

Outsourced transport

Data sharing between customers and contractors

Colophon

Guideline 15 - Outsourced transport
Data sharing between customers and contractors

Carbon Footprint in logistics

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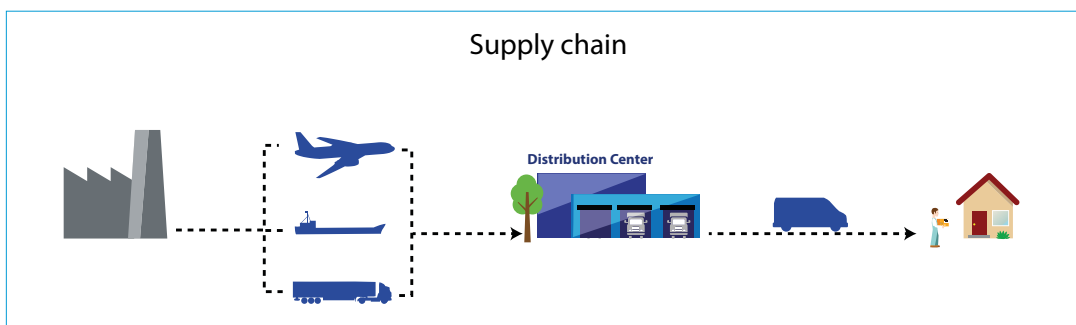
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Data sharing between customers and contractors

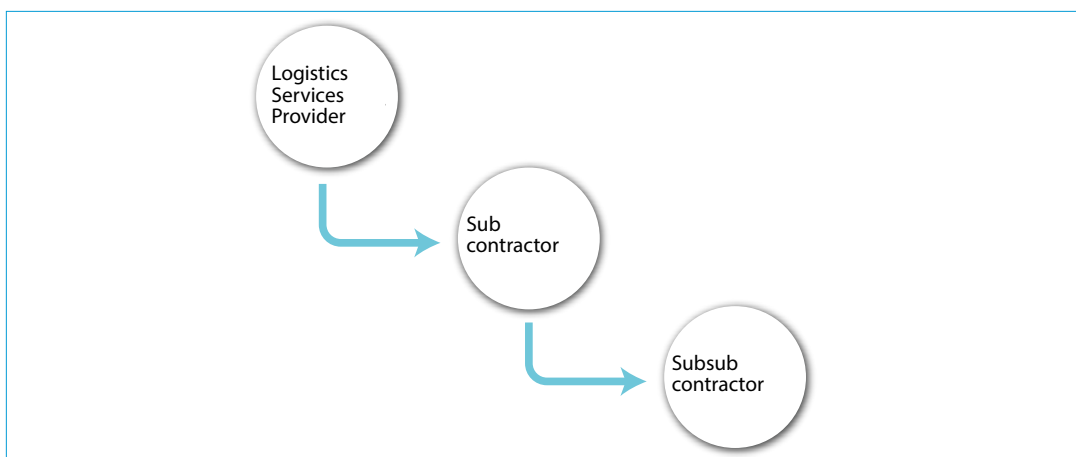
This guideline deals with the common situation in which a part of the logistics process is outsourced.

In practice, a shipper will often set up a supply chain and outsource significant elements of it. A supply chain handles the transport of cargo between production locations, warehouses and buyers, and comprises transport, storage and transshipment.



In some cases all elements are outsourced and in others only certain ones. Sometimes a logistics services provider or forwarding agent will be entrusted with the management of the chain, while in other situations the shipper will control the different elements directly.

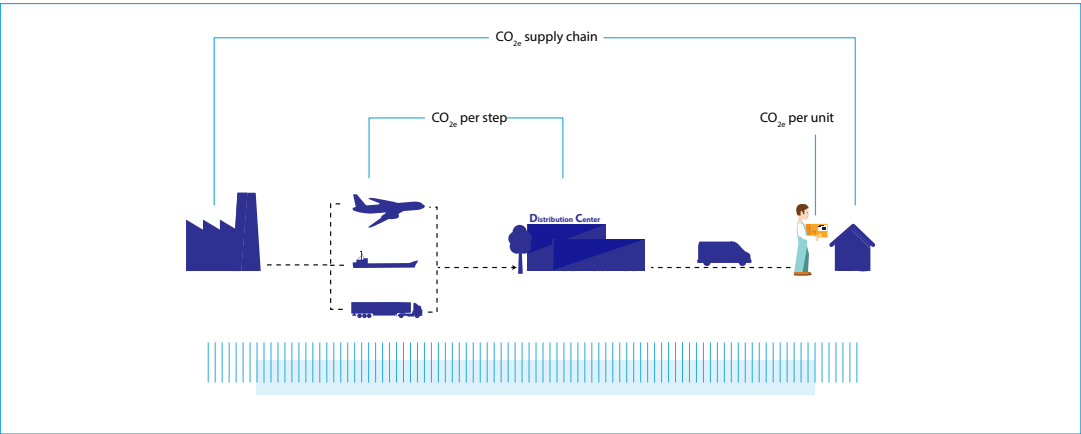
A large logistics services provider may also assign parts of the overall package to a third party (subsubcontractor), who in turn hires another party with a means of transport.



Logistics has developed into a particularly flexible and adaptive system that can transport cargo appropriately at low cost and with short lead times.

Allocating CO_{2e} emissions to your own cargo

For a shipper it is important to measure the 'carbon footprint' of the supply chain: how much CO_{2e} is emitted per unit of cargo? How much does each step contribute? How 'CO_{2e} efficient' is the supply chain?



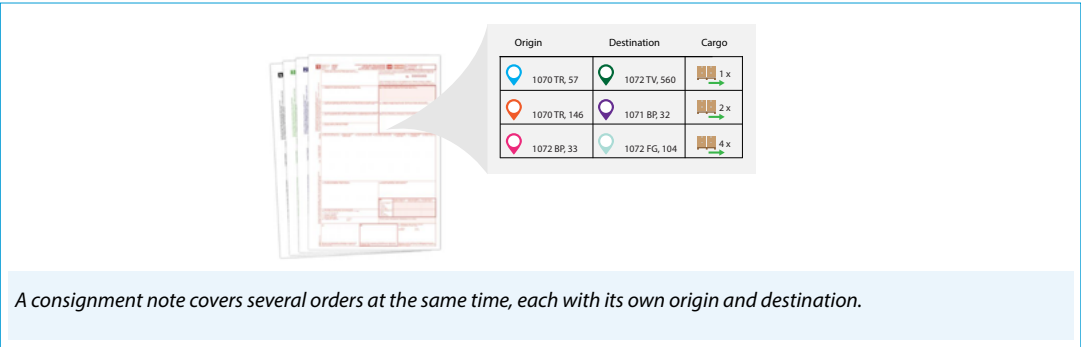
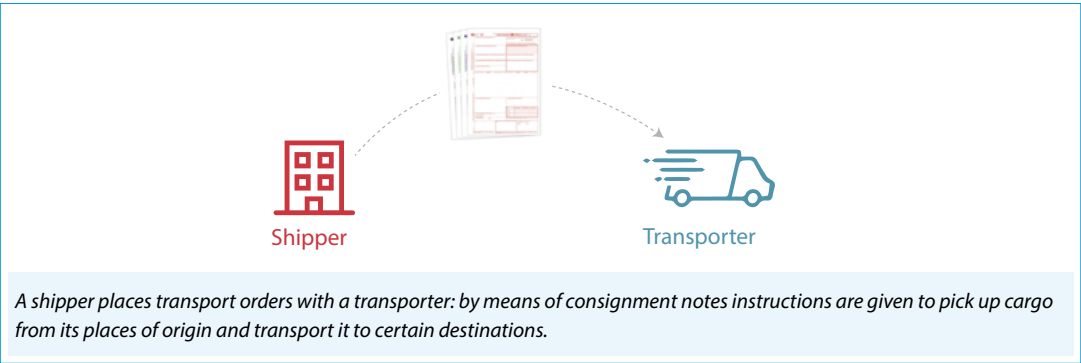
Measurement is the key to knowledge and improvement: the greater the level of detail with which this footprint can be analyzed, the more effectively actions can be planned to improve it. The shipper therefore needs information from the parties to whom the transport (or storage or transshipment) has been outsourced.

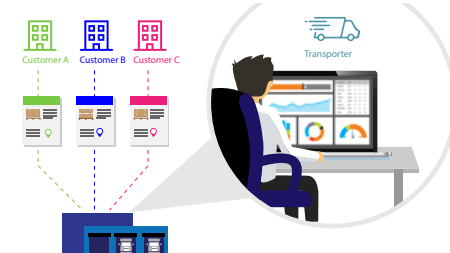
How can a logistics services provider who transports cargo for multiple customers simultaneously, for example, satisfy this demand from its customers for more information? And if this information is supplied, will that influence the commercial relationship and lead to further discussions about price?

In the text that follows we first provide a simple example, before examining the commercial effects of data sharing.

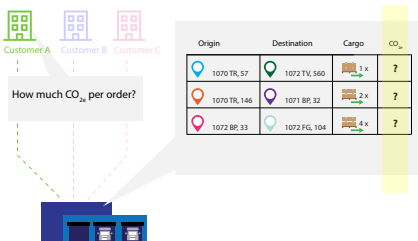
Sharing CO_{2e} information with a customer

Let's take a very simple situation.



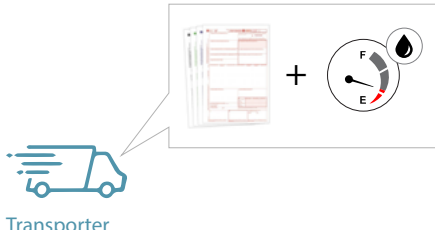


The transporter combines orders of multiple customers to ensure equipment is used as efficiently as possible and ensures that the orders are fulfilled on time.



Origin	Destination	Cargo	CO _{2e}
1070 TR, 57	1072 TV, 560	1 x	?
1070 TR, 146	1071 BP, 32	2 x	?
1072 BP, 33	1072 FG, 104	4 x	?


Now the shipper asks for information: what level of CO_{2e} emissions is associated with the transport for each element of a consignment note?



After the trip the transporter knows the transport orders that have been carried out and the amount of fuel consumed. That is all that is needed to allocate the CO_{2e} emissions to all orders.


1

Specific allocation data




2

Indicator for the relevant trips



3

Company or sector indicator



The transporter can decide how the customer's question is answered:

1. By copying and passing on the allocation data
2. By passing on the indicator for these trips
3. By passing on a company or sector indicator. The result becomes increasingly generalized from option 1 to option 3, but the customer can still use it for its calculations.

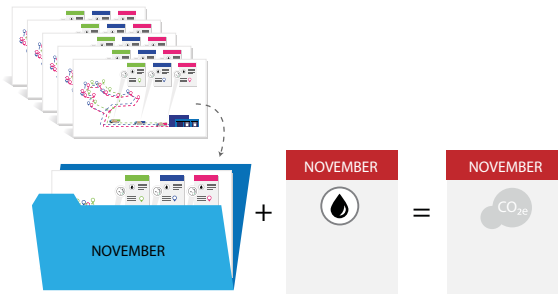
Customer A

1070 TR, 57	1072 TV, 560	1 x	1 x	
1070 TR, 146	1071 BP, 32	1 x		+
1072 BP, 33	1072 FG, 104		1 x	
1070 TR, 57	1070 TR, 57	1 x		+
1070 TR, 146	1070 TR, 146	1 x		+
1072 BP, 33	1072 BP, 33	2 x	3 x	

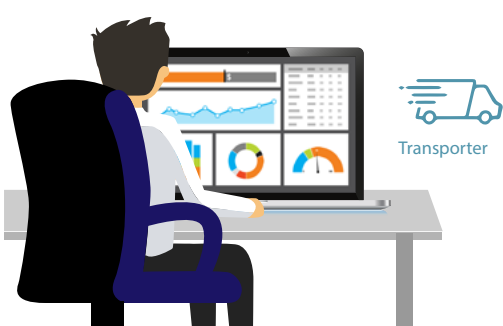
The first option is to use the details from the result of the allocation. From the complete allocation overview the transporter picks out only those lines that relate to the customer in question and sends these to the customer.



The second option is to pass on the indicator for these specific trips. In this case it is not the details that are shared, but the indicator that is calculated automatically during allocation.



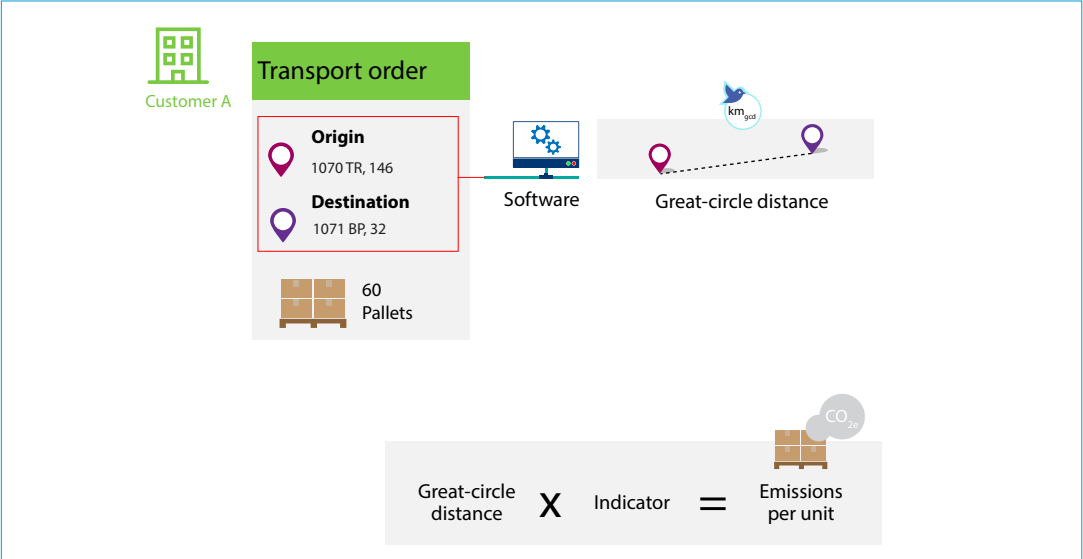
The third option is to pass on an average indicator (for the company or sector).



These data also give the transporter an insight itself into the average for all its transport orders. That means the transporter has a good insight into its own performance or is able to compare itself with its competitors.

If the transporter only shares this indicator, how can a customer work out the allocated emissions itself?

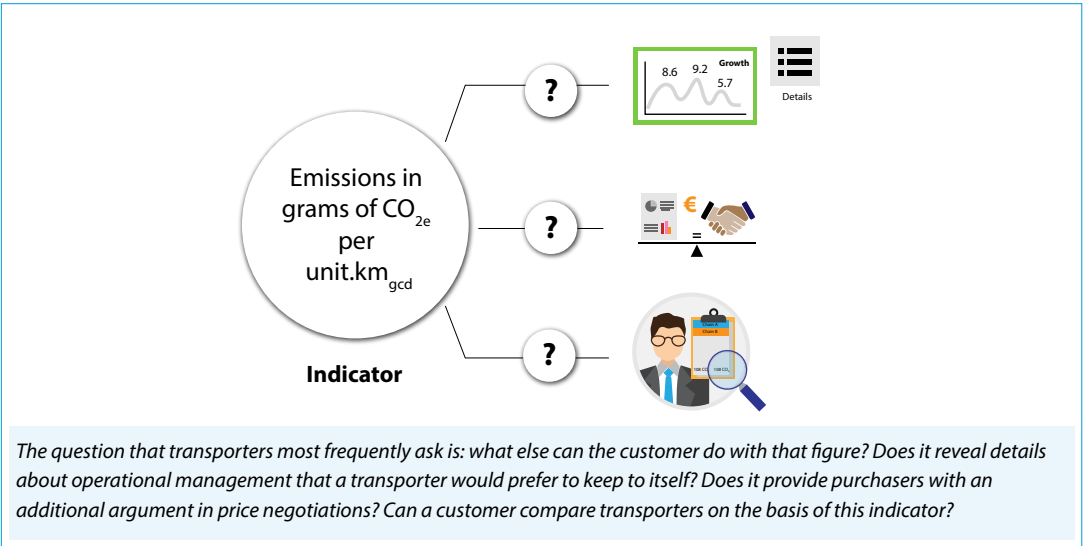
This is relatively simple, as with this kind of indicator (emissions/unit.km_{gcd}) it is not the route that is important, but only the origin and destination, and the quantity of cargo. These are data that the customer knows from its own orders.

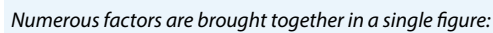
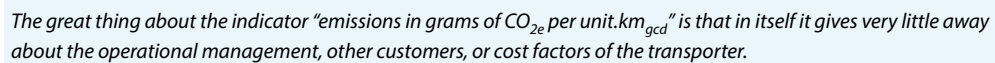


By taking the transport orders (quantity, origin and destination), calculating the great-circle distance between the origin and destination, and multiplying this by the indicator received, the emissions per unit are easily obtained. There is no need to know the route. This calculation will usually be performed by software. The more specific the indicator is, the more accurate the result.

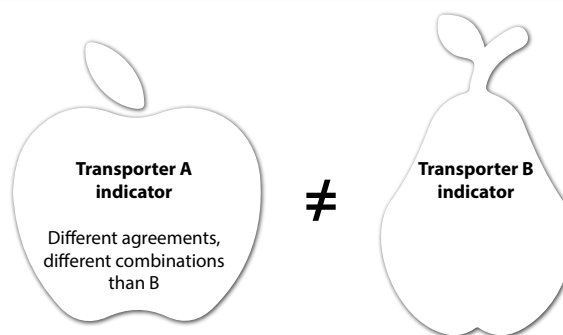
What does the indicator tell you about the details of the transporter’s operational management?

It has been demonstrated above that a customer can perform carbon footprinting using only an indicator received from the transporter: 'emissions in grams of CO_{2e} per unit.km_{gcd}'.

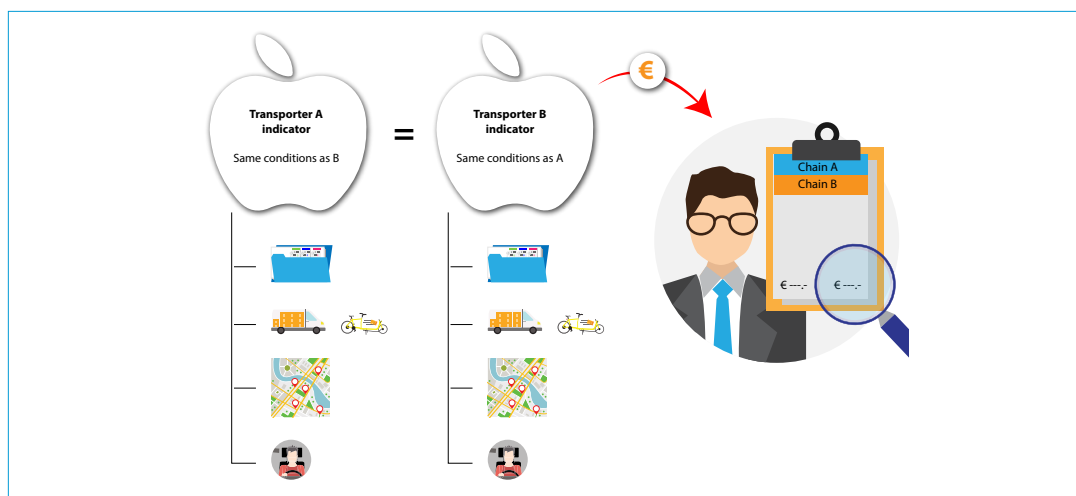




- The combination of cargo:
 - The combination of consignment notes for 1 or more customers, with separate quantities, origin/destination relationships and separate delivery conditions.
- The use of people and resources.
- The route plan, road conditions, volume of traffic.
- Driving behavior.



If two indicators are compared, the first question is therefore whether all these factors were the same. Take the influence of delivery times, for example: if the customer schedules deliveries at unfortunate times for the same combination of cargo, the indicator will quickly increase, as the equipment can be used less efficiently. The choices made by the customer are also reflected in the indicator: the indicator tells you something about the overall combination.

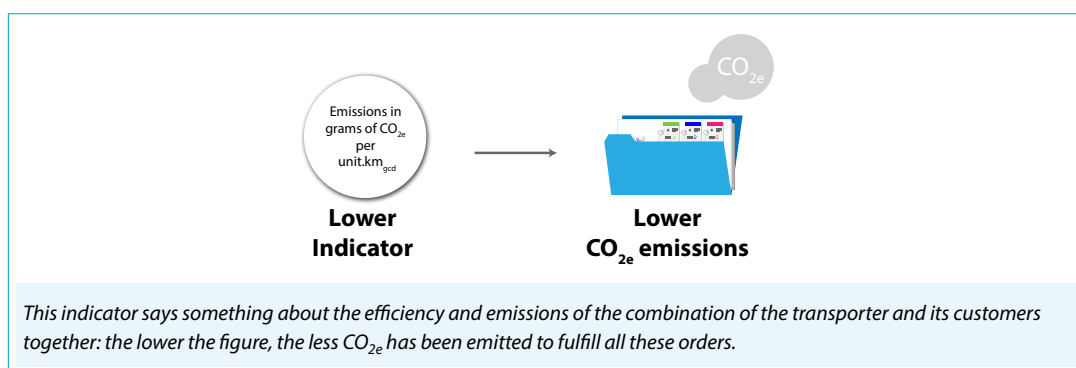


Only if the combinations of cargo, the routes and the conditions are identical do two indicators provide a direct insight into the differences between transporters. These situations are exceptions, however: in such a case it is more likely that price will be relied on for comparisons than these calculated indicators.

In all other cases two different figures do not tell you whether the transporter with the lower indicator is doing 'better' than the one with the higher indicator. This depends on various factors.

Quotations and tenders

If CO_{2e} emissions are important for customers, this will be taken into account when quotations are compared. If transporters regularly perform their own carbon footprinting measurements for their own company, this calculation will result in their own indicator.

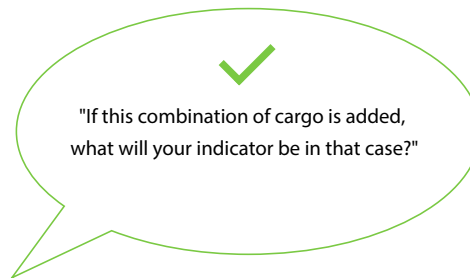


The wrong question:

"Let us know your current indicator and we will use this as a basis for comparison, alongside price."

A new customer now asks for a quotation to transport a certain combination of cargo to multiple parties. Past results are no guarantee for the future. In practice, taking on a new customer can unfortunately sometimes lead to an imbalance in the transporter's network. An imbalance means traveling more kilometers with less cargo or no cargo, which pushes up the average emissions. The transporter's indicator therefore increases, as do the costs. The reverse can also happen: additional cargo eliminates an imbalance and saves costs.

The right question:



For a transporter who wants to perform such a calculation, carbon footprinting works just as well, but in this case in a predictive way. If planning software is used to simulate what the trips and consumption will be when the new customer is added to the existing combination of cargo, the carbon footprint can be immediately calculated. In practice, the calculation will be performed for a number of variants by the transporter. In this way it will assess its chances of receiving the order or think about what could be done to achieve a better result.

Conversely, it may be interesting for a customer to take a look at its entire network: perhaps there are even more opportunities to eliminate empty kilometers and imbalances in collaboration with transporters. Carbon footprinting provides a great deal of useful information that can improve competitiveness.

Carbon Footprint guidelines

0. Measuring, calculating, allocating and reducing



1. Allocating



2. Cargo



3. Origin and destination



4. Fuel



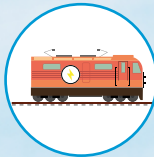
5. Inland shipping - containers



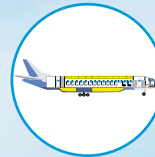
6. Inland shipping - bulk



7. Freight transport by rail



8. Air freight



9. Maritime and short sea shipping



10. Transshipment



11. Storage



12. Parcel transport and post



13. General road transport



14. Perishable and temperature controlled



15. Outsourced transport



16. Repositioning and empty kilometers



17. (Inter)national supply chains



18. Benchmarking



19. Intermediaries and platforms



20. Auditors and accountants



21. Data quality



22. The relationship between social goals and corporate goals

