification and material composition. The estimated emissions generated by our business as a result of our company travel and energy consumed by our offices were subtracted, as well as the estimated user emissions for when goods are transported between a buyer and a seller.

## How did you determine the number of sales completed?

We divide the total number of ads that we believe have resulted in a sale by the total number of ads published for that category on the given marketplace. We express this as a percentage that was used to determine the potential savings of raw materials and CO2 emissions.

## How did you choose which results to analyse?

Upon the methodology's development, IVL conducted random sample tests on products that matched those in published ads. IVL chose between 10 and 50 products for each selected ad category so that the sample was sufficiently representative. Then IVL analysed the results to calculate average material partition (the percentage of each material present) for each product.

## Which adverts did you exclude?

For the analysis, we focused on second-hand adverts (as opposed to adverts for new products). We did not include company adverts – what we call 'professional' adverts – since they tend to feature new items, not second-hand ones. We also excluded advertising of pets, services, concert tickets, collectibles, travel and real estate.

## What about products with continuous usage of energy such as motor vehicles?

Products with continued energy input (such as cars) will continue to produce emissions over the extended life of the product. We can only calculate a positive impact arising from a used car. This positive impact comprises the savings that arise from not having to manufacture a new car or to dispose of it at the end of its product life. The methodology does not capture data associated with continuous usage.

## Is your Second-Hand Effect methodology the same for all Adevinta marketplaces?

The methodology to calculate material composition and emissions is the same for all sites although the sites have different ad categories and are of different sizes. Some marketplaces have more detailed categories as well as more insights regarding actual sold on site ads. For these sites, it is possible to have a more representative overview regarding calculations of raw materials usage and emissions. However, to maintain a consistency across the report, a common ratio for how many adverts actually result in a sale has been used for all sites respectively.

## How did you calculate savings of raw materials?

Upon development of the methodology, our research partner IVL analysed the weight of plastic, steel (carbon steel and stainless steel) and aluminium in an average product. To do this effectively, IVL used scientific resources such as life cycle assessment databases and specialist publications. However, IVL's resources are not publicly available and are therefore not subject to third-party review or verification.



## The Second-Hand Effect method

### How do you calculate energy consumed by your offices?

This was calculated as part of the methodology by means of emission factors, i.e. estimated CO2 per kWh for each country.

### What about CO2 emissions generated when a buyer visits a seller, or when items are transported from a seller to a buyer by a delivery company?

These are included. In the case of a sparsely populated marketplace, the average distance between a buyer and a seller was estimated by running a survey. Transportation distances in the remaining marketplaces – where we know the population density is higher – are therefore equivalent or lower. There may be greater savings if sellers use couriers to move purchased items to buyers. Since multiple packages can be sent via couriers to many different buyers, this could lead to a reduced emissions impact per consignment. However, there is currently no tracking to determine if a package was sent via courier or how many may have been sent via that courier.

### How do you calculate potential savings for cars?

Cars are usually resold several times, so a reuse-rate factor was therefore included in the calculation. The reuse rate allows us to estimate how many times a car is resold (on average) by calculating the turnover of the total number of cars during the average lifespan of a car.

### Is there any data you chose not to include?

Yes, the methodology omits three areas. First, our focus is on trading versus producing goods, not the usage of goods. So we didn't include emissions or waste generated in the use of a product such as a car's petrol consumption. Second, we didn't consider the full lifecycle of materials or potential use of recycled materials. Third, the methodology only considers the emissions from our company travel and office energy use when subtracting the emissions from our business operations. The impact of visitors to our marketplace sites and apps, as well as from our data centres, are omitted by the methodology.

### Why do you only talk of 'potential environmental benefits' or 'potential savings' arising from buying and selling second-hand goods on your marketplaces?

We do this because there is no guarantee that the production of new goods decreases as a result of second-hand trade. There's also no guarantee that items on our marketplaces are not eventually thrown away. The methodology developed by the consulting company Ethos in collaboration with IVL is based on the assumption of a 1:1 ratio: one second-hand product substitutes a first hand product. The results therefore represent the potential savings, since the methodology does not cater for the possibility that:

- a second-hand product could be an additional purchase instead of a replacement or substitution
- a second-hand market place could potentially contribute to a consumption increase linked to fast circulation of products when buying and reselling possibilities become convenient
- lower cost of second-hand goods could encourage increased consumption or impulse purchases of certain low-value items

## Adevinta

Adevinta is a leading online classifieds specialist, operating digital marketplaces in 11 countries.

The company provides technology-based services to connect buyers with sellers and to facilitate transactions, from real estate to motors, and consumer goods.

Adevinta's portfolio spans more than 25 digital brands, covering one billion people and attracting approximately 2.5 billion average monthly visits.

Noted assets include top-ranked leboncoin in France, Germany's leading classifieds sites mobile.de and Kleinanzeigen, Marktplaats in the Netherlands, Fotocasa, Habitaclia and InfoJobs in Spain, Subito in Italy, and 50% of fast-growing OLX Brasil. Adevinta employs around 5,700 people, including some 3,000 working in product and technology teams, committed to supporting users and customers daily.

Find out more at [Adevinta.com](https://www.adevinta.com).



IVL, the Swedish Environmental Research Institute, is an independent non-profit organisation owned by a foundation. This foundation is co-owned by the Swedish state and the business community.

IVL does research and provides business services related to all types of environmental questions.

They have extensive experience from performing life-cycle assessments and environmental certifications with a range of industries.

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