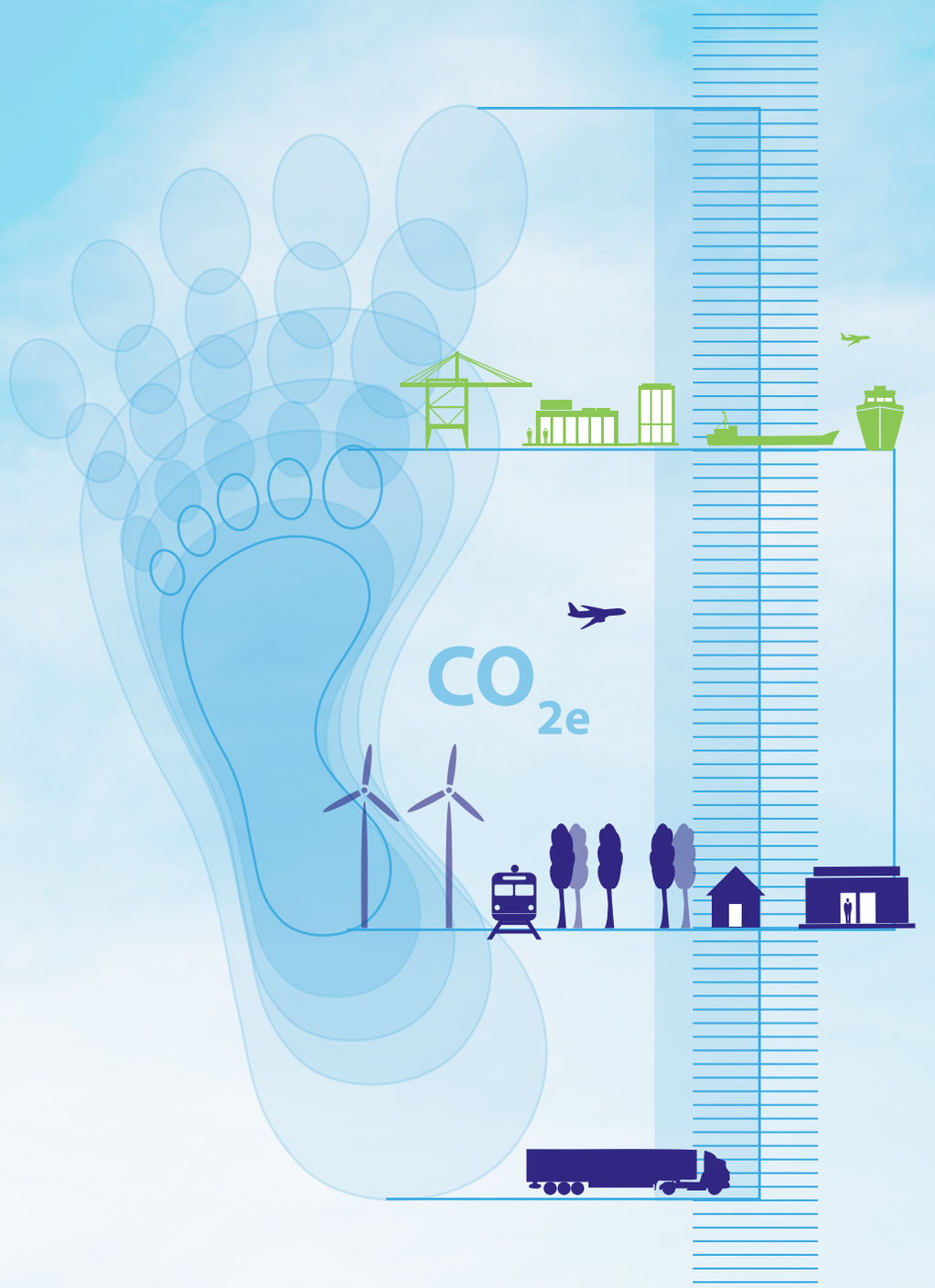
GUIDELINE 16 - CARBON FOOTPRINT IN LOGISTICS



Repositioning and empty kilometers

Allocation of empty trips over land or water

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Allocation of empty trips over land or water

Carbon Footprint in logistics

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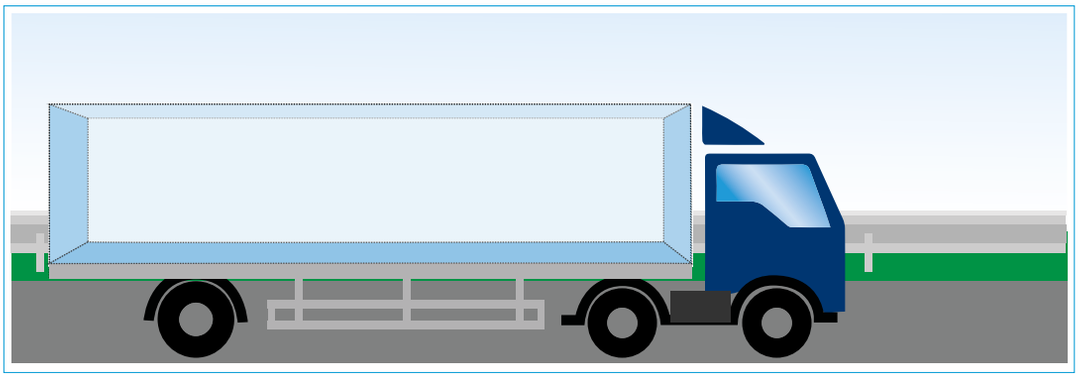
Repositioning and empty kilometers

Allocation of empty trips over land or water

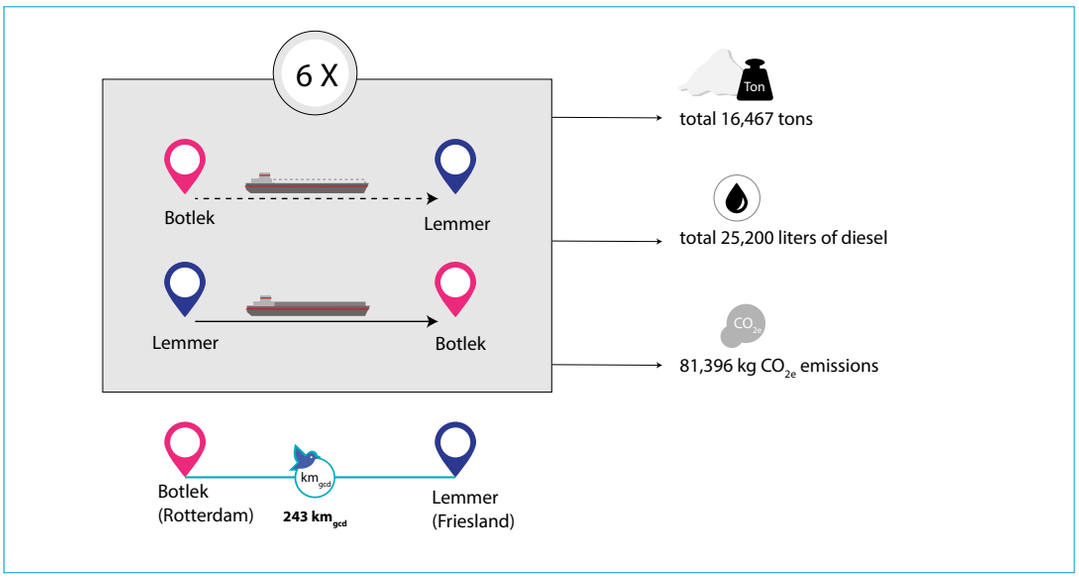
This guideline deals with the allocation of the emissions from 'empty kilometers' that arise when vehicles or vessels have unloaded a cargo and then go to pick up a new cargo in another location for a different customer. The COFRET methodology is clear when it comes to these emissions: they should be spread across all orders over a period. In practice, some parties object to this approach. This guideline focuses on the background to this discussion.

In the case of bulk transport by road, inland waterway or rail, or FTL (Full-Truck-Load) transportation by road, driving[1] or sailing when empty is almost inevitable from time to time.



Example

Take the example of an inland vessel that transports salt from Friesland to Rotterdam and does so repeatedly. There is usually no cargo on the return journey and the vessel sails back to the loading point empty.



In this case it is clear that the customer has to allocate all the fuel, including that consumed on the empty return journey, to the cargo.

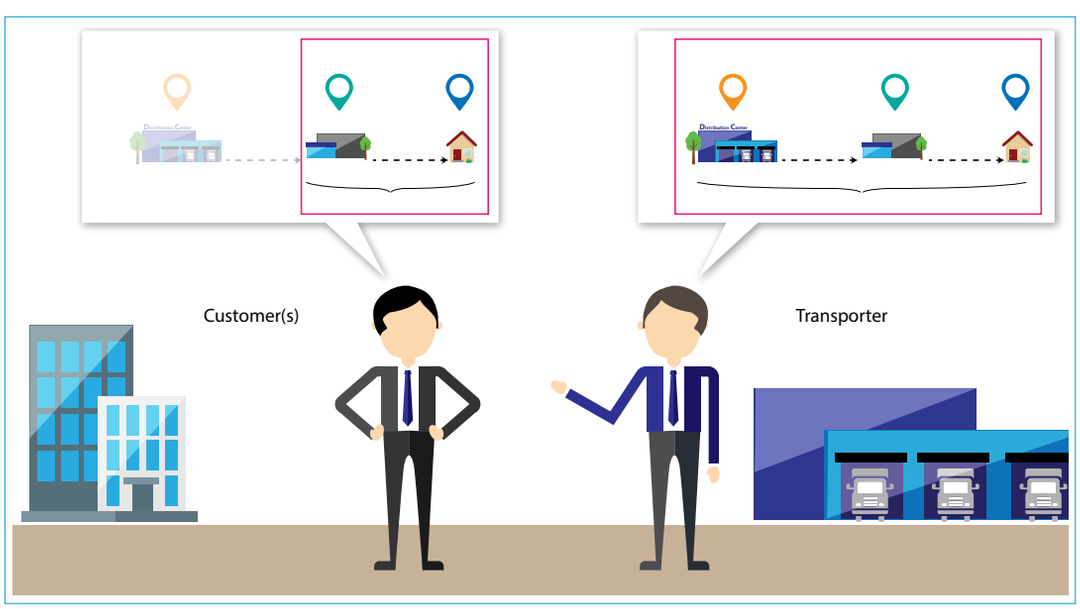
1 *for simplicity, in the rest of the text we will talk about driving only, although this should be understood to cover transport both by road and by water.*

Example with multiple customers

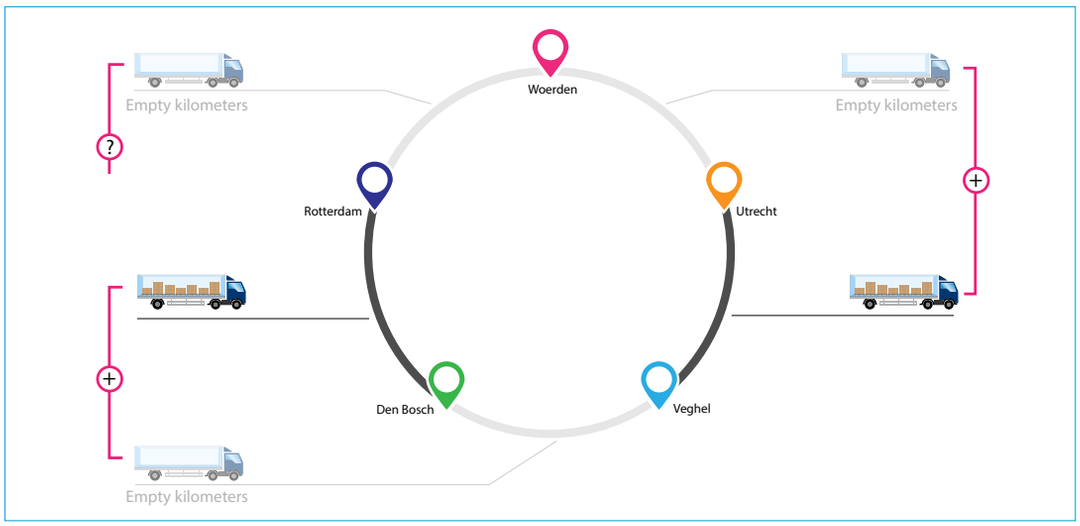
The situation is different if multiple customers are served one after the other. Example: truck starts in Woerden, drives to Utrecht, fills up with soft drinks in Utrecht, transports these to Veghel, travels empty to Den Bosch to pick up beer, carries its full load to Rotterdam and then returns to Woerden.

In this case there are two customers involved: the one who has soft drinks transported from Utrecht to Veghel and the second one who has beer transported from Den Bosch to Rotterdam.

The truck is driven empty for a certain number of kilometers: from Woerden to Utrecht, from Veghel to Den Bosch, and from Rotterdam to Woerden. The question is how should the emissions from these empty kilometers be allocated to the orders?



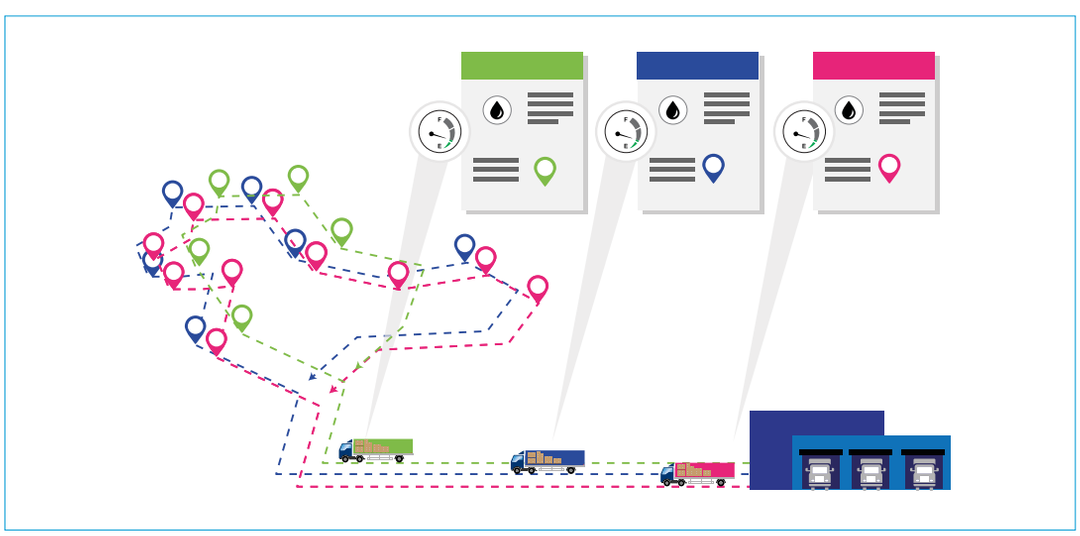
This question is often the source of much discussion between the transporter and one or more customers. Some customers say that they only want the emissions from the laden kilometers to be allocated to the cargo. Many people think this is oversimplifying it: after all, the truck has to travel empty to the pick-up location first.



Another method is to include the emissions from these kilometers driven to reach the pick-up location. That may seem like a neat solution, but in this case the final (empty) trip back to the transporter's base is not taken into account. Furthermore, many shippers say they have no influence over the kilometers traveled to the pick-up location. Transporters, on the other hand, say that shippers do have some influence over this. There is therefore plenty to discuss.

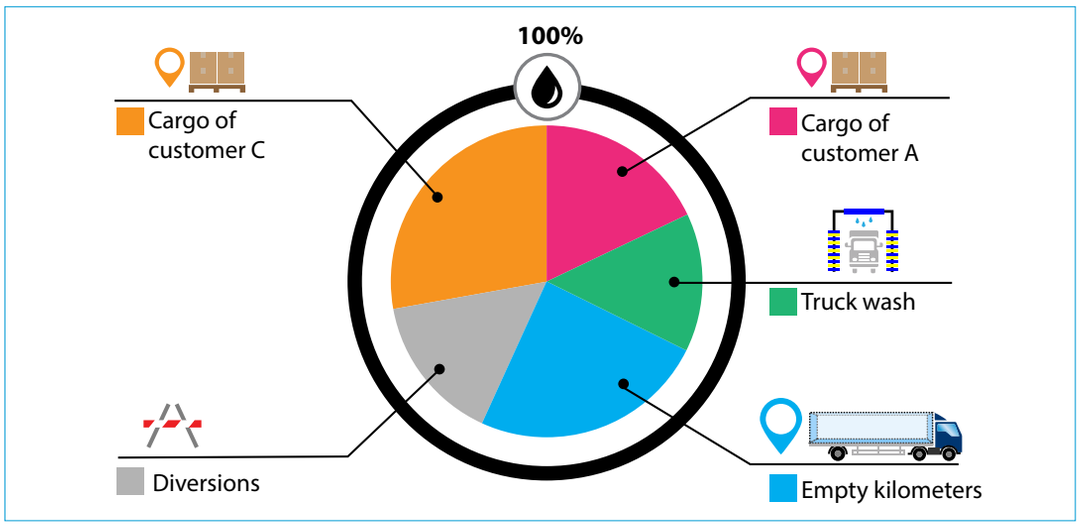
What about distributing all the emissions across the whole of the cargo in accordance with the COFRET method? The advantage of this approach is that no emissions are unaccounted for and it is entirely in keeping with the method. However, that does not mean discussions are a thing of the past, especially if CO_{2e} will cost money. But as is the case with costs and revenues, the emissions have to be allocated somewhere.

There are two variants for distributing emissions that are encountered in practice.



1. Distribution of all emissions across all cargo per day or week and per vehicle, in accordance with the weighted COFRET method. All emissions are included in the allocation. Methodologically speaking, this is the purest method.

2. The emissions from repositioning kilometers traveled between customers (and not therefore within orders for the same customer) are kept separate and are not allocated to the cargo. This is not correct according to COFRET, but it makes the issue clearly visible.



Advocates of this method say that it brings into much sharper focus where the losses resulting from a particular combination of customers lie.

The disadvantage is that the allocation of emissions to cargo for each customer is too optimistic and the method does not comply with the standard.

In this guideline preference is given to use of the COFRET method.

Carbon Footprint guidelines

0. Measuring, calculating, allocating and reducing

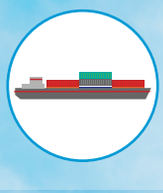
1. Allocating

2. Cargo

3. Origin and destination

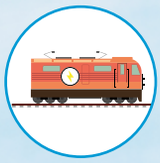
4. Fuel

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 ransport

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

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