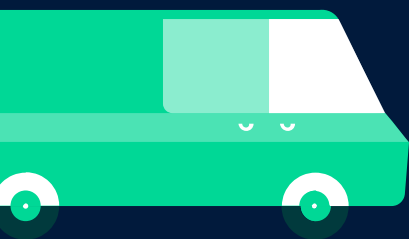


IMPACT REPORT 2024

# The impact of Brenger



brenger

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# We are Brenger

At Brenger, we have one clear mission: fill every van on the road as efficiently as possible. By bundling transport smarter, we reduce empty space in the vans, save kilometers, and cut CO<sub>2</sub> emissions. Our platform connects consumers and businesses with couriers who are already on the route. This makes buying and selling (new or second-hand) items easier and more sustainable.

With Brenger, each transport is handled by a courier who's already heading in that direction. Our technology calculates the most efficient route, so you pay a fair price and together we make an impact!



# Together, we make an impact

In 2024, we once again achieved impressive results:

**5,108,268 unnecessary kilometers avoided**

**982,900 kg of CO<sub>2</sub> emissions saved**

**3,711 new pieces of furniture did not need to be produced**

We are proud of these numbers! Every kilometer we spare makes transport smarter and cleaner. Together, we reduce pollution and boost efficiency on the roads. Each transport is matched to a courier who was already en route, meaning less driving overall. The result? More efficiency, fewer kilometers, and less emissions. That's how we create impact - together.

Brenger and our network of couriers and customers also make second-hand furniture transport easier. That stimulates the second-hand market, reducing the need for new products and extending the life of existing ones. This, too, saves CO<sub>2</sub>. We're happy to tell you more!

Did you know that those 5,108,268 kilometers we never drove equate to around 466 flights from Amsterdam to Bangkok? And the total CO<sub>2</sub> savings for 2024, combined with those 3,711 pieces of furniture spared, weigh about as much as 127 savannah elephants! We would need around 7 times the trees in Amsterdam's Vondelpark just to absorb that much CO<sub>2</sub> in a single year. That's why we say: preventing waste is better than curing it.

[brengertransport.com](https://brengertransport.com)

# In total since 2016,



**24,501,509**  
unnecessary kilometers  
avoided



That's the same as  
**2,000 flights from Amsterdam  
to New York**



**27,471 (new) furniture items**  
left unpurchased thanks to  
second-hand alternatives



**5,078 tonnes of CO<sub>2</sub> emissions**  
mitigated



Which is approximately  
the weight of  
**33,854 American  
refrigerators**



To absorb that much CO<sub>2</sub>,  
we would need  
**2,845 football fields full of trees**

# On the road to less CO<sub>2</sub>

At Brenger, we are building a greener future. That means cutting unnecessary CO<sub>2</sub> emissions. How? Through innovative transport solutions, fewer empty kilometers, and a strong push for second-hand market.



## Fewer vans on the road

With our platform, transport runs more efficiently. Couriers drive optimally loaded vans and smart routes. Did you know that road transport in the Netherlands emits millions of kilos of nitrogen oxides every year? By making transport more efficient, we reduce emissions and keep the air cleaner.



## Stimulating buying and selling second-hand items

Our transport services make it easier to buy and sell second-hand items such as furniture. Research shows people are more likely to give their items a new life if there's a reliable, affordable transportation service available. That's where Brenger comes in!



## Alternatives

What if Brenger weren't around? We asked our users, and most said they would rent a van or use their own vehicle to pick up items - leading to extra kilometers, more fuel consumption, and higher CO<sub>2</sub> emissions. By bundling transport, we save not just money, but also the planet!





brenger



# 5.1 million kilometers saved

On average, with Brenger, 32% fewer kilometres are driven by bundling transports. And that's thanks to our innovative platform, which knows right away which of our couriers is driving which route and with what loading capacity from A to B. Then it's easy to calculate whether there's still room for a couch or a bike. We distinguish between private and business transport requests (which are handled separately).

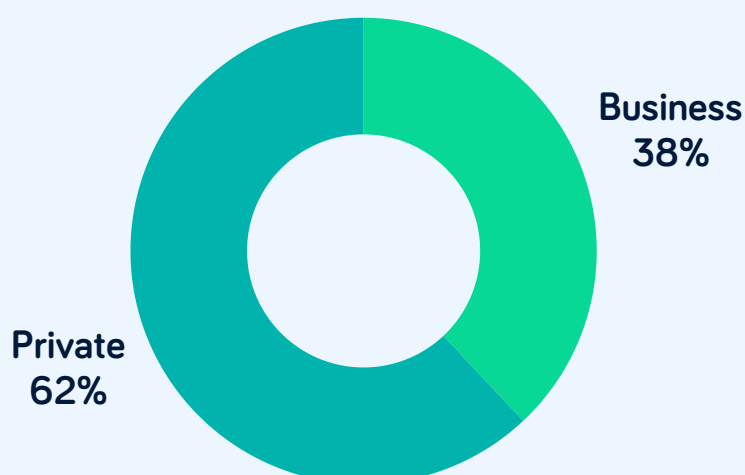
## One big bundle

At Brenger, we combine transports that fit well together. Routes are optimized so that the total distance of the bundle is much shorter than if each transport were done separately. How much shorter? On average, 10 transports of 100 km each turn into a 680 km route instead of 1,000.

## Single transports

There are also single transports that are not linked to other transports. The courier can add these to his own planning and route for that day.

Curious how we calculate those saved kilometers? Check the appendix for all the details.





# 3,711 furniture items saved

2024, people in the Netherlands used Brenger to transport 250,169 bulky items.

The favorites? 27,190 tables, 19,213 chairs, 15,033 wall panels, 11,649 sofas, and 11,945 cupboards. And that's not all - thousands more bulky items were transported too, like large boxes, beds, bikes, and DIY materials.

In addition to avoiding unnecessary kilometers to transport these items, 259,225 kg of CO<sub>2</sub> emissions were saved.\* That's how much it would have cost if each second-hand furniture item had been bought brand new instead. We're proud to help give these items a second life - together with our amazing users and couriers.



\*Based on Brenger's 2021 calculation model, see attachment.

Over 40% of Dutch people would otherwise hit the road themselves to transport a second-hand item.

**With all the consequences that come with it. When you have to go yourself, you always drive twice the distance, resulting in more driven kilometres and more CO<sub>2</sub> emissions. We believe we can make an impact here and prevent these unnecessary kilometres.**

80% of our private customers use Brenger to transport second-hand products. In 2022, we asked over 1000 users, "What if Brenger didn't exist?" The largest group, a significant 24%, responded that they would have rented a van and gone to pick up the second-hand couch, chair, or fitness equipment themselves. Other options were also realistic: 16% would have used their own vehicle, 21% would have hired another transport company, and 19% would not have bought a second-hand product at all.



**24% would rent a van  
and drive themselves**



**16% would drive back and  
forth with their own car**



**21% would hire another  
transport company**



**19% wouldn't buy  
the product**

# Full speed ahead... on to 2026

We hope this report gave you a clear look at the impact we made in 2024 - and how our team of over 50 professionals is working every day to make transport more sustainable.

2024 was a dynamic year. We kicked off exciting new partnerships, including integrations with Marktplaats and Whoppah. These collaborations help even more people buy and sell second-hand goods with ease - while making sure transport is arranged smartly and sustainably.

We kept growing our impact: saving 5.1 million kilometers and nearly 1 million kilos of CO<sub>2</sub> together. Meanwhile, we continued to optimize, bundle, and build toward a future where transport works better - for people, their wallets and the planet.

In 2025, we're ready to take it even further. Here's to easier, efficient, and more sustainable bulky transport for everyone!

Warm regards,  
Team Brenger





Brenger was founded in 2016 with one clear mission: to efficiently fill every van on the road. It's better for the planet, great for couriers, and affordable for both business and private customers. To make this happen, Brenger collaborates with various partners - from Marktplaats, Whoppah, Reliving, and Troostwijk Auctions, to furniture stores and more than 1,000 independent couriers and small courier companies. Since it started, Brenger has mitigated more than 5,078 tonnes of CO<sub>2</sub> from getting into the air.

[brengertransport.com](https://brengertransport.com)

# Assumptions




On this page, all assumptions made in the report are described with an indication of how certain we are about the assumption. We do this to be as transparent as possible in our research and to recognise that some factors cannot be determined with full certainty and have therefore been estimated. Each assumption has a certainty score between 1% and 100%. Some assumptions come directly from our data and therefore have a 99% certainty, while others are more difficult to estimate and for example have a certainty of only 30%.

## Assumptions for number of kilometres



### Answer:

### Certainty:



Average distance between the pick-up and delivery location:

• private bundled transports	107.02 km	
• private single transports	94.31 km	
• business bundled transports	105.73 km	
• business single transports	127.43 km	











Alternatives to Brenger (individuals):

• driving themselves using a car	22.5%	
• driving themselves using a van	33.5%	
• using a different transportation business	19.1%	

Alternatives for Brenger (business):

• driving themselves using a car	0%	
• driving themselves using a van	20%	
• using a different transportation business	80%	

Miscellaneous:

• How efficient are other businesses?	1.3	
• How efficient are bundles?	68%	
• How many bundled kilometres are attributable to Brenger?	95%	
• How many 'single' kilometres are attributable to Brenger?	65%	
• How much extra CO <sub>2</sub> emissions because of extra weight bundled?	1.002	
• How much extra CO <sub>2</sub> emissions because of extra weight 'single'?	1.017	
• How much extra fuel consumption because of driving during rush hour? (reference 4)	1.35	
• What percentage of deliveries are during rush hour?	14%	
• How much extra fuel consumption is due to the use of older vans?	1.08	
• How much CO <sub>2</sub> production per driven kilometre?	0.155 kg	

## Assumptions for furniture

CO<sub>2</sub> emissions per item of furniture:

- Wardrobe
- Sofa
- Tables
- Chairs
- Bed

Miscellaneous:

- Percentage who would have otherwise bought a second-hand product new
- Longevity of second-hand product compared to a new product

Answer: Certainty:

47 kg



89 kg



25 kg



40 kg



45 kg



16.4%



65%



# Appendix

## **Calculations of Brenger kilometres (bundled)**

Average distance x efficiency bundles x Percentage attributable to Brenger bundle x factor extra weight x (factor extra fuel consumption x percentage rush hour + (1 - percentage rush hour))

## **Calculations of Brenger kilometres (single)**

Average distance x percentage attributable to Brenger 'single' x factor extra weight x (factor extra fuel consumption x percentage rush hour + (1 - percentage rush hour))

## **Calculations kilometres other businesses**

Average distance x percentage that uses a different business x efficiency of other businesses

## **Calculations kilometres people driving themselves**

2 x average distance + (rent a car + factor less emissions from van x rent a van)

## **Factor for extra weight**

A vehicle with 50kg extra weight uses 0.0035L extra fuel per kilometre (see reference 1). This amounts to 0.00931 kilogram of extra CO<sub>2</sub> emissions (see reference 2). An average van emits of 0.155 kg CO<sub>2</sub> per km (reference 3). so the amount of extra CO<sub>2</sub> emitted is 0.00931/0.155=6%. It is assumed for 'single' transports' 65% of the kilometres can be attributed to Brenger transports. Therefore, the remaining 35% is the upper limit for which extra weight can be in the van. Because every kilometre driven extra does not mean extra weight per kilometre, the 35% further decreased by a multiplication of 0.8. The final multiplication factor then comes down to  $(1 + 0.06 \times 0.35 \times 0.8) = 1.017$ . For bundled transports, it is assumed that 95% of the distance can be attributed to Brenger. In which case the multiplication factor is  $(1 + 0.06 \times 0.05 \times 0.8) = 1.002$ .



# How do we calculate the impact?

## Stimulating buying and selling of second-hand items

Measuring is knowing. As previously mentioned, with Brenger we contributed in 2021 to the fact that more than 5,927 pieces of furniture did not need to be purchased new. This also contributed to a CO<sub>2</sub> saving of 313,916 kilograms, to be exact. In calculating this, we rely on various sources, some of which can be found on the sources list on page 22. In addition, we surveyed more than 3000 of our customers.

### Calculation model

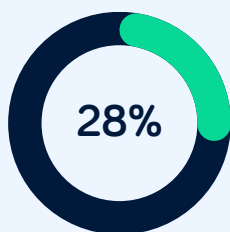
To calculate the total savings, we first examined the amount of furniture not produced because Brenger extends the lifespan of second-hand products. Three elements were multiplied together for this purpose. Specifically: the total number of second-hand products, the percentage of customers who would have otherwise bought the same product new, and a factor for the lifespan of second-hand products compared to new products. Our survey asked our customers whether they had a second-hand product transported. And if so, whether they would have otherwise bought this product new. Of the 3223 responses obtained, 16.4% would have bought it new without Brenger.

Because there is a difference in the lifespan of a new piece of furniture and a second-hand one, the number of saved pieces of furniture was multiplied by 0.65. This means that it was assumed that a second-hand product has a lifespan that is 65% of that of a new product.

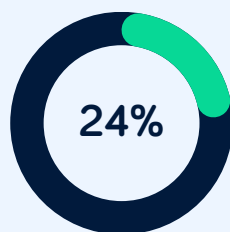
# How are saved furniture items determined?

The top 5 items that Dutch people transport through Brenger are cabinets, sofas, tables, chairs, and beds, respectively. The average CO<sub>2</sub> emissions produced per product are listed next to each item.

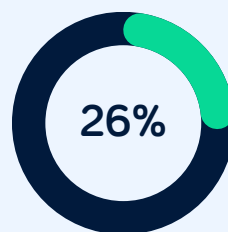
To calculate the total savings, we first looked at the number of furniture items that were not produced because Brenger extends the lifespan of second-hand products. This calculation took an average from multiple external sources (see the Sources list). Since the percentages of the top 5 products do not add up to 100%, they have been proportionally multiplied to make it the case.



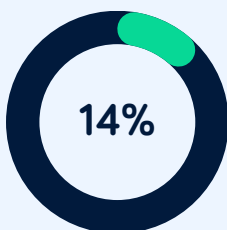
**SOFAS**  
**89kg CO<sub>2</sub>**



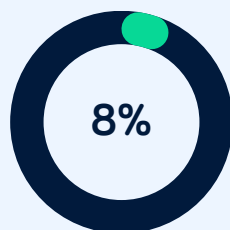
**TABLES**  
**25kg CO<sub>2</sub>**



**CABINETS**  
**47kg CO<sub>2</sub>**



**CHAIRS**  
**40kg CO<sub>2</sub>**

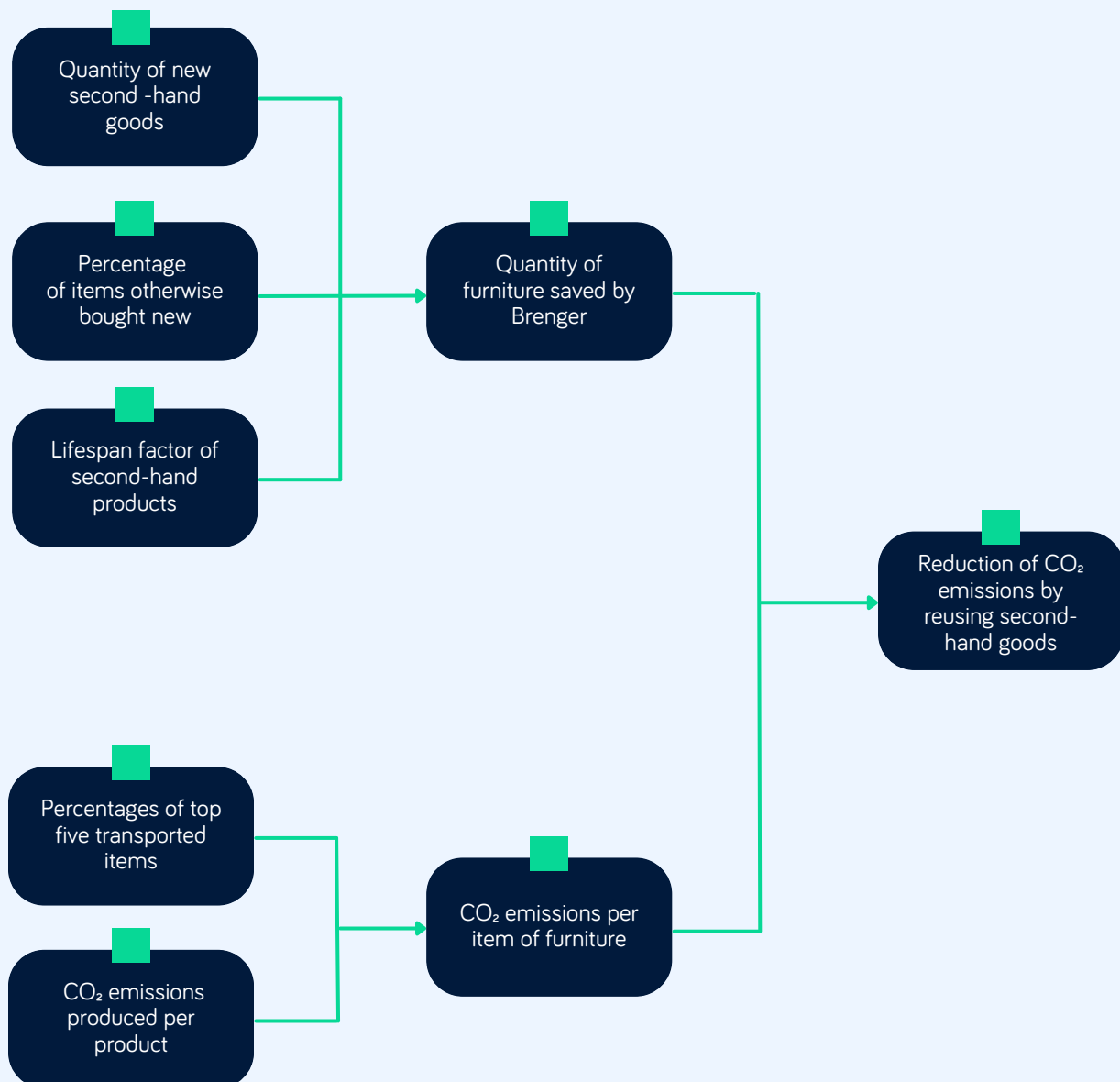


**BEDS**  
**45kg CO<sub>2</sub>**

## Savings

The calculation for the number of kilograms of CO<sub>2</sub> saved is outlined below in figure 1. The total reduction is made up of two main parts: the number of items of furniture saved by Brenger, and the CO<sub>2</sub> emission per piece of furniture.

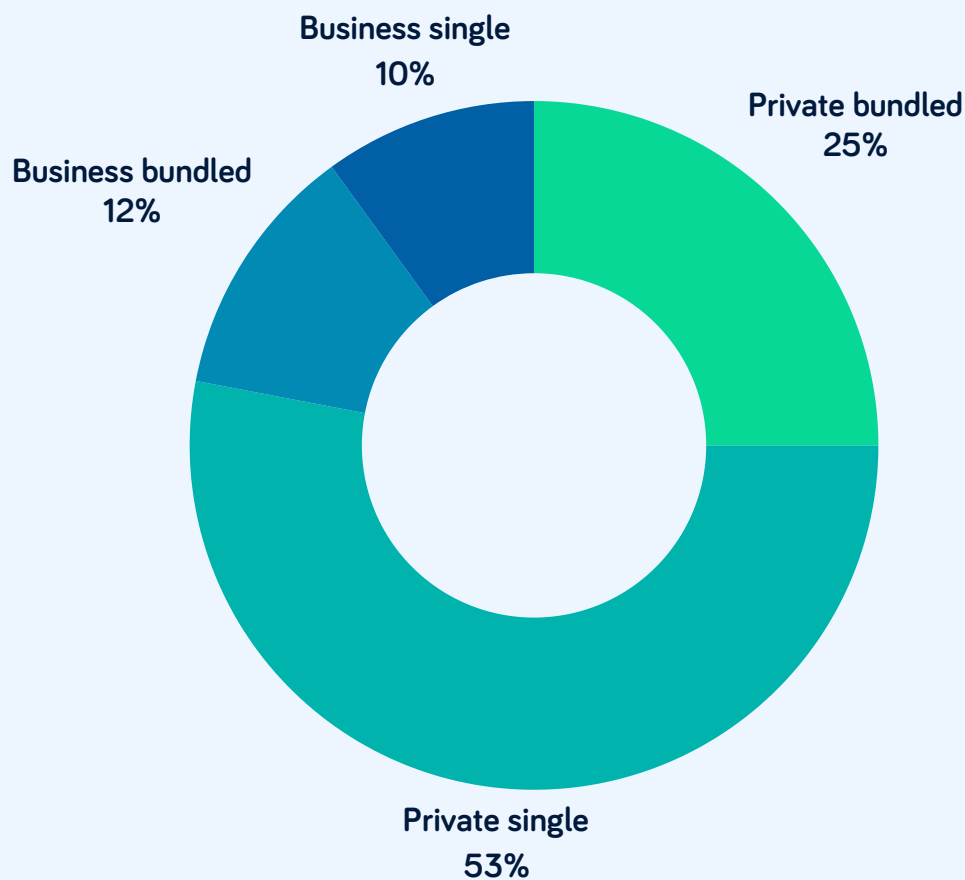
Figure 1



# How are the saved kilometres determined?

## The calculation model

To get an idea of the number of kilometres not driven thanks to Brenger, the transports have been divided into four subgroups: private bundled, private single, business bundled and business single. For each of these subgroups, we first calculate just how many kilometres would have been driven if an alternative were chosen. The total saved amount is then the sum of these four groups.





## Alternatives for consumers / private customers

As we move towards a greener future, several questions are interesting to us, including what people would have done if Brenger did not exist. This question was asked in our survey\* among private individuals, and the answers are presented below. When asked what they would have done if Brenger did not exist, respondents replied:

- 22.5% would have transported the product themselves using a car
- 33.5% would have transported the product themselves using a van
- 19.1% would have hired another transport company
- 18.5% would not have bought the product

## Business alternatives

For our business customers, the situation is slightly different. In our calculations, we have assumed that the percentage of people who drive themselves is 0, with a van 20% and that in 80% of the cases, another transport company would be hired. This is chosen because a company will not give up selling its product easily. If Brenger did not exist, then:

- 0% of them would choose to transport the items themselves with a car
- 20% would transport the items with a van,
- 80% would hire another transport company

\*Survey from 2021 with 18,000 respondents

\*\*Assumption based on conversations with Brenger's business customers.

# Good to know

**Numerous factors play a role in the calculations of the impact on CO<sub>2</sub> emissions.**

**Naturally, we take these into account.**

## **Weight**

Brenger couriers don't always drive directly from the pick-up location to the delivery location, so the product being transported travels some extra kilometres. The average weight of the Brenger couriers' vehicles is, therefore, higher than when no smart bundling route is applied. To account for this, all kilometres of Brenger couriers used in our calculations are therefore multiplied by an increase factor. This factor is 1.017 for single transports and 1.002 for bundled transports.

## **Traffic**

Our couriers also drive more frequently during rush hour traffic than private individuals who handle their own transportation. Since this results in 35% more fuel consumption (than if the product was transported during off-peak times), we multiplied the number of kilometres driven by 1.35.

## **Vehicle age**

Another factor is that a van used for a Brenger transport is, on average, older than a rental van. Rental companies often have relatively new vehicles that emit less CO<sub>2</sub>. On average, that is 87% of the emissions of a Brenger van. Therefore, the number of kilometres driven by people who have rented a van is multiplied by 0.87.





### **Kilometres saved**

To calculate the number of kilometres saved by Brenger, we must do the following: First, we calculate the number of kilometres driven by each of the above-mentioned alternatives. Then, we subtract the number of kilometres driven by Brenger. What remains is the number of kilometres saved thanks to Brenger.



### **Kilometres driven by alternatives**

To calculate the number of kilometres driven by the alternative transport solutions, we assume that a person who drives themselves drives the distance from pick-up to the delivery location twice (there and back). We also assume that another transport company would work much more efficiently because it also has several transports that can be combined. For this alternative, the distance from pick-up to the delivery location is multiplied by 1.3.



### **Kilometres because of Brenger**

Determining the number of kilometres driven by Brenger is a bit more complicated. This is because the total number of kilometres driven by Brenger is not equal to the total number of kilometres driven by Brenger couriers. The reason for this is that single transports are claimed by our couriers when they are already on the route, so the kilometres would have been driven anyway. This is especially true for single shipments. For bundled transports, it's a different story. In this case, the courier doesn't do any transports of their own during the route. The number of kilometres driven by Brenger for single transports is therefore multiplied by 0.65. For bundled transports, a multiplication factor of 0.95 is used.

# References

## **Extra weight and fuel consumption**

Natural resources Canada

[https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/oeef/pdf/transportation/fuel-efficient-technologies/autosmart\\_factsheet\\_16\\_e.pdf](https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/oeef/pdf/transportation/fuel-efficient-technologies/autosmart_factsheet_16_e.pdf)

## **CO2 emissions per fuel type**

Natural resources Canada

[https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/oeef/pdf/transportation/fuel-efficient-technologies/autosmart\\_factsheet\\_6\\_e.pdf](https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/oeef/pdf/transportation/fuel-efficient-technologies/autosmart_factsheet_6_e.pdf)

## **Average CO2 emissions for vehicles**

European Environment Agency

<https://www.eea.europa.eu/data-and-maps/indicators/average-co2-emissions-from-motor-vehicles/assessment-1#:~:text=The%20average%20van%20registered%20in,and%20size%20of%20the%20vehicles>

## **Extra fuel consumption for driving during rush hour**

Witpress

<https://www.witpress.com/Secure/elibrary/papers/UT97/UT97038FU.pdf>

## **CO2 emissions by road and rail traffic**

<https://www.cbs.nl/nl-nl/visualisaties/verkeer-en-vervoer/uitstoot-en-brandstofverbruik/uitstoot-vervoer-over-land>

CO2 uitstoot door vervoer over land

[CBS](#)

[Trees at the Vondelpark](#)

[The weight of an American fridge](#)

[Flight distance from Amsterdam to Bangkok](#)

[The weight of an elephant](#)

## **CO2 emissions per produced piece of furniture**

Wardrobe

Johny Bairstow, Energy Live News

<https://www.energylivenews.com/2019/09/09/could-the-real-enemy-of-climate-change-turn-out-to-be-furniture/>

Sofas

Johny Bairstow, Energy Live News

<https://www.energylivenews.com/2019/09/09/could-the-real-enemy-of-climate-change-turn-out-to-be-furniture/>

Michael Powell, Furniture Industry Research Association

<http://www.healthyworkstations.com/resources/Environment/FIRA.CarbonFootprint.pdf>

Tables

Robuust Maatwerk

<https://robuustmaatwerk.nl/antwoorden/#:~:text=Een%20goed%20beschermd%20en%20onderhouden%20tafel%20gaat%20minimaal%2020%20jaar%20mee>

Living Spaces

<https://www.livingspaces.com/inspiration/ideas-advice/guides/furniture-lifespan-guide-when-to-replace-your-furniture>

Chairs

Johny Bairstow, Energy Live News

<https://www.energylivenews.com/2019/09/09/could-the-real-enemy-of-climate-change-turn-out-to-be-furniture/>

Michael Powell, Furniture Industry Research Association -

<http://www.healthyworkstations.com/resources/Environment/FIRA.CarbonFootprint.pdf>

Beds

Michael Powell, Furniture Industry Research Association -

<http://www.healthyworkstations.com/resources/Environment/FIRA.CarbonFootprint.pdf>