Belgisch Instituut voor
postdiensten en telecommunicatie

Decision of the BIPT Council of 14 January 2025 on the methodology regarding sustainability reporting for Belgian postal services providers

Belgian Institute for Postal Services and Telecommunications
Boulevard Albert II 32. Box 10 | 1000 Brussels
T +32 2 226 88 88 | **F** +32 2 226 88 77 | **www.bipt.be**

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1. Introduction

1. The Royal Decree of 14 December 2023 (on sustainability) amending the Royal Decree of 14 March 2022, hereinafter 'the RD', was published in the Belgian Official Journal[1] at the end of 2023. The following imposes upon the postal services providers (counting at least 250 employees, subcontractors and temporary workers included, over the past year) the obligation to collect certain information within the context of sustainability in the parcel delivery services segment. Article 8/1 of the RD reads:

> *" Art. 8/1. §1 The postal services provider who, during the past calendar year, employed at least two hundred and fifty people, including subcontractors and temporary workers, in the context of providing parcel delivery services, shall collect at least the following information:*
>
> *1° for each method of delivery, the average of the emissions of CO_2 equivalents generated by the collection, sorting, transport and distribution of postal items, measured in grams per volume unit determined by the Institute, distinguishing between the following emissions:*
>
> - *direct emissions from sources owned or managed by the undertaking;*
> - *indirect emissions linked to energy consumption; and;*
> - *other indirect emissions generated by outsourced activities.*
>
> *2° for each method of delivery and for the different types of emissions referred to in the provision under 1°, the average of CO_2 equivalent emissions, measured in grams, per volume unit defined by the Institute, generated only during the distribution phase in the sense of Article 2, 6° of the Act;*
>
> *3° for each method of delivery, the average number of vehicle kilometres per parcel during the distribution phase;*
>
> *4° the percentage of vehicle kilometres covered by zero-emission vehicles during the distribution stage;*
>
> *5° possible accession to a sectoral sustainability charter;*
>
> *6° the percentage of renewable energy used in their buildings;*
>
> *7° the percentage of electric vehicles and zero-emission vehicles operated within the fleet;*
>
> *The delivery methods referred to in paragraph 1, the provisions under 1° to 3°, correspond to the parcel delivery options proposed by postal services providers and include at least the different delivery times and delivery points.*
>
> *The postal services providers referred to in paragraph 1 shall measure the data referred to in paragraph 1 in accordance with a method laid down by the Institute and under the supervision of a competent and independent audit body designated by the Institute.*

[1] https://www.ejustice.just.fgov.be/mopdf/2023/12/29_1.pdf#Page797

2. The BIPT has to define a method for the first 2 indicators from the above-mentioned Article 8/1, §1, subsection one, 1° and 2° (average emissions in CO_2 equivalents throughout the entire chain as well as specifically for the distribution phase). To that effect, the BIPT appealed to the expertise of the VUB in this matter (professor Koen Mommens in casu). Attached to this decision, the methodology report can be found.

3. Other indicators are more obvious and do not require a specifically developed methodology:

   3.1. For instance the average number of vehicle kilometres per parcel in the distribution phase will simply be defined as the number of kilometres travelled during the distribution phase divided by the number of parcels delivered;

   3.2. And the calculation of the percentage of renewable energy used in the buildings as well as the percentage of electric vehicles and zero-emission vehicles active within the fleet speaks for itself: namely, by contrasting the exposed subgroup with the total. At most, we should add that the fleet excludes commuter journeys by staff as well as company cars (as the methodology report moreover also clarifies).

2. Retroacts

4. The postal services providers have been closely involved throughout the entire development process of this methodology. Firstly during a kick-off meeting on 22 February 2024, clarifying the legislative text as well as the next steps. Subsequently, following the designation of the VUB for the development of the methodology, meetings as well as written questionnaires took place on 19 April and 9 July 2024 (with additional individual interviews where necessary) on the methods already used and the feasibility of certain paths.

5. Afterwards, feedback could be given on a preliminary version of the tool (July 2024). By the end of the process there was a public consultation (from 22 October up until 26 November 2024), including where needed, additional calls to answer specific questions.

3. Methodology and implementation

6. Consequently, the BIPT aimed to be able to propose a concrete methodology to the postal services providers, aligned with international standards and feasible at the same time (a minimal administrative burden), as well as a methodology that will produce sufficiently accurate and mutually and over time comparable results. This should also allow to verify the CO_2 equivalents (calculated and) communicated by the postal services providers annually.

7. The methodology set out in the report attached is based on four pillars. Firstly, the CO_2 values to be calculated and communicated by the postal service providers. Then the required input values (from energy used, volume, logistic facilities and delivery modes), throughout the entire chain as well as specifically the last mile. Finally, there are the calculation values, the GLEC Framework – which is based on ISO 14 083 – provides emission values as a reference for logistic activities. All this allows for the verification of the reported CO_2 values, since the results of the calculation by postal service providers should be in line with the results of the calculation tool described in the report.

8. Furthermore, as of 2025, based on the methodology developed, the postal services providers shall be required not only to publish the average emissions in CO_2 equivalents as stipulated in Article 8/1, §1, subsection one, 1° and 2° on their own website but they will also have to submit these to the BIPT. In principle, the other information described and aimed at in Article 8/1, §1, subsection one, 3° to 7°, of the RD already has to be published on the website of the postal services providers involved today (and have to be communicated to the BIPT as well). In this regard, the BIPT shall launch an official verification as of 2025.

9. The BIPT shall include the annual questionnaire in the information gathering already in place with regard to the postal observatory. Specific tabs with regard to sustainability shall be added to this existing Excel. The usual timing as regards the observatory shall apply here as well, the questionnaire being sent in March of each year and the deadline for submission being set at the beginning of June. Based on these numbers the auditing body designated by the BIPT, as cited above in paragraph 1, can carry out the audit mission and additional questions can be asked with regard to, among other things, the underlying numbers, calculations or assumptions by the postal services provider or his subcontractors.

4. Appeal procedures.

10. According to Article 2, § 1, of the Act of 17 January 2003 on the appeals and the settling of lawsuits following the Act of 17 January 2003 on the status of the regulator of the Belgian postal and telecommunications sectors you have the possibility to lodge an appeal with the Market Court, Poelaertplein 1, 1000 Brussels. Under penalty of inadmissibility pronounced ex officio the appeal shall be lodged by means of a signed application, accompanied by the contested decision, filed with the court registry of the Brussels Court of Appeal within sixty days following the notification of the decision or in the absence of a notification, following the publication of the decision or in the absence of a publication, following the inspection of the decision.

11. Under penalty of nullity the appeal shall contain the statements required by Article 2, § 2, of the Act of 17 January 2003 on the appeals and the settling of lawsuits following the Act of 17 January 2003 on the status of the regulator of the Belgian postal and telecommunications sectors. If the appeal contains elements that you consider to be confidential, you need to explicitly indicate this and, under penalty of nullity, submit a non-confidential version of that appeal. The Institute publishes the appeal notified by the court registry on its website. All parties interested can intervene in the case within thirty days following this publication.

Bernardo Herman
Member of the Council

Peggy Valcke
Member of the Council

Stefaan Vyverman
Member of the Council

Michel Van Bellinghen
Chairman of the Council

5. Annex: METHODOLOGY REPORT BY THE VUB REGARDING THE SUSTAINABILITY REPORTING FOR BELGIAN POSTAL SERVICES PROVIDERS

METHODOLOGY FOR SUSTAINABILITY REPORTING FOR BELGIAN POSTAL SERVICE PROVIDERS

Koen Mommens

Mobilise - Vrije Universiteit Brussel

Title	The development of a methodology for sustainability reporting for Belgian postal operators
Version	2.0 – December 2024
Contact details Contracting Authority	Belgian Institute for Postal services and Telecommunications Boulevard du Roi Albert II, 32 box 10 1000 Brussels
Author	Koen Mommens Vrije Universiteit Brussel, Pleinlaan 2 at 1050 Brussels koen.mommens@vub.be BIPT stijn.braes@bipt.be

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1 Introduction

1.1 Context

According to the Royal Decree of 14 December 2023 (amending the Royal Decree of 14 March 2022), postal service providers – with at least 250 employees including subcontractors and temporary workers over the past year – are obliged to collect information in the context of sustainability. This information includes:

1. *for each method of delivery, the average of the emissions of CO_2 equivalents generated by the collection, sorting, transport and distribution of postal items, measured in grams per volume unit determined by the Institute, distinguishing between the following emissions:*
    - *direct emissions from sources owned or managed by the undertaking;*
    - *indirect emissions linked to energy consumption; and;*
    - *other indirect emissions generated by outsourced activities.*
2. *for each method of delivery and for the different types of emissions referred to in the provision under 1°, the average of CO_2 equivalent emissions, measured in grams, per volume unit defined by the Institute, generated only during the distribution phase in the sense of Article 2, 6° of the Act;*
3. *for each method of delivery, the average number of vehicle kilometres per parcel during the distribution phase;*
4. *the percentage of vehicle kilometres covered by zero-emission vehicles during the distribution stage;*
5. *possible accession to a sectoral sustainability charter;*
6. *the percentage of renewable energy used in their buildings;*
7. *the percentage of electric vehicles and zero-emission vehicles operated within the fleet;*

It is not unimportant to take into account the follow-up of the Royal Decree, namely;

> *The delivery methods referred to in paragraph 1, the provisions under 1° to 3°, correspond to the parcel delivery options proposed by postal service providers and include at least the different delivery times and delivery points.*
>
> *The postal service providers referred to in paragraph 1 shall measure the data referred to in paragraph 1 in accordance with a method laid down by the Institute and under the supervision of a competent and independent audit body designated by the Institute.*

The objective of this study is to develop, on behalf of and in cooperation with the BIPT, a methodology that allows the calculation of the emission indicators described above, so that the BIPT is able to validate the numbers obtained from the operators. More in particular, this report describes the following deliverables:

- A method for calculating the average emissions in CO_2 equivalents for each delivery method generated by the collection, sorting, transport and distribution of postal items. This regards both direct and indirect emissions.

- A method for calculating the average emissions in CO_2 equivalents for each delivery method generated during the distribution phase. Here as well, it concerns both direct and indirect emissions.
- Provide possible alternative benchmarks, in addition to those of Article 8, § 1, 3° to 7° included, which could provide useful insights without imposing a heavy administrative burden. For example, the proportion of parcels delivered with electric vehicles, cargo bikes or regular bicycles (which is already being assessed by the BIPT within the framework of the annual observatory).

2 Method of calculation

2.1 Objective

The calculation tool quantifies CO_2 emissions[1] for postal service providers with at least 250 employees including subcontractors and temporary workers in the past year.

The purpose of the calculation tool is to **verify and validate** the reporting the above postal service providers have to deliver to the BIPT according to the Royal Decree of 14 December 2023 (amending the Royal Decree of 14 March 2022). The results of the calculation tool should therefore also be interpreted as such. For the calculation tool produces a scientifically substantiated CO_2 emission, validated by the postal services for the various articles of the RD.

The calculation tool is the result of several consultations with the postal service providers (ending with a public consultation), during which the feasibility was also assessed. The calculation tool works according to the 'common denominator' principle, so that all postal service providers should be able to provide the requested data for the calculation tool to the BIPT without an excessive administrative burden.

The calculation tool shall meet the following conditions:

- The methodology is feasible for the postal service providers so that they are able to collect the requested data without an excessive administrative burden.
- The methodology is accurate so that the information collected is representative and can be used over time to allow comparative analysis.
- The methodology is in line with existing international standards. It is based on ISO standard 14 083 [2] and aligned with the GLEC Framework[3]. Together they form the basis for the European Sustainability Reporting Standards (ESRS), section E of the Corporate Sustainability Reporting Directive (CSRD[4]). After all, several operators are active internationally.
- The methodology is supported and assessed against the input of the postal service providers concerned through online meetings (kick-off on 22 February 2024 and next on 19 April and 9 July 2024 with additional individual calls where necessary), surveys into methodology and

[1] In CO_2 equivalents: a measure of the effect of different greenhouse gases on the climate. By converting different emissions into the equivalent amount of carbon dioxide (CO_2), their effects can be compared.
[2] https://www.iso.org/standard/78864.html#:~:text=78864-,ISO%2014083%3A2023%20Greenhouse%20gases%20%E2%80%94%20Quantification%20and%20reporting%20of%20greenhouse,arising%20from%20transport%20chain%20operations
[3] https://www.smartfreightcentre.org/en/our-programs/global-logistics-emissions-council/calculate-report-glec-framework/
[4] https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en

feasibility (April/May 2024) as well as comments on a preliminary version of the tool (July 2024) and a final public consultation (from 22 October to 26 November 2024).

However, postal service providers themselves have more detailed data allowing for a more detailed CO_2 emissions calculation at parcel level. **Postal service providers should therefore collect, calculate and yearly report the various elements of the Royal Decree**. These should be considered as superior (for the sake of more detailed input data). However, the results of the calculation by postal service providers should be in line with the results of the calculation tool described in this report.

2.2 Manual

The calculation tool was created in Excel. Excel is accessible and many users of postal services, the BIPT and beyond are familiar with it. The tool is encrypted so that no changes can be made to the formulas (underlying calculation module) and questions. The BIPT and VUB Mobilise have the access to update the Excel tool where necessary.

The calculation tool (Excel) contains six additional tabs.

1. The first tab contains the cover page with all the useful and required basic information.
2. The second tab contains the required input values to be entered annually by the BIPT based on the CO_2 equivalents communicated by the operators. These cells are marked in colour and in the next cell the answer possibilities are explained. A value must be specified for all cells indicated in yellow. In some cases this will be '0'.
3. The third sheet contains the required input values to be specified by the operator for the broad scope – element 1° of the RD. Here as well, the required cells are marked in colour and in the next cell the answer possibilities are explained. If a cell is marked yellow and does not apply to the postal service provider, the latter should enter the value zero (0).
4. Tab four contains the same exercise for the distribution phase – element 2° of the RD. The cells should be treated in the same way as in the previous argument.
5. The fifth tab describes the assumptions. These are also included in this document. This tab cannot be customized.
6. The sixth tab contains the calculation values used. Again, this tab cannot be customized, but may require an update in the future. The calculation is based on ISO standard 14 083 and aligned with the RD. The ISO standard was chosen by consensus by the operators and is also the basis for GLEC and European initiatives regarding CO_2 calculation and reporting in the sector.
7. Finally, the seventh tab contains the results of the validation exercise.

Below, the tabs are overlaid individually in more detail, except for the front (tab) sheet.

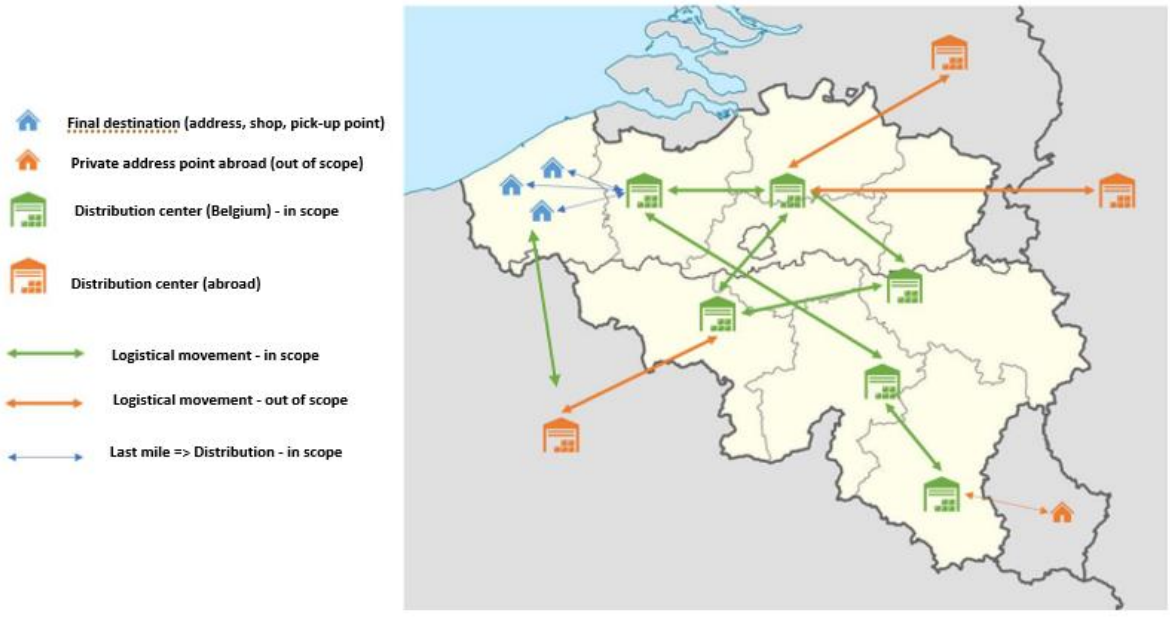
Tab 5: ASSUMPTIONS

- **Delivery methods**: The delivery methods are defined in the RD as "*the parcel delivery options proposed by postal service providers including at least the different delivery times and delivery points*." Following the research phase, carried out by VUB Mobilise and through multiple consultations with the operators, 6 delivery methods have been selected, which are described below:
    - **Private address point**: a final destination that is a home address in the case of B2C and a business location in the case of B2B.

- **Manned collection point**: a final destination that serves as a collection point for the customer, is manned and is part of an operator's network, whether or not under its own management.
- **Unmanned collection point**: a final destination that serves as a collection point for the customer, is unmanned (e.g. parcel locker), and is part of an operator's network, whether or not under its own management.
- **Shops**: A final destination that serves as a collection point for the customer, is manned and is part of a retailer's network and not of an operator's network.
- **Express delivery**: a delivery carried out within 4 hours of the order being made, regardless of the final destinations above.
- **Sizeable delivery**: a delivery that, because of the size of the parcel, has to meet special requirements (two-man delivery, etc.), regardless of the final destination.

- **Volume unit**: there are three volume units that can be used, being weight (in kilograms), volume (in m^3) and parcels which can be interpreted as one contiguous packaged good. Depending on the size of the parcel, there are special delivery requirements (e.g. two-man delivery). Depending on the size, it is also more desirable to report for one of the above volume units. Parcels have been chosen as the volume unit. The impact of sizeable deliveries is mitigated by including them as a means of delivery.
- **Average emissions**: the average is achieved by dividing the total CO_2 emissions of a calendar year by the total volume expressed in the above volume unit (parcel).
- **Limitation (1)**: the RD mentions 'the collection, sorting, transport and distribution'. Following the consultation of the operators and in accordance with the BIPT, this is limited to: (1) transport for the collection of postal parcels including collection at the senders, (2) sorting and other logistic activities in sorting centres, distribution centres, micro-hubs and delivery centres, (3) transport between the previous logistic facilities and (4) transport for the final delivery (last mile) of the postal parcels. The latter is hereinafter referred to as the distribution phase.

Figure 1. Limitation (adaptation of DHL figure)



- **Limitation (2)**: the following elements shall not be included in the calculation tool: (1) all transport and logistic activities associated with the parcel carried out on continents other than Europe, (2) all international transport between distribution centres and/or gateways (airports, ports). Logistic activities in facilities outside Belgium are included only if they are responsible for the provision of postal services within the Belgian territory. (3) consumer movements for parcel dispatch and collection, (4) energy consumption at final destinations (manned, unmanned collection points and shops), (5) waste and packaging (workflows) and (6) shuttle journeys of personnel and commercial vehicles.
- **Distribution phase**: the distribution phase is defined, after consultation with the operators and the BIPT, as the last mile or in other words the run/transport between the last logistic facility in the distribution chain and the final destination, as previously defined (private address point, manned collection point, unmanned collection point or shops). The latter could be a micro-hub or a city hub or a large distribution centre that might itself be located outside the Belgian territory.
- **CO_2 equivalent**: in addition to CO_2, other greenhouse gases are also included. These are nitrous oxide (N_2O) and methane (CH_4). In order to add up the impact of the different greenhouse gases, the emission figures are converted into CO_2 equivalents. The conversion is based on the Global Warming Potential (GWP) – which is the extent to which a gas contributes to the greenhouse effect.
- **Scopes**: the tool follows the itemization of the scopes as defined in reporting; where scope 1 represents the emissions generated by own vehicles (tank-to-wheel), scope 2 the indirect emissions of own material (e.g. energy consumption of buildings) and scope 3 the emissions from outsourced activities as well as the well-to-tank part.
- **Logistic centres**: no distinction is made between emissions from individual logistic facilities. An average emission per logistic facility and operator is calculated and used.
- Energy certificates: The tool aims to quantify the proportion of emission-free energy used to deliver parcels. This means that if, for example, energy is generated and used in-house for logistics activities, it should be entered, even if green certificates and 'GVOs' (i.e. 'guarantee of origin') are obtained or can be submitted for this purpose. What cannot be done is:
    - Include purchased certificates - or other compensation methods;
    - Include emission-free energy generated by the company itself but not used for logistics activities;
    - Apply the share of emission-free energy in the average Belgian energy mix as the share of emission-free energy, as the calculation tool starts from this mix and double-counting would occur.
- **Shared (mobile) infrastructure**: if infrastructure is shared by activities or products falling within the scope (parcels) on the one hand and those falling outside (such as letter mail, heavy parcels (+31.5kg) or palettes) on the other hand, then the split for the allocation of CO_2 should be made on the basis of the space typically (on average) used for these different activities or products based on surface area (e.g. in vans, trucks, logistic facilities, etc.).
  The justification for this split can, as for other assumptions, be requested by the BIPT, for instance in the case of a significant deviation (see also section 4.2.5) of CO_2 emissions per parcel between the reporting by the postal service provider and the reporting obtained through the tool.

Tab 6: CALCULATION VALUES

The calculation tool is based on ISO 14 083. It includes a scope description and methodological description, but does not include emission values to be used. The GLEC Framework – based on ISO 14 083 – does provide reference emission values for logistic activities. In view of the international nature of the postal service provider's activities and the European requirement for a CO_2 emission reporting for logistic activities (CSRD), the BIPT calculation tool is chosen to use the GLEC values.

This will ensure uniformity between the different reporting systems and may allow to reduce the administrative burden on postal service providers. The values below form the basis for the calculation tool. They are a relevant selection of the values found in the GLEC reports.

Table 1. Emission factors for Europe

Energy carrier	Lower heating value (MJ/kg)	Density (kg/l)	GHG emission TTW (g CO2e/MJ)	GHG emission WTW (g CO2e/MJ)	GHG emission WTT (g CO2e/MJ)	GHG emission TTW (g CO2e/kg or kWh for electric)	GHG emission WTW (g CO2e/kg or kWh for electric)	GHG emission WTT (g CO2e/kg or kWh for electric)	Source
Diesel	42.8	0.83	74.1	96.6	22.5	3.17	4.13	0.96	*Ecoinvent v3.9.1*
Gasoline	42.5	0.74	75.1	99.1	24	3.19	4.21	1.02	*Ecoinvent v3.9.1*
Biodiesel (50% rapeseed, 40% used cooking oil, 10% soybean)	37	0.89	0.05	34.3	34.25	0.0019	1.27	1.2681	*Ifeu, Infras & Fraunhofer IML, 2022*
HVO (50% rapeseed, 50% used cooking oil)	44	0.77	0.05	28.6	28.55	0.0022	1.26	1.2578	*Ifeu, Infras & Fraunhofer IML, 2022*
CNG	49.2	n.a.	56.6	79.2	22.6	1.5	3.9	2.4	*JEC 2020 modified*
LNG	49.1	n.a.	57.9	82.6	24.7	1.5	4.05	2.55	*JEC 2020 modified*
LPG	45.5	0.55	67.1	90.3	23.2	3.05	4.11	1.06	*Ecoinvent v3.9.1*
Electric	n.a.	n.a.	0	47.11	47.11	0	154	154	*EEA, 2022*
Hydrogen	120	n.a.	0	160.7	160.7	0	19.29	19.29	*JEC 2020 modified*

The values can be adjusted in the future if advancing insight and/or policy determines that other values are more appropriate.

Tabs 3 and 4: INPUT OPERATOR

The calculation tool requires a number of input data from the postal service providers in order to be able to generate accurate and robust results for the elements defined by the RD. The questions are the same for the scope in element 1° of the RD and the scope (distribution phase) of element in 2° of the RD.

First, two general questions are asked, which are based on the total annual energy consumption of the logistic facilities falling within the above mentioned limitations. The second question refers to the number of logistic facilities included within the above energy consumption calculation.

General questions		
[to be completed by the operator]		
What is the total annual energy use of all your logistic facilities (except headquarters if different) that fall within the limits (sorting centres, distribution centres, micro hubs)? Gas and other consumption should be converted to kWu.		*kWh*
What is the total number of logistic facilities included in the energy consumption calculation above?		*number of*

In order to minimize the administrative burden on postal service providers, the question is then asked whether the operator uses the same method of delivery – in particular the same type of vehicles, an equal number of logistic facilities, the same type of round, etc. – for the different delivery methods.

Own transport without distinction between all delivery methods		
Do you use a single delivery method yourself (chain of facilities, type of vehicles, type of drive, round, etc.) for the different delivery methods (private address point, manned collection point, unmanned collection point, shop, express delivery, sizeable delivery)?	yes	*Yes/No*

If this is the case, the postal service provider should only fill in the following questions once. After all, there is no need for a distinction between the delivery methods. Again, it should be stated that if a question does not apply, a zero value should be entered.

The first two questions of this section aim at the combined use, being respectively of vehicles for non-parcel volumes in the same round such as letters and combining pick-up and delivery in the same round. Then there are questions about the total annual parcel volume collected and delivered. The calculation of own transport-related emissions and emissions linked to the usage of non-electric vehicles and machinery in the logistics facilities is done on the basis of energy carrier consumption – as required by ISO 14 083 and GLEC. An extensive yet not exhaustive list of energy carriers was included: diesel, petrol, biodiesel, HVO, CNG, LNG, LPG, hydrogen and electric propulsion. Note that the unit size varies according to the energy carrier. Finally, the share of emission-free electricity in consumption is asked.

What portion of the surface of the logistic facilities (with the exception of the headquarters if this is different) is reserved for the parcel volumes that fall within the scope?		
What portion of the vehicle surface, on average, is reserved for the parcel volumes that fall within the scope?		*number between 0 and 100*
Do you combine collection and delivery on the same route?	no	*Yes/No*
What is the total annual volume of parcels that you deliver?		*number of parcels*
What is the total annual volume of parcels that you deliver?		*number of parcels*
How many litres of diesel do you use each year in the context of the above activity for your own transport and vehicle and machinery in the logistics facilities?		*litres of diesel*
How many litres of gasoline do you use each year in the context of the above activity for your own transport and vehicle and machinery in the logistics facilities?		*litres of gasoline*
How many litres of biodiesel do you use each year in the context of the above activity for your own transport and vehicle and machinery in the logistics facilities?		*litres of biodiesel*
How many litres of HVO do you use each year in the context of the above activity for your own transport and vehicle and machinery in the logistics facilities?		*litres of HVO*
How many kilograms of CNG do you use each year in the context of the above activity for your own transport and vehicle and machinery in the logistics facilities?		*kg of CNG*
How many kilograms of LNG do you use each year in the context of the above activity for your own transport and vehicle and machinery in the logistics facilities?		*kg of LNG*
How many litres of LPG do you use each year in the context of the above activity for your own transport and vehicle and machinery in the logistics facilities?		*litres of LPG*
How many megajoules of hydrogen do you use each year in the context of the above activity for your own transport and vehicle and machinery in the logistics facilities?		*MJ hydrogen*
How many kWh of electricity do you use each year for your own transport in the context of the above activity?		*KWh of electricity*
What is the share of emission-free electricity in your consumption?		*Portion - number between 0 and 100*

In order to correctly allocate the CO_2 emissions from the logistic facilities – which fall within the limitations – to the parcel volumes, it is also asked what proportion of the area (of these facilities) can be allocated to the parcel volume.

What portion of the surface of the logistic facilities (with the exception of the headquarters if this is different) is reserved for the parcel volumes that fall within the scope?		*number between 0 and 100*

In addition, the average number of logistic facilities – which fall within the limitations – are used for collection and delivery respectively.

How many logistic facilities do you use within the defined limits for collection?		*Number - e.g.: if for a manned collection point, a sorting centre and a distribution centre are used each time, then state '2'; if for a private address point, you use a sorting centre each time, and for 2 towns that account for 25% of the annual volume for this delivery method, additionally you use an urban distribution centre, then state'1,25'*
How many logistic facilities do you use within the defined limits for delivery?		*Number - e.g.: if for a manned collection point, a sorting centre and a distribution centre are used each time, then state'2'; if for a private address point, you use a sorting centre each time, and for 2 towns that account for 25% of the annual volume for this delivery method, additionally you use an urban distribution centre, then state'1,25'*

If the postal service provider uses different means of delivery for different delivery methods – for example, certain type of routes or certain type of vehicles for a single delivery method – the operator should provide the above information for each of the different delivery methods. It may be that multiple delivery methods have the same way of delivery, in which case the consumption data should be distributed proportionally according to the parcel volume across these multiple delivery methods.

Own transport with distinction between all delivery methods							
	Private address point	Manned collection point	Unmanned collection point	Shop	Express delive	Sizeable delivery	
On average, how many logistic facilities falling within the limits (sorting centres, distribution centres, micro-hubs, distribution centres) do you use for the following delivery modes?							*Number - e.g.: if for a manned collection point, a sorting centre and a distribution centre are used each time, then state "2" if for a private address point, you use a sorting centre each time, and for 2 towns that account for 25% of the annual volume for this delivery method, additionally you use an urban distribution centre, then state "1,25"*
What portion of the surface of the logistic facilities (with the exception of the headquarters if this is different) is reserved for the parcel volumes that fall within the scope for the following delivery modes?							*number between 0 and 100*
What portion of the vehicle surface, on average, is reserved for the parcel volumes that fall within the scope for the following delivery modes?							*number between 0 and 100*
Do you combine collection and delivery on the same route?	no						*Yes/No*
What is the total annual volume of parcels that you collect?							*number of parcels*
What is the total annual volume of parcels that you deliver?							*number of parcels*
How many litres of diesel do you use each year for your own transport within the following delivery modes?							*litres of diesel*
How many litres of gasoline do you use each year for your own transport within the following delivery modes?							*litres of gasoline*
How many litres of biodiesel do you use each year for your own transport within the following delivery modes?							*litres of biodiesel*
How many litres of HVO do you use each year for your own transport within the following delivery modes?							*litres of HVO*
How many kilograms of CNG do you use each year for your own transport within the following delivery modes?							*kg of CNG*
How many kilograms of LNG do you use each year for your own transport within the following delivery modes?							*kg of LNG*
How many litres of LPG do you use each year for your own transport within the following delivery modes?							*litres of LPG*
How many megajoules of hydrogen do you use each year for your own transport within the following delivery modes?							*MJ hydrogen*
How many kWh of electricity do you use each year for your own transport within the following delivery modes?							*KWh of electricity*
What is the proportion of emission-free electricity in your consumption?							*Portion - number between 0 and 100*

Finally, outsourced activities are also included in the RD and in the calculation tool. Postal service providers often do not have the same data for these outsourced activities. Therefore, for the calculation tool, it is requested to indicate the emissions for outsourced activities that fall within the limit. The postal service provider will have to request and collect this from the subcontractor(s) himself. These will also be required by the CSRD to report in the future.

Outsourced transport and logistic facilities distinguishing between all delivery methods							
Do you outsource transportation and/or activities in logistic facilities?	yes	*Yes/No*					
	Private address point	Manned collection point	Unmanned collection point	Shop	Express delive	Sizeable delivery	
What is the total annual volume of parcels that is outsourced for each of the delivery modes?							*number of parcels*
What volume of CO2 equivalent emissions is generated on an annual basis by the transport carried out for your outsourced deliveries?							*Kilogram of CO2 equivalent emissions per year*
What volume of CO2 equivalent emissions is generated on an annual basis by the logistic facilities within the scope for your outsourced activities?							*Kilogram of CO2 equivalent emissions per year*

Tab 2: INPUT BIPT

As indicated in the introduction, the calculation tool serves as a validation method for the CO_2 emissions per parcel and per method of delivery indicated by the postal service provider. In order to carry out the validation, the postal service provider must report to the BIPT the various elements of the RD. The BIPT, in turn, must enter these in the calculation tool in the corresponding tab – described here. If the same method of delivery goes for several delivery methods and correspondingly the same emissions per parcel for these delivery methods, the BIPT should enter this same value in each of the cells for which it applies.

Operator's own reporting						
[to be completed by the BIPT based on input operators - EMISSIONS PER PARCEL IN GRAMS]						
	Delivery method					
for each method of delivery, the average of the emissions of CO_2 equivalents generated by the collection, sorting, transport and distribution of postal items, measured in grams per volume unit determined by the Institute, distinguishing between the following emissions:	**Private address point**	**Manned collection point**	**Unmanned collection point**	**Shop**	**Express delivery**	**Sizeable delivery**
direct emissions from sources owned or managed by the undertaking;						
indirect emissions linked to energy consumption; and;						
other indirect emissions generated by outsourced activities.						
for each mode of delivery, the average of the emissions of CO_2 equivalents, measured in grams, by volume unit defined by the Institute, generated only during the distribution phase within the meaning of Article 2, 6° of the Act, distinguishing between the following emissions:						
direct emissions from sources owned or managed by the undertaking;						
indirect emissions linked to energy consumption; and;						
other indirect emissions generated by outsourced activities.						

Tab 7: DASHBOARD

The last tab displays the results. They shall contain the following results for each of the delivery methods and each of the sub-elements of element 1° and element 2° of the RD:

- The total annual CO_2 emissions
- The CO_2 emissions per parcel

- The difference in CO_2 emissions per parcel between the reporting by the postal service provider and this tool. Currently, a 10% difference is indicated as a threshold value to review the reported result. Practice will have to show how sensitive the results are to the difference in the level of detail between the input data of the tool and the postal service provider.

The tool uses the following formulas for the sub-elements of the RD:

- *direct emissions from sources owned or managed by the undertaking;*

$$\mathrm{U_{SLX}} = (OV_L * \sum_{D=1}^{9} (\mathrm{E_{DL}} * d_D * GT_D))/1000$$

With *U* as the CO_2 emission for scope *S*, delivery method *L* and the first sub-element of the Royal Decree *X*.*U* is the result of the summation of the multiplication of the energy consumption *E* for each of the energy carriers *D* for the respective delivery method, the density *d* for each of the energy carriers *D* and the tank-to-wheel emission value GT for each of the energy carriers *D*, and this summation multiplies by the proportion of the vehicle surface that can be allocated to the parcel volumes *OV*, and divided by a thousand to convert the calculation in grams into kilograms.

- *indirect emissions linked to energy consumption;*

$$\mathrm{U_{SLY}} = \left(\frac{EF}{TF}\right) * A_L * GW * OF_L * K\ /1000$$

With *U* as the CO_2 emission for SCOPE *S*, delivery method *L* and the second sub-element of the Royal Decree *Y*. *U* is the result of multiplying the total energy consumption for all facilities *EF*, divided by the total number of facilities *TF*, with the number of facilities *A* provided for each of the delivery methods *L*, the well-to-tank emission value GW, the share of the facility surface that can be allocated to the parcel volumes *OR* the share of zero-emission electricity *K* and divided by a thousand to convert the calculation in grams into kilograms.

- *other indirect emissions generated by outsourced activities;*

$$\mathrm{U_{SLZ}} = BF + BV + (OV_L * \sum_{D=1}^{9} (\mathrm{E_{DL}} * d_D * GW_D))/1000$$

With *U* as the CO_2 emission for scope *S* and delivery method *L* and the third sub-element of the Royal Decree *Z*. *U* is the result of the CO_2 emission of outsourced facilities *BF*, the CO_2 emission of outsourced transport activities *BV* and the summation of the multiplication of the energy consumption E for each of the energy carriers *D* for the respective delivery method , the density *d* for each of the energy carriers *D* and the tank-to-wheel emission value GW for each of the energy carriers *D*, and this summation multiplies by the proportion of the vehicle surface that can be allocated to the parcel volumes *OV*, and divided by a thousand to convert the calculation in grams into kilograms.

3 Benchmark

This study also includes a benchmark linked to the different elements of the Royal Decree.

3.1 Alignment of international reporting

The calculation tool should be aligned with the existing international standards. The following is an overview of the existing standards:

- **Corporate Sustainability Reporting Directive (CSRD):** is mandatory for European companies to map all **relevant** Environment, Social, Governance (**ESG**) **themes** transparently and in detail across the entire value chain (=> implications not only for sizes (250 employees, 50 m€ turnover, 25 m€ balance sheet total, but also subcontractors). The approach is one that follows the material sustainability themes, in which the impact of the company on the environment and of the environment on the company should be addressed. There are three scopes:

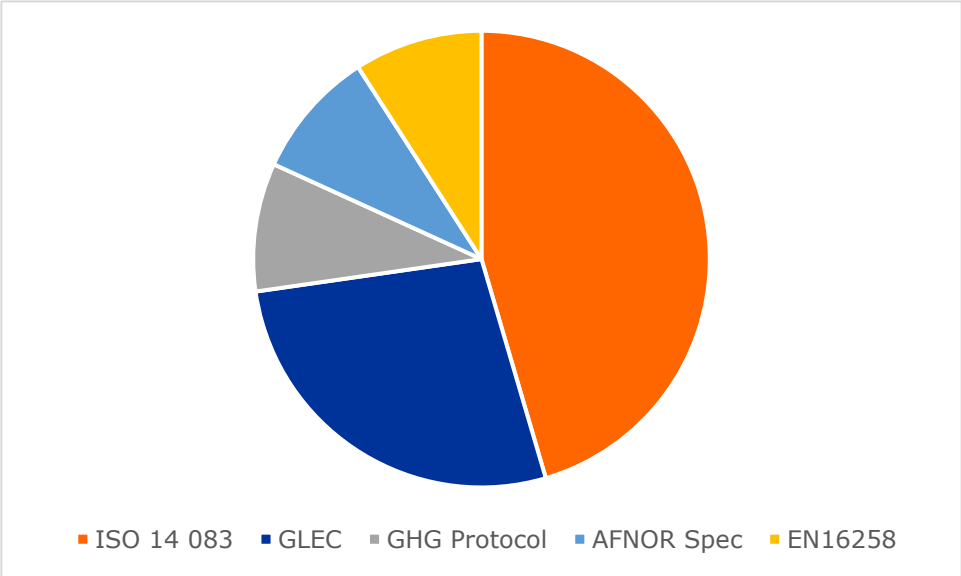
  Scope 1: direct emissions from the company, such as **own trucks and self-generated Energy**
  Scope 2: indirect emissions, such as **energy** purchased and used for heating, lighting, cooling, internal transport and storage
  Scope 3: indirect emissions in the value chain, such as **outsourced transport**

- **European Sustainability Reporting Standards (ESRS)**: is the technical specification of CSRD and the specific reporting requirements are laid down in the European Sustainability Reporting Standards (ESRS) developed by the European Financial Reporting Advisory Group. Co_2 emissions are covered by the thematic standard Environment (E): E1 – Climate change – which includes editorial conventions and table with CO_2 reporting format. This report refers to ISO 14 083 – the international standard for CO_2. calculation.
- **ISO 14 083**: indicates the common methodology for calculating and reporting greenhouse gas emissions from transport of persons and goods.
- **GLEC Framework**: provides a manual for the transport sector in implementing ISO 14 083. In addition, GLEC adds a guideline for a more standardized approach to emissions in cases where primary data are not available.
- **AFNOR Spec X43-072**: is a greenhouse gas emissions performance indicator for e-commerce deliveries. AFNOR is a commercial party that provides various certificates and ISO standards (also according to CO_2 reporting). The AFNOR Spec X43-072 provides a clear and operational methodology for the calculation of CO_2 equivalent emissions for road transport of e-commerce deliveries. ISO 14 083 and GLEC built on this methodology, and as such should be considered more desirable.
- **EN 17837:2023 Postal Services – Parcel Delivery Environmental Footprint**: provides the postal service sector with a methodology for reporting greenhouse gas and air-polluting emissions. Of particular interest here is the recommendation to report by parcel as a function of weight or volume rather than reporting by kilometre or ton-kilometre. The methodology is consistent with ISO 14 083 and GLEC and includes parcel retrieval, distribution and physical handling.
- **CountEmissions EU**: is still in a legislative process at the time of writing. However, the basic principles are already known. The aim is to develop a harmonized framework for the calculation of greenhouse gas emissions from transport services in freight and passenger transport.

CountEmissions EU will also be based on ISO 14 083. Large transport companies will be required to calculate their emissions for domestical operations based on primary data.

As part of this project, the standards currently applied by the postal services were polled (April/May 2024). This indicated a strong preference for ISO 14 083, as shown in Figure 2 below. 45% of postal service providers are using ISO 14 083, or are planning to do so in the very near future. An additional 27% uses GLEC – which is based on ISO 14 083. At the time of the search, only one postal service provider indicated that ISO 14 083 is currently not planned for their reporting.

Figure 2. Share of the use of international standards by the postal services.

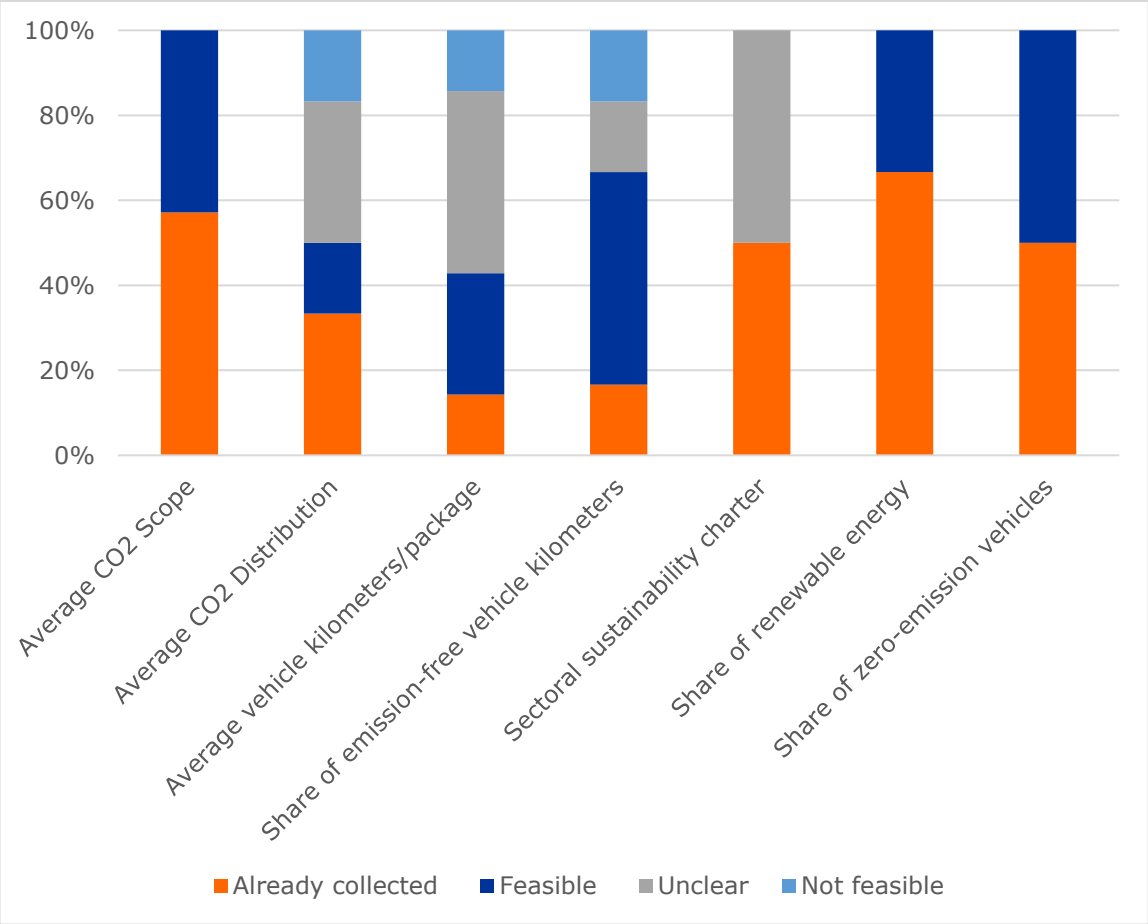


3.2 Feasibility of reporting about elements of the RD

A survey of the postal services covered by the RD was also organized during the start-up phase (April/May 2024) of this project. It was examined how feasible they estimate the reporting about the different elements. Their answers are shown in Figure 3.

In general, it can be said that the elements are rarely interpreted as impracticable. The reason for this is that the current systems they operate are not at the parcel level, but at the customer or country level, for example. This will therefore require an effort from the operators concerned to meet the requirements of the RD.

Figure 3. Feasibility analysis of the various elements of the RD.



The first element of the RD – also one element included in the calculation tool above – is considered feasible. A significant share of postal service providers already collects data on this element. For the second element – also subject of the above calculation tool – there are more ambiguities and there is one operator indicating that this element is not feasible. The latter (unattainable) is currently collecting the data at the customer level and not at the parcel level. This will therefore require an effort from the operator concerned to meet the requirements of the RD. The ambiguities relate to:

- working with outsourced transport, which means that collecting periodic data on, for example, vehicles deployed is a heavy administrative burden. The calculation tool addresses this because the tool retrieves the CO_2 emissions from the outsourced transport (and logistic facilities) and not the underlying variables that affect emissions. This aligns the tool with the CSRD;
- the issue of privacy and business-sensitive information that may need to be obtained from subcontractors. Again, this is not the case for the calculation tool. Postal service providers should, however, provide more detailed information for the tool – which may be considered as business-sensitive. However, this information is shared only with the BIPT (and not, for example, with other postal service providers or the VUB), which means that this data exchange cannot be considered as high risk;
- combining delivery and pick-up within the same round. The calculation tool has included this option. If applicable, this can be indicated and the tool shall take this into account.

- not all data is collected at the parcel level, but at the customer or country level for example, so a direct distinction between delivery methods is not always possible. Working with substantiated assumptions to arrive at differentiated data per delivery method, is permitted. The tool also allows the use of equal numbers for different delivery methods.

The uncertainties were eliminated during the consultations and individual consultation periods with postal services (by putting forward a practicable methodology).

The same ambiguities present with elements three and four. The data requested with regard to these elements are not directly linked to other (emerging) mandatory reports (such as CSRD). All actors – including subcontractors – should be able to provide a substantiated assessment of this. Postal service providers can also call on the RD for this.

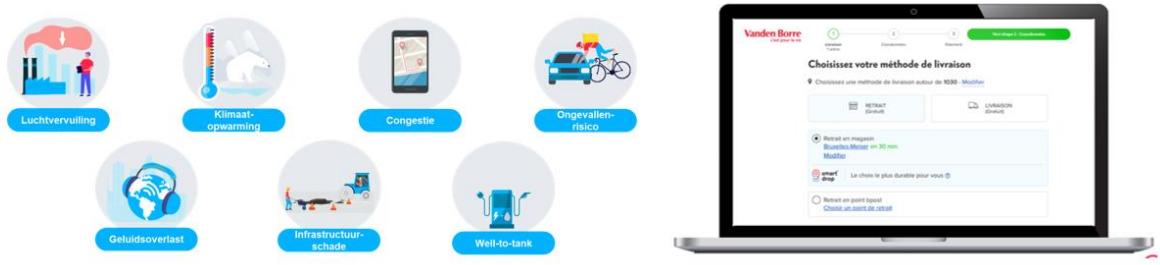
The sectoral sustainable charter does not yet exist – see the next section. The postal services therefore refer to sustainability initiatives such as the Green Deal Urban Logistics or the Lean&Green label.

The last two elements are considered fully feasible by the participating postal services.

3.3 Sustainability label

The biggest unknown factor between the different elements of the RD is: "*possible accession to a sectoral sustainability charter*". This is because at the time of writing, there is no sectoral sustainability charter for postal services in Belgium. (It also explains why the word 'possible' has been added to the text.

The first label is Smartdrop®, which is currently the closest to the RD. Smartdrop was developed by VUB Mobilise on behalf of COMEOS. It is a calculation tool for e-retailers and consumers that reflects the sustainability impact – expressed in terms of external costs and air-polluting and CO_2 emissions – for the different delivery options offered by the e-retailer. This allows this e-retailer to focus on making their deliveries more sustainable. In addition, consumers can be made aware of the most sustainable delivery option for them, thus nudging them to switch towards more sustainable choices. Smartdrop charges the delivery from the e-retailer distribution centre to the final destination, including the consumer movement. Currently, Smartdrop is not focused on postal services, and therefore does not meet the requirements of the RD.



Below is an overview of the key sustainability labels and charters for (certain elements of) e-commerce deliveries in Belgium and abroad. However, none of them currently meet the requirements of the RD.

Commitment to 20% reduction in logistics

'Star trajectory' for realization of commitment within 5y

For the entire logistics sector, managed in Flanders by VIL

CO2 only

Reliability label with different badges to be earned

Reliable, secure and transparent

Legal and IT support/check

Consumer review

Index of > 300 sustainability indicators

Social, environmental and economic indicators

For entire logistics sector, managed in Flanders by VIL

No breakthrough

Certified training for parcel delivery drivers

Road Safety

Sustainable urban logistics network

Engagement and monitoring

Just ended in Flanders, started in Brussels

Parcel operators involved

Reliability label

Annual audit by a law firm

Focused on consumer

Sustainability requirements include criteria related to 1) Sustainability strategy and management, 2) Product offering, 3) Packaging, 4) Delivery, 5) Returns, 6) Circular Economy

- Scientific rationale for topic and description
- Objective inspection method
- Use of growth model
- Annual inspection
- Management by Stichting Milieukeur
- Committee of experts and technical committee

Nordic Swancertificat 'E-commerce logistics 111'

Focus on climate impact, energy efficiency and working conditions

Criticism: "The licensee must be responsible for both line-haul and last-mile transport and have a business that covers at least 50% of the households in the actual country" en "Private trips to collect e-commerce goods from agents or parcel lockers are not included"

Criteria for last mile delivery services: environmental, public space, working conditions

German label

Consumer focused - goal is check-out : raise awareness

Sector agreement for fossil-free delivery

Accession through the Swedish Trade Federation

Finally, at the initiative of Minister Petra De Sutter's Federal Office, a preliminary project has been launched for the creation of a sectoral sustainability charter. During a preliminary study, in which all stakeholders were involved, prerequisites have been established. Following the preliminary study, a consortium was formed consisting of BCOM, UNIZO and COMEOS. They are currently continuing to work on the development of the sustainability charter. Work sessions were scheduled in September 2024. The finalization of the charter is planned for 2025.

3.4 Alternative benchmarks

In addition to the elements included in the RD, there may be other alternative benchmarks that could provide useful insights without imposing a heavy administrative burden.

The BIPT is already looking for several elements that could serve as alternative benchmarks:

- **Share of parcels delivered by means of electric vehicles**: This can be seen as a variant of the share of zero-emission vehicle kilometres and the share of zero-emission vehicles included as an element in the RD. These elements of the RD have the advantage that they go beyond electric propulsion and therefore also consider other emission-free propulsion methods. In addition, the number of kilometres and number of vehicles is more easily collected than the number/share of parcels transported via different vehicles/propulsions. Therefore, the existing elements in the Royal Decree are preferred.
- **Share of parcels delivered by means of cargo bikes or regular bicycles:** Both can also be considered as zero-emission vehicles, so the elements of the RD that ask for the proportion of zero-emission vehicle kilometres and the proportion of zero-emission vehicles apply again. However, cargo bikes and regular bicycles have a more significant impact than a shift from a fossil-powered van to a zero-emission powered van. It regards the impact for deliverers (position on the road, experience, weather conditions, ergonomics, etc.), as well as the impact on society (less congestion, less noise, less infrastructure damage, less public space consumption). Therefore, the inclusion of cargo bikes/regular bicycles as an alternative or additional element can be considered. As with the above, the number of vehicle kilometres or number of (cargo) bicycles will be easier to collect than the share of parcels delivered via these methods.
- The underlying objective of the RD is to improve the sustainability of the sector. It should be noted that the focus is almost exclusively on CO_2 emissions. **Other externalities such as accidents, noise, infrastructure damage, public space use, congestion and the economic and social dimension of sustainability are not taken into account**. As a result, some of the industry's efforts risk not being recognized or not being sufficiently recognized by the RD. Including bicycle logistics or the number of accidents per vehicle kilometre or per volume may fill some gaps. On the other hand, the aim can be to incorporate the missing elements as fully as possible into the sustainability charter referred to in the RD. With Thuiswinkel, there is an initiative in the Netherlands that takes into account several elements/criteria that relate to a more holistic approach to sustainability. It is recommended to keep an eye on this Dutch initiative and to apply any best practices from it also in Belgium.