ethos

Second Hand Effect

Site specific results 2021

DBA

"How much greenhouse gas emissions and material can potentially be saved through second-hand trade, if each product replaces the production of a new?"

About the Second Hand Effect

The Second Hand Effect is a yearly conducted study based on the premise of potential environmental gains by consuming and trading second hand products, as the product may replace the need for a new product.

The Second Hand Project is conducted on a selection of Adevinta and Schibsted sites. Currently 8 Adevinta sites and 3 Schibsted sites are included, with more to come during 2022.

The methodology and calculations are developed by Ethos in collaboration with IVL Swedish Environmental Research Institute.

Presentation of the 2021 Second Hand Effect results

dba

All participating sites

blocket
Marktplaats
leboncoin
FINN
subito
dehands / ememain
milanuncios
tori
Jófogás
oLx
WILLHABEN.AT

Supported by

Adevinta

Schibsted

Developed by

ethos

ivl
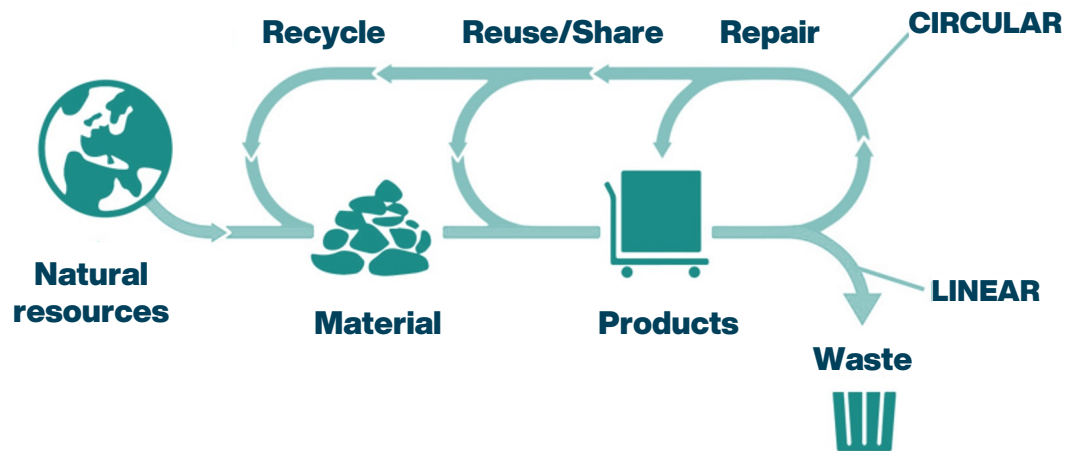Swedish Environmental Research Institute

Background and methodology

1

ethos

Second Hand Effect & circular consumption

Recycle — Reuse/Share — Repair — CIRCULAR

Natural resources — Material — Products — Waste — LINEAR

A resource-efficient way of consumption where repaired, reused, shared, and recycled materials and goods contribute to:

- Decreasing demand for virgin natural resources
- Decreasing demand for production
- Prolonging lifetime of goods
- Reducing waste

= Better for the environment than a comparable new product

ethos

Environmental benefits of circular consumption

Less consumption of new goods means less production, leading to:

...which results in less negative impact due to decreased:

...and gives positive environmental effect on:

- Less use of natural resources (Land, Wood, Oil, Coal, Minerals)
- More efficient use of existing goods – lifetime and use
- Less waste

- GHG emissions
- Depleted water resources
- Use of chemicals
- Deforestation
- Pollution

- Climate change
- Biodiversity
- Resource scarcity
- Ecosystems

ethos

Decrease of greenhouse gas emissions and material through secondhand trade

X

The share of published ads leading to sales

–

Greenhouse gas emissions from operations

(office, data center and business travel)
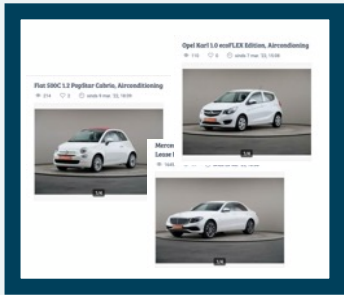
–

Greenhouse gas emissions from transport between sellers and buyers

=

The Second Hand Effect

ethos

Each ad category's resulting environmental impacts

Sample ads

10-50 sample ads are collected from each lowest ad category.

Some categories are excluded from the calculations due to limitations and assumptions, for example:

- Pets
- Collectibles
- Boats
- Other regional deviations

Material Composition

IVL translates each sample ad into its material composition and weight (plastics, metals, etc.).

Based on this, IVL puts together an average material partition for each advertisement category.

Life Cycle Assessment

Based on the average material partition, IVL performs a life-cycle analysis (sourcing, manufacturing, disposal) to identify an estimate for how much; CO2 emissions and material that is generated and used for an average ad in each category.
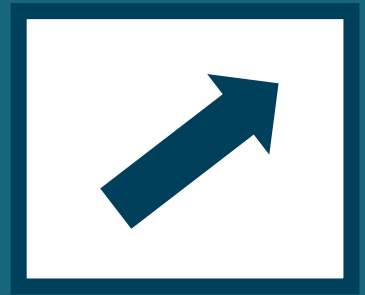
Impact Calculations
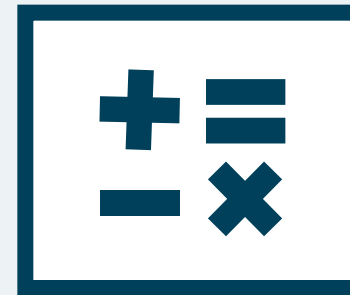
The number of sold ads in each category is multiplied by the estimated impact from an average ad in each category.

The GHG emissions from a secondhand transaction are deducted from the total amount of savings:

- Transportation of goods
- Energy consumption for operating the marketplace
- Business travel for the marketplace

Resulting Impact

Potential annual environmental benefits of second hand compared to new goods:

- Total savings of greenhouse gases
- Total savings of steel
- Total savings of plastics
- Total savings of aluminium
- Savings per sold ad

ethos

Results are this year presented in a pivot table to increase utility for site-specific interests

The pivot table allows expansion which enables the sites to see the results on third-level categories.

ethos

Results 2021

2

ethos

Result based on average sold-on-site rate

ethos

Results overview and reasoning

Average sold-on-site rate

In 2021, DBA potentially saved 157 thousand tonnes of CO_2e thanks to secondhand trade.

In addition, DBA contributed to the circular economy by potentially saving plastics, aluminium and steel.

As this is the first year DBA is included in the Second Hand Effect, no previous results can be used as a comparison.

Ad categories with most ads include: "Glass, porcelain and cutlery", "Various collections and objects", "Toys" and "Shoes and boots".

Potential GHG savings were highest in the following categories: "Sofas", "Rims and Tires", "Stationary computer" and "Dining room furniture".
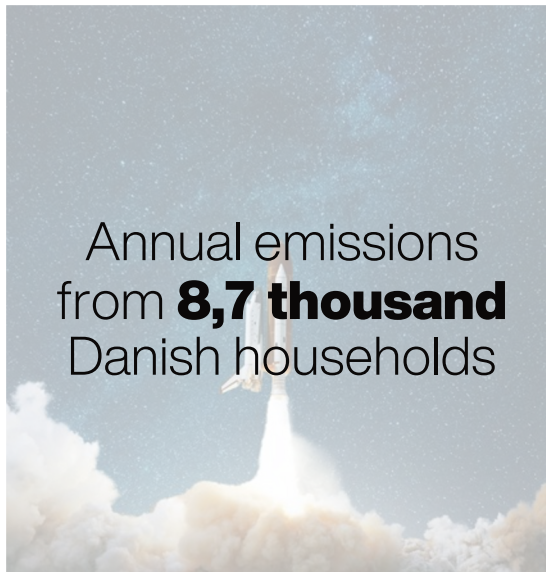
DBA (2021)	
Ads	
Total number of ads*	**8 855 728**
Total car ads*	**147 456**
Total sold-on-site rate %*	**32%**
GHG deductions (tonnes CO_2e)	
Power	**-167,3**
Transaction transports	**- 24 630**
Business travel	**No data**
Total potential savings (tonnes)	
CO_2e	**157 133**
Plastic	**6 710**
Steel	**24 414**
Aluminium	**3 697**
Total weight of ad content	**118 546**

*Ads that are relevant for the Second Hand Effect. See 'Methodology notes 3' for more information.

ethos

The 2021 savings for **DBA** equals to:
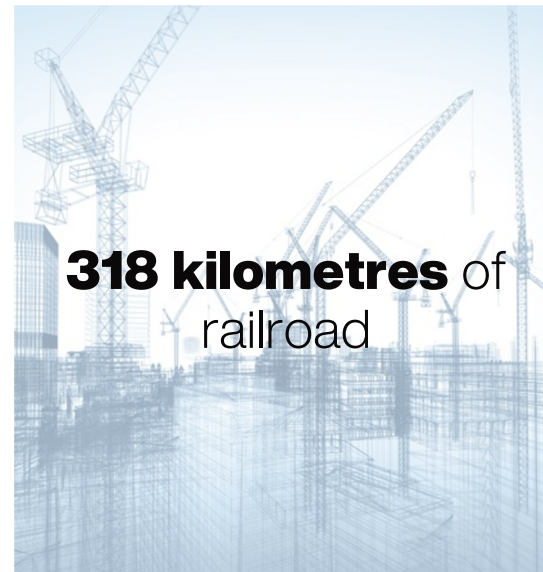
157 133 tonnes of CO2e-emissions

or...

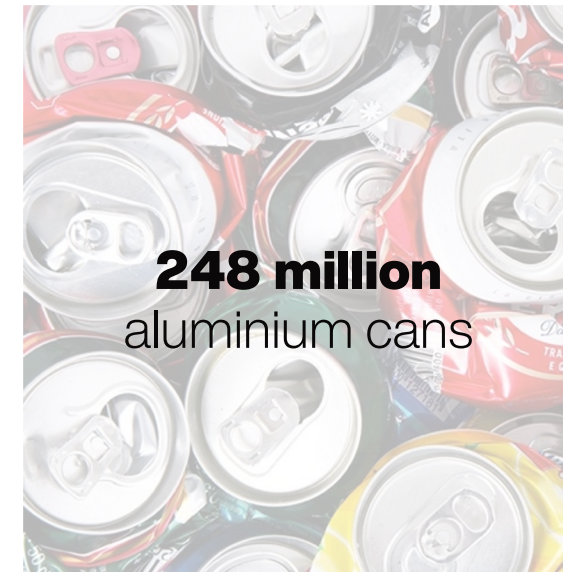Annual emissions from **8,7 thousand** Danish households

6 710 tonnes of plastics

or...

125 million PET bottles

24 414 tonnes of steel

or...

318 kilometres of railroad

3 697 tonnes of aluminium

or...

248 million aluminium cans

ethos

The 2021 savings for **DBA** equals to:

157 133 tonnes of CO2e-emissions

or...

Brewing 6,8 billion cups of coffee

1,3 full days of Denmark's total emissions

Manufacturing 1,7 million sofas

Producing 39 million cotton t-shirts

ethos
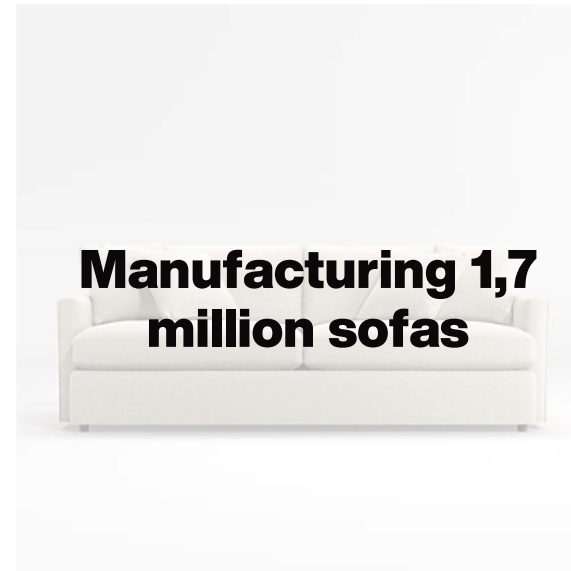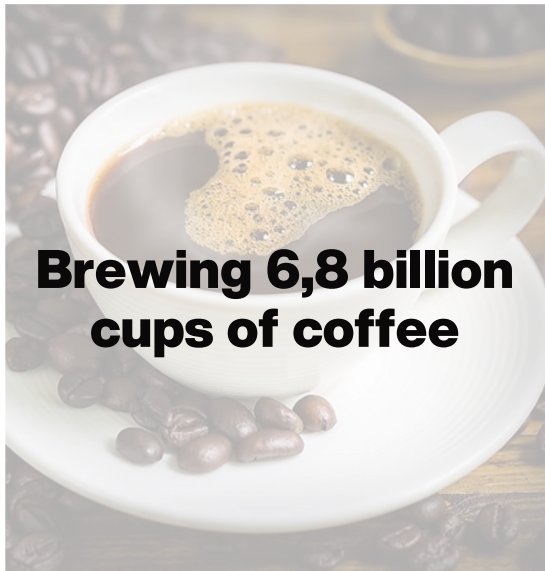
The 2021 savings for **DBA** equals to:

6 710 tonnes of plastics

or...

1 billion plastic bags

2,7 billion LEGO bricks

400 thousand waste bins

1,6 million Samsonite luggage

ethos
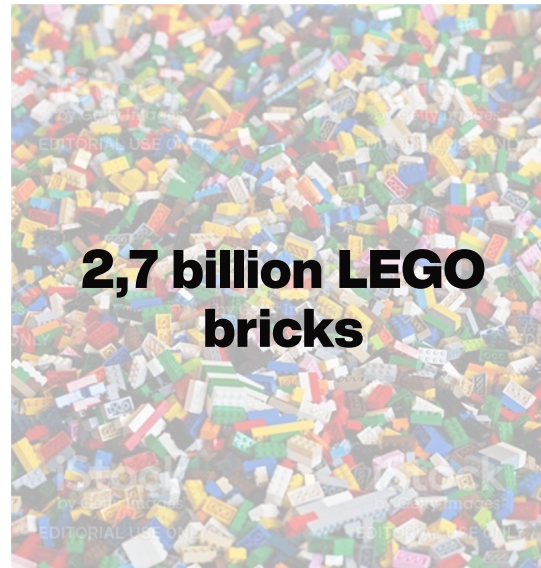
The 2021 savings for **DBA** equals to:

24 414 tonnes of steel

or...

195 Statues of Liberty

6,5 thousand containers

1 million bikes

27 thousand cars

ethos
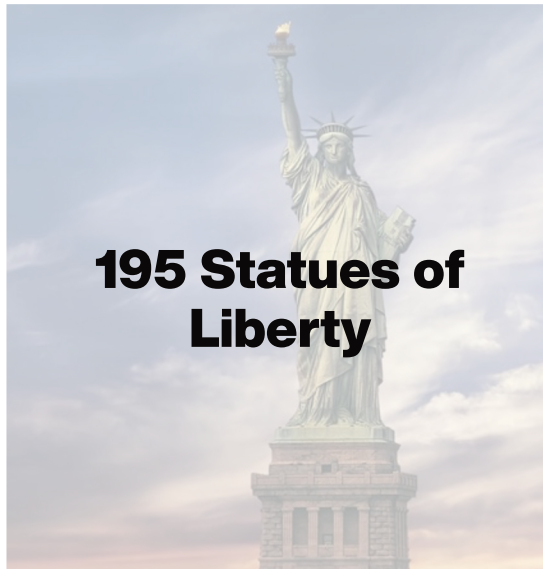
The 2021 savings for **DBA** equals to:

3 697 tonnes of aluminium

or...

19 thousand Teslas

119 million iPhones

160 thousand TVs

2 000 aluminium boats

ethos
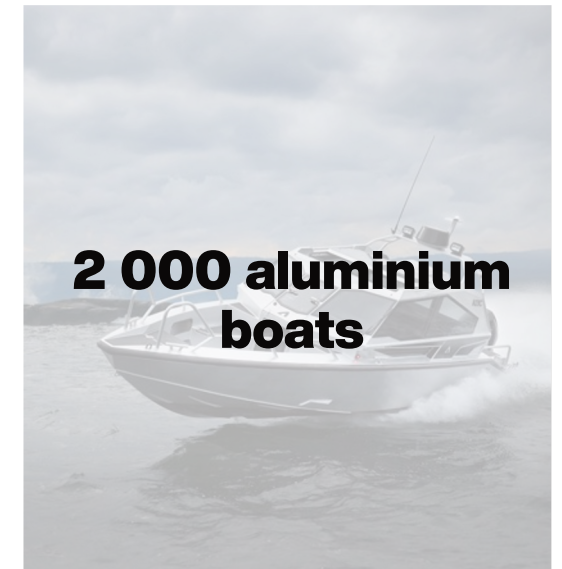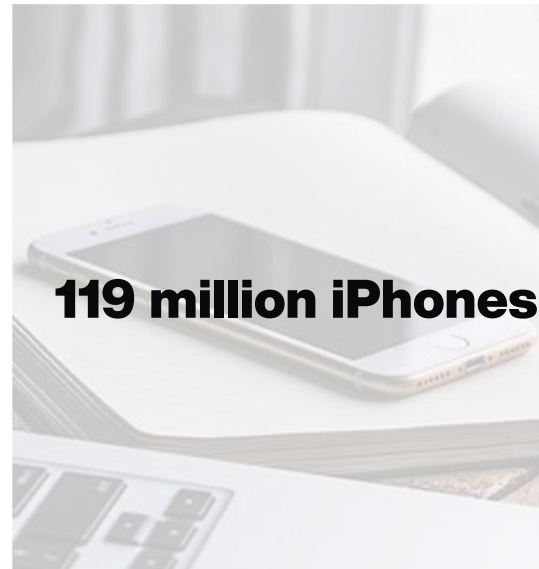
Detailed results (Average) – Access full dataset in Excel

Category	Included published ads	CO2e savings (tonnes)	Plastic savings (tonnes)	Steel savings (tonnes)	Aluminium savings (tonnes)
Biler	147 456	27 522	2 186	15 086	1 446
Billede og lyd	663 440	5 254	229	467	11
Biltilbehør	162 170	19 210	186	908	1 440
Både	3 666	23	1	2	0
Bøger og blade	551 850	58	0	0	0
Camping	6 997	1 972	97	327	88
Computer og spillekonsoller	486 396	18 606	168	368	8
Cykler	279 191	4 358	91	310	356
Dyr	64 299	314	15	0	0
Erhverv	27 050	540	30	298	16
Have og byg	261 595	5 763	328	1 278	142
Hobby	634 607	1 372	92	96	8
Mobil og telefoni	184 681	1 246	1	1	1
Motorcykler og tilbehør	22 445	172	13	81	8
Musikinstrumenter	24 762	108	4	10	0
Scootere og knallerter	39 725	316	25	172	17
Sport og fritid	189 342	780	54	1	3
Til boligen	2 130 314	56 616	2 519	4 897	90
Til børn	1 587 293	6 676	391	111	62
Tøj og mode	1 388 449	6 228	279	0	0
Totalsumma	**8 855 728**	**157 133**	**6 710**	**24 414**	**3 697**

ethos

Result based on specific sold-on-site rate

ethos

Results overview and reasoning

Specific sold-on-site rate

In 2021, DBA potentially saved 197 thousand tonnes of CO_2e thanks to secondhand trade. In addition, the site contributed to the circular economy by potentially saving plastics, aluminium and steel.

As this is the first year DBA is included in the Second Hand Effect, no previous results can be used as a comparison.

In addition to being a more accurate method, the potential savings when using the actual number of sold ads per category is 21-25% higher compared to using the average sold-on-site rate.

Ad categories with most ads include "Glass, porcelain and cutlery", "Various collections and objects", "Kitchen machines" and "Other toys".

Potential CO_2 savings were highest in the following categories: "Sofas", "Rims and Tires", "Stationary computer" and "Dining room furniture".

DBA - 2021		
Ads		
Total sold ads*	**2 798 897**	
Total sold car ads*	**51 707**	
GHG deductions (tonnes CO_2e)		
Power	**-167,3**	
Transaction transports	**- 24 630,3**	
Business travel	**No data**	
Total potential savings and increase from the average method		
	(tonnes)	**(%)**
CO_2e	**196 559**	**+25%**
Plastic	**8 301**	**+24%**
Steel	**29 852**	**+22%**
Aluminium	**4 473**	**+21%**
Total weight of ad content	**144 995**	**+22%**

*Ads that are relevant for the Second Hand Effect. See 'Methodology notes 3' for more information.

ethos

The 2021 savings for **DBA** equals to:

196 559 tonnes of CO2e-emissions

or...

Annual emissions from **10,9 thousand** Danish households

8 301 tonnes of plastics

or...

155 million PET bottles

29 852 tonnes of steel

or...

389 kilometers of railroad

4 473 tonnes of aluminium

or...

300 billion aluminium cans

ethos
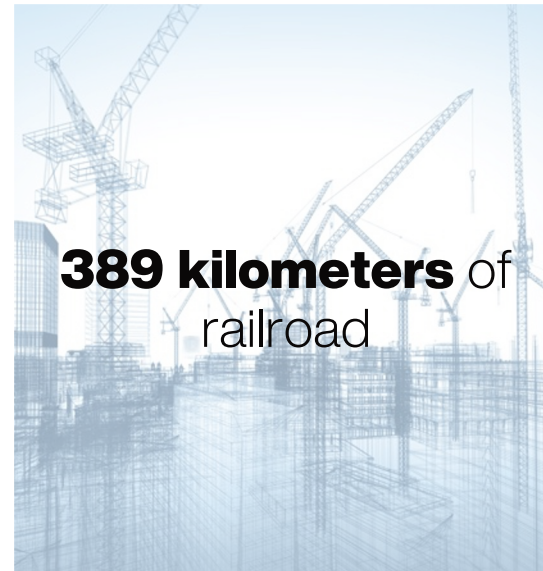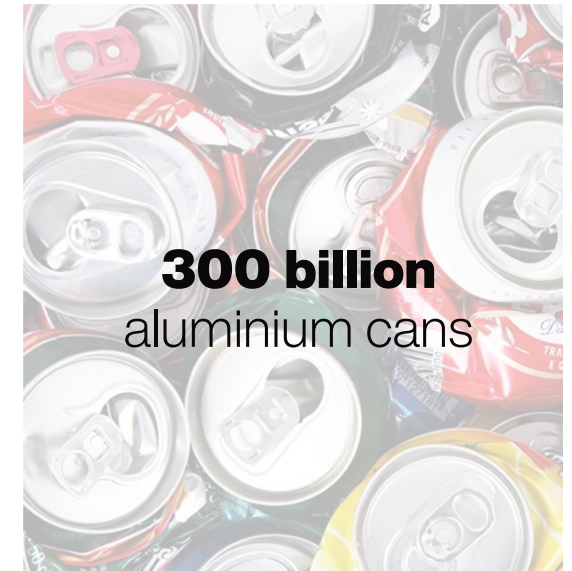
Detailed results (Specific) – Access full dataset in Excel

Category	Sold ads	CO2e savings (tonnes)	Plastic savings (tonnes)	Steel savings (tonnes)	Aluminium savings (tonnes)
Biler	51 707	31 603	2 441	16 863	1 615
Billede og lyd	214 610	7 426	306	649	14
Biltilbehør	58 089	23 358	247	1 131	1 675
Både	1 776	34	1	2	0
Bøger og blade	139 815	49	0	0	0
Camping	4 549	4 131	196	651	179
Computer og spillekonsoller	166 751	20 103	198	435	10
Cykler	124 776	6 384	130	442	507
Dyr	21 033	336	15	0	0
Erhverv	9 770	867	50	518	28
Have og byg	119 740	8 662	508	1 820	192
Hobby	150 115	1 270	77	91	7
Mobil og telefoni	62 419	1 505	0	2	1
Motorcykler og tilbehør	9 465	285	21	135	13
Musikinstrumenter	11 435	158	6	14	0
Scootere og knallerter	16 292	427	33	226	22
Sport og fritid	71 423	1 036	71	1	4
Til boligen	788 048	75 445	3 296	6 710	124
Til børn	497 735	9 225	512	161	83
Tøj og mode	279 349	4 255	191	0	0
Totalsumma	**2 798 897**	**196 559**	**8 301**	**29 852**	**4 473**

ethos

Methodology notes

ethos

Methodology notes

- When accessing the pivot table, the average potential GHG emissions and material use for each category are specified.

- The total weight is the estimated weight of the total material composition of all materials in the product. This includes both the materials included in this project (plastic, steel and aluminium), but also other materials.

- Cars are usually resold several times, so a reuse rate factor is included in the calculation.

- Some categories are excluded from the calculations due to limitations and assumptions, for example pets, collectibles, boats and other regional deviations.

- The total potential saved GHG emissions include deductions from travel between seller and buyer.

- The average distance between a buyer and a seller is based on a customer survey in a sparsely populated country. (i.e., a conservative number).

- The calculations are based on a conservative approach.

- Translating different activities and products into CO_2 equivalents is not an exact science, and it involves assumptions and estimates.

Remember:

We refer to the results as potential savings because it's difficult to be certain that the production of new goods decreases as a result of second-hand trade, or that sold items on our marketplaces are not thrown away.

ethos