PRO Fees 2025 | March 2025

Packaging EPR fee in EU: What are the differences?

Overview and comparison of PRO fees of January 2025.

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Content

1. Introduction

Packaging waste in the European Union has grown significantly, rising by more than 20 % over the past decade.[1] This surge presents critical environmental challenges, as improperly managed packaging contributes to pollution, ecosystem degradation, and greenhouse gas emissions.[2] Beyond disposal concerns, packaging remains a major consumer of raw materials, accounting for 40 % of plastics and 50 % of paper usage in the EU. Without effective intervention, packaging waste is expected to increase by an additional 19 % by 2030, posing a significant obstacle to achieving a low-carbon circular economy. [3]

Recognizing these challenges, the EU has taken progressive steps to manage packaging waste through policy interventions. The Packaging and Packaging Waste Directive (PPWD), first introduced in 1994, laid the foundation for shared responsibility in waste management. This evolved into the principle of Extended Producer Responsibility (EPR), which, under Directive 2018/851, mandates that producers bear financial and operational accountability for the entire lifecycle of their packaging. The revision of Directive 2018/852/CE further reinforced this approach by requiring all EU Member States to implement dedicated EPR schemes for packaging by 2025. These schemes, largely managed by Producer Responsibility Organizations (PROs), ensure that industry stakeholders contribute to the environmental costs of packaging waste.

To strengthen waste reduction efforts, the EU also adopted a new EU Packaging and Packaging Waste Regulation (PPWR) on 19 December 2024 to drive a circular and competitive packaging economy. In force since February 2025, the PPWR aims to cut primary raw material use, ensure all packaging is recyclable by 2030, integrate recycled plastics safely, and achieve climate neutrality by 2050. Covering the full packaging life cycle, it harmonizes national rules on manufacturing, recycling, and reuse. The regulation is expected to reduce GHG emissions, water consumption, and environmental and health risks.[4]

Against this evolving regulatory landscape, different EPR models have emerged across Europe, influenced by national economic, social, and administrative structures. Central to these models is the system of environmental contributions or fees, which finance collection, sorting, and recycling activities. These fees vary based on material type and environmental impact, making their analysis essential for understanding cost structures and policy effectiveness.

This report analyzes fees for 13 packaging solutions across 26 PROs to compare trends and identify patterns.

[1] https://ec.europa.eu/commission/presscorner/detail/en/ip_22_7155

[2] https://climate.mit.edu/ask-mit/would-stopping-plastic-pollution-help-climate-change-how-do-we-do-it

[3] https://ec.europa.eu/commission/presscorner/detail/en/ip_22_7155

[4] https://green-business.ec.europa.eu/news/new-eu-regulation-promotes-procurement-sustainable-packaging-2025-02-27_en#:~:text=The%20PPWR%2C%20which%20entered%20into,for%20climate%20neutrality%20by%202050.

2. Methodology

2.1. Calculation Method

The packaging solutions and examined PROs were pre-defined in order to cover a wide spectrum of different materials, use cases and actors. The following figure shows the 13 different packaging solutions.

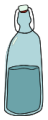
	B2C	B2B
Plastic	 Transparent PET bottle *35g bottle 2g cap*  Printed LDPE bag *5g*	Stretch film HDPE *1kg*
Bio-Plastic	 Shopper bag *7g*	
Aluminium	 Drinking can *33cl 13g*  Tray *0,07g*  Thin sheet *0,029g*	
Paper / Cardboard	 Milk beverage carton *1 liter 30g paper 8g PE 2g aluminium*  Paper cup cold drinks *40 cl 9,1g paper 0,9g PE*	 Cardboard box *222g*
Glass	 Transparent glass water bottle *75 cl 480g glass 0,6g aluminium cap*	
Steel	 Canned food *44g*	
Wood		 Wooden box *800g*

Figure 1: Overview of the 13 packaging solutions.

Moreover, please find the PROs that were taken into account in the table below:

Table 1: List of PROs

Country	PRO
Austria	ARA
Belgium	Valipac
Belgium	FostPlus
Bulgaria	ECOPACK
Cyprus	Green Dot Cyprus

Czech Republic	EKO-COM
Estonia	ETO
Finland	Finnish Packaging Producers (FPP)
Finland	Sumi Oy
France	CITEO
Germany	Reclay
Germany	BellandVision
Greece	HERRCO
Ireland	Repak
Italy	CONAI
Luxembourg	VALORLUX
Macedonia	PAKOMAK
Malta	GreenPak
Netherlands	Verpact
Portugal	Sociedad Ponto Verde (SPV)
Romania	ECO-ROM
Slovenia	SLOPAK
Spain	ecoembes
Spain	ecoembes Comerciales/GENCI
Sweden	Näringslivets Producentansvar (NPA)
UK	Valpak

Please note that the fee indicators were not calculated for the following countries / PROs, as no indicators for 2025 were available yet (as of 19th April 2025). Please find details below:

- Dansk Producent Ansvar (Denmark): We enquired with the PRO and received the following response: "Unfortunately, we do not have the fees for packaging yet. It will be made public during 2025. Please get updated on our website www.producentansvar.dk". Thus, no fees have been calculated yet.
- CITEO Pro (France): We enquired with the PRO and received the response that 2025 are available via download. However, only the fees for 2024 are listed on the download website. We informed PRO of this fact but received no further response.
- Rekopol (Poland): We enquired with the PRO and received the following response: "Rekopol doesn't publish their fees for the takeover of recycling obligation since they're considered our trade secret and are set individually for each client."
- Ecovidrio (Spain): As Ecovidrio works with ecoembes and only has its own tariffs for glass (which ecoembes does not have), Ecovidrio's glass tariffs were used in ecoembes' calculations; however, Ecovidrio's own calculations were not used for the other packaging solutions.
- Envipak (Slovakia): We reached out, but did not receive a response yet.

For the calculation, the fee indicators of the individual materials were identified on the respective PRO website. The fee indicators were given by weight, so that the indicator was multiplied by the respective weight of the product for the calculation. In some countries, other fees and discounts were also added/subtracted. For bioplastics, only

five PROs applied a distinct material-specific fee: FostPlus (Belgium), EKO-COM (Czech Republic), Finnish Packaging Producers (Finland), Sumi Oy (Finland), and CONAI (Italy). In all other cases, bioplastics were subject to the general plastic fee. Regarding the "Milk beverage carton" packaging category, nearly all PROs implemented a dedicated fee structure for beverage cartons or composite packaging, with the exception of CITEO (France), GreenPak (Malta), NPA (Sweden), and the UK, where no such differentiation was observed. The detailed calculation for the 13 packaging solutions for January 2025 can be found in the annex.

The products were categorized into B2C and B2B segments. B2C products were analyzed for PROs specializing in household packaging, while B2B products were assessed both for PROs exclusively managing industrial packaging and for those primarily focused on household packaging but offering distinct fee structures for industrial packaging as well.

The aggregate fee indicator for each PRO was determined by summing all ten B2C or all three B2B fee values. This indicator was also weighted based on the percentage share of each material in the total packaging placed on the market. For instance, if plastic constitutes 17 % of the total packaging market, its fee indicator was weighted by a factor of 0.17 before being incorporated into the overall aggregate fee indicator. The packaging volume data was primarily sourced from Eurostat[5], except for Macedonia, where data was obtained from AmCham Macedonia[6], and the UK, where Statista[7] was used as the reference.

All fee values are expressed in euro cents.

For the following countries, the calculation approach was slightly different:

- CITEO (France): CITEO uses an articulated mechanism to calculate fees per material with detailed formulas. As no additional information were at hand about awareness campaigns or reduced packaging, no bonuses were applied. Similarly, as no recycled content is assumed in the packaging, no incentives were applied. The penalties (such as for small beverage plastic bottles) were not applicable.

- BellandVision (Germany), Reclay (Germany) and ecoembes comerciales/GENCI (Spain): A license calculator from all PRO websites was used, as it allows to calculate the fee value according to each material's quantity put on the market.

- Valpak (UK): An average estimated cost value per material was used, as the national system is dynamic and prices vary continuously in relation to the market's performance of raw materials and the recycling cost (the fee for material is replaced by Certificates attesting the recycling quantities -Packaging Recycling Notes, PRN - at the expense of each obliged entity). The most recent published values (week of 31th January 2025) were used.

[5] https://ec.europa.eu/eurostat/databrowser/view/env_waspac__custom_15114556/default/table?lang=en

[6] https://amcham.mk/magazine/smart-packaging-waste-management/

[7] https://www.statista.com/statistics/476098/packaging-waste-and-reclycing-uk/

For some countries (in particular those East-European), the fee's value declared in local currency has been converted into euro currency of the period considered at the exchange. For countries where a Deposit Recycling System for Recycling (DRS) is active, for the Main PRO the value of the fee was calculated with reference to packaging of equivalent in weight and materials.

Chapter 4 outlines the developments of the fee indicators between July 2024 and January 2025. It has to be noted that new PROs and new packaging solutions were introduced during the establishment of this report, and the differentiation between B2B and B2C packaging was established. As a result, historical data for some newly included PROs could not always be reconstructed. In certain cases, only the fee indicators from January 2024 (rather than July 2024) were available retrospectively. However, since complete data for 2025 is already accessible - and the fees for the newly added PROs remained unchanged throughout that year - it can be reasonably assumed that these fees were also stable during 2024. Therefore, the January 2024 values can be considered representative of the July 2024 values.

Outlook

In UK it is announced that in October 2025, additional EPR fees will come into force for large producers.[8] The current PRN fees are associated with recycling and go directly to reprocessors or exporters accredited to issue PRNs. PRNs are determined by market forces. EPR fees will cover the net costs to local authorities of collecting and managing household packaging waste and will be fixed across a compliance year.

2.2. Sources for the recycling rates

The recycling rates in chapter 5 were primarily sourced from the Eurostat database. It should be noted, however, that the most recent data available from Eurostat dates back to 2022. While some PROs and national sources have published more recent figures, the 2022 Eurostat data was used consistently to ensure comparability across countries.
For the following countries the approach was slightly different:

- Macedonia: As Eurostat did not provide data for North Macedonia, the 2021 recycling rate from an OECD report was used.[9]
- UK: Since Eurostat also lacked data for the UK, a weighted average recycling rate was calculated based on material-specific recycling rates reported in a national news source. The overall rate was derived by weighting each material's recycling rate by its share in the total packaging market.[10]

[8] https://www.valpak.co.uk/epr-drs/epr-for-packaging/

[9] https://www.oecd.org/content/dam/oecd/en/publications/reports/2024/03/a-roadmap-towards-circular-economy-of-north-macedonia_f4d7444c/1973c88c-en.pdf

[10] https://www.businesswaste.co.uk/your-waste/packaging-waste-recycling/packaging-waste-facts-and-statistics/#:~:text=Around%202%20million%20tonnes%20of,wood%2C%20and%20other%20material%20packaging

3. Aggregate Fee Indicators

3.1. Aggregate fee indicators 2025 for B2C products

The table below shows the aggregate fee indicators. All values are presented in euro cents. They were determined according to the calculations in chapter 2. Moreover, the detailed calculations can be found in the annex.

Table 2: Aggregate fee indicators for B2C products in January 2025

Countries	PRO	Plastic		Bioplastic	Aluminum			Paper		Glass	Steel	Aggregated fee indicator	Weighted aggregated fee indicator
		Bottle	bag	Shopper	Can	Tray	Thin sheet	Beverage Carton	Paper cup	Bottle	Can		
Slovenia	SLOPAK	0,07	0,01	0,02	0,03	0,00014	0,00006	0,09	0,00	0,03	0,10	0,35	0,07
Macedonia	PAKO-MAK	0,15	0,02	0,03	0,06	0,00033	0,00014	0,17	0,03	2,28	0,18	2,93	0,52
Ireland	Repak	0,54	0,07	0,10	0,01	0,00005	0,00002	0,56	0,15	0,55	0,30	2,28	0,58
Italy	CONAI	0,56	0,29	0,09	0,02	0,00008	0,00003	0,67	0,09	0,72	0,02	2,45	0,61
Cyprus	Green Dot	0,37	0,05	0,07	0,03	0,00014	0,00006	0,45	0,15	1,33	0,40	2,84	0,67
UK	Valpak	0,21	0,03	0,04	0,08	0,00042	0,00017	0,06	0,01	3,40	0,02	3,84	0,80
Finland	FPP	0,81	0,08	0,20	0,04	0,00020	0,00008	0,68	0,18	3,65	0,13	5,76	0,86
Finland	Sumi Oy	0,83	0,08	0,22	0,09	0,00050	0,00021	0,59	0,15	4,47	0,32	6,75	0,91
Luxembourg	VALOR-LUX	0,73	0,36	0,50	0,02	0,00010	0,00004	1,10	0,04	0,85	0,12	3,73	0,93
Greece	HERRCO	0,66	0,44	0,45	0,41	0,40007	0,40003	0,67	0,46	1,29	0,49	5,67	1,05
Romania	ECO-ROM	0,55	0,04	0,06	0,19	0,00103	0,00043	0,36	0,09	4,55	0,38	6,21	1,15
Bulgaria	ECOPAK	0,48	0,06	0,08	0,18	0,00100	0,00041	0,61	0,11	6,35	0,27	8,14	1,63
France	CITEO	2,27	0,43	0,54	0,41	0,01161	0,01084	1,42	0,41	1,07	0,37	6,93	1,65
Czech Republic	EKO-COM	1,82	0,31	0,44	0,21	0,00112	0,00125	1,23	0,27	3,79	0,38	8,46	1,78
Estonia	ETO	1,70	0,23	0,32	0,38	0,00203	0,00084	0,50	0,13	5,78	1,14	10,18	2,01
Spain	ecoembes	1,49	0,63	0,21	0,08	0,00042	0,00017	2,50	0,22	2,19	0,88	8,20	2,01

Malta	GreenPak	0,76	0,10	0,14	0,26	0,00141	0,00059	0,65	0,20	7,07	0,91	10,10	2,04
Portugal	SPV	1,65	0,22	0,31	0,13	0,00069	0,00029	1,68	0,28	3,71	1,56	9,55	2,26
Belgium	FostPlus	1,30	0,64	2,74	0,06	0,00034	0,00014	3,12	0,15	4,61	0,49	13,12	3,15
Germany	Reclay	3,83	0,52	0,73	1,32	0,00712	0,00295	4,10	0,28	3,18	4,38	18,35	3,49
Germany	Bellandvi-sion	4,03	0,55	0,76	1,36	0,00732	0,00303	4,47	0,28	4,72	4,39	20,56	3,94
Austria	ARA	3,66	0,50	0,69	0,62	0,00336	0,00139	3,78	0,26	4,92	1,98	16,43	3,99
Netherlands	Verpact	4,86	0,66	1,15	0,39	0,00210	0,00087	3,63	0,36	4,82	1,58	17,47	4,00
Sweden	NPA	3,83	0,52	0,72	1,23	0,00664	0,00275	2,50	0,61	8,74	7,92	26,09	4,61

*The fee indicator for glass was derived from Ecovidrio.

In the table above the lowest and the highest fee values per packaging are highlighted in green and yellow respectively. Therefore, the results indicate that the fee values are:

- Lower in Slovenia (plastic, paper, glass), Ireland (aluminum) and UK (composites, steel)
- Higher in the Netherlands (plastic), Belgium (bioplastic), Germany (aluminum, composites), Greece (aluminum), and Sweden (paper, glass, steel).

Overall, the aggregate weighted fee indicator is lowest in Slovenia (0,07 ct), Macedonia (0,52 ct) and Ireland (0,58 ct). Slovenia's PRO, SLOPAK, has the lowest fee indicators for 5 out of the 10 packaging solutions, explaining the overall low aggregate indicator in 2025. One potential reason for these lower fees is that the PRO is owned by the producing companies, giving them a direct interest in cost minimization. [11] A producer-led PRO may operate more efficiently than an external, state-run, or independent organization.

[11] https://www.slopak.si/lastniki

On the other hand, the highest weighted aggregate fee indicators were found in Sweden (4,61 ct), Netherlands (4,00 ct) and Austria (3,99 ct). In Sweden, particularly high fees for paper, glass, and steel contribute significantly to the overall high fee indicator. NPA attributes these high fees primarily to the transfer of SEK 1 billion in collection costs from municipalities to producers and the mandated expansion of curbside collection until 2027, which accounts for nearly 70% of packaging fees. Additional cost drivers include logistics, recycling expenses, and regulatory requirements for new collection points, with fees expected to rise further before stabilizing post-2027.[12]

Moreover, even though the materials are the same, the packaging solutions "trays" and "thin sheets" have the highest fee indicator in Greece, while the "can" has the highest fee indicator in Germany. This is because the factor multiplied by weight has a smaller impact for trays and thin sheets due to their low weight. The stable cost per unit in Greece (0,4 cents) therefore significantly influences the fee for these lightweight packaging solutions, making their values higher than in other countries. In contrast, the aluminum can, which has a higher weight, results in a lower fee in Greece compared to Germany, because weight has a more substantial contribution to the fee calculation.

3.2. Aggregate fee indicators 2025 for B2B products

Table 3: Aggregate fee indicators for B2B products in January 2025

Countries	PRO	Plastic	Cardboard	Wood	Aggregated fee indicator	Weighted aggregated fee indicator
		Stretch film	Box	Box		
Portugal	SPV	0,43	0,14	0,18	0,75	0,17
Slovenia	SLOPAK	2,30	0,02	0,22	2,54	0,48
Sweden	NPA	1,74	0,19	0,35	2,28	0,53
Luxembourg	VALORLUX	3,95	0,32	1,16	5,43	0,99
Finland	FPP	5,30	0,06	0,17	5,53	1,03
Finland	Sumi Oy	5,40	0,27	0,21	5,87	1,14
Czech Republic	EKO-COM	2,93	0,33	5,50	8,77	1,16
Cyprus	Green Dot Cyprus	3,61	0,91	0,94	5,46	1,27
Belgium	Valipac	6,30	1,40	1,60	9,30	1,96
Malta	GreenPak	7,03	1,56	5,44	14,03	2,36
Spain	ecoembes comercial	12,00	0,38	1,20	13,58	3,05
Romania	ECO-ROM	7,48	1,66	5,98	15,12	3,63
Estonia	ETO	12,50	2,13	3,52	18,15	4,18
Italy	CONAI	22,00	1,44	0,56	24,00	4,41
Austria	ARA	18,00	1,55	1,60	21,15	4,42

[12] https://npa.se/en/producer-responsibility/packaging-fees

In the table above the lowest and the highest fee values per packaging are highlighted in green and yellow respectively. Therefore, the results indicate that the fee values are:

- Lower in Portugal (HDPE), Slovenia (Cardboard) and Finland (Wood)
- Higher in the Italy (HDPE), Estonia (Cardboard) and Romania (Wood).

Overall, the weighted aggregate fee indicator is lowest in Portugal (0,17 ct), Slovenia (0,48 ct) and Sweden (0,53 ct). For Sociedad PontoVerde (SPV, Portugal), the fees for B2C products are quite high, in the upper third, but for B2B packaging, they are relatively low. This is because Pontoverde has recently expanded its services to include the management of industrial and commercial packaging waste, and as infrastructure continues to develop, fees may increase in the future. [13]

On the other hand, the highest weighted aggregate fee indicators were found in Austria (4,42 ct), Italy (4,41 ct) and Estonia (4,18 ct). For ARA (Austria), the fees are relatively high compared to other PROs due to macroeconomic factors: inflation, stagnating economic growth, and volatile secondary material markets have increased the costs for collection and recycling. These increased costs must be covered by license fees, leading to tariff increases. [14] Additionally, a collection shift occurred in 2025, with plastic and metal packaging now being collected together in the yellow bin.[15] This change may have also incurred additional financial costs, which are reflected in the fees.

However, no clear pattern emerges, as there are only three packaging solutions, and as soon as one is the highest/lowest, the PRO is already among the top 3 in the overall fee indicator. An exception is Sweden and Luxembourg, where all fee indicators are relatively low, but no individual fee indicator is the lowest.

[13] https://www.revistapackaging.pt/index.php/atualidade/2162-sociedade-ponto-verde-assumira-gestao-de-embalagens-industriais-e-comerciais-em-2025?

[14] https://www.ara.at/news/tarifkalkulation-2024-herausforderung-wirtschaftslage

[15] https://www.ara.at/news/sammelumstellung-2025-alle-details-im-ueberblick

4. Comparison of the fee indicators across countries and years

4.1. Changes across B2C product material categories

Table 4: Changes in fee indicators between 2024 (July) and 2025 (January)

Country	PRO	PET	Other Plastic	Aluminium	Beverage composites	Paper	Glass	Steel	Average change
UK	Valpak	-67%	-67%	-70%	-89%	-89%	-53%	-89%	-75%
Finland	FPP	-15%	-20%	-63%	-14%	-14%	-25%	-63%	-31%
Finland	Sumi Oy	-17%	-24%	-16%	-19%	-19%	6%	-16%	-15%
Ireland	Repak	5%	5%	-71%	5%	5%	-3%	16%	-5%
Cyprus	Green Dot	0%	0%	0%	0%	0%	0%	0%	0%
Greece	HERRCO	0%	0%	0%	0%	0%	0%	0%	0%
Italy	CONAI	0%	0%	0%	0%	0%	0%	0%	0%
Malta	GreenPak	0%	0%	0%	0%	0%	0%	0%	0%
Romania	ECO-ROM	0%	0%	0%	n/a	0%	0%	0%	0%
Luxembourg	VALORLUX	5%	33%	-21%	-23%	-11%	-12%	51%	3%
Estonia	ETO	6%	6%	7%	3%	16%	11%	-4%	6%
Spain	ecoembes	-36%	17%	-3%	8%	15%	11%	45%	8%
Sweden	NPA	1%	1%	2%	23%	23%	9%	1%	9%
Germany	Reclay	6%	6%	15%	15%	4%	2%	14%	9%
Netherlands	Verpact	0%	0%	50%	5%	0%	0%	9%	9%
Macedonia	PAKOMAK	10%	10%	9%	n/a	10%	9%	10%	10%
Bulgaria	ECOPAK	13%	3%	5%	20%	7%	10%	13%	10%
France	CITEO	40%	8%	22%	n/a	6%	9%	-6%	13%
Czech Republic	EKO-COM	61%	1%	23%	-13%	17%	4%	7%	14%
Austria	ARA	14%	14%	41%	15%	0%	0%	50%	19%
Portugal	SPV	51%	51%	51%	57%	76%	199%	79%	81%
Belgium	FostPlus	321%	-7%	115%	28%	24%	40%	89%	87%
Slovenia	SLOPAK	23%	18%	23%	18%	1640%	1475%	18%	459%
Germany	BellandVision	Values for 2024 were not available							

The table above illustrates the changes in fee indicators from July 2024 to January 2025, excluding the impact of inflation rates. The list is organized according to the magnitude of the changes, from the highest reductions to the highest increases. Notably, five PROs—Green Dot Cyprus (Cyprus), HERRCO (Greece), CONAI (Italy) GreenPak (Malta), and ECO-ROM (Romania)—reported no changes in their fee indicators. In contrast, 14 PROs, including VALORLUX, ETO, ecoembes, NPA, Reclay, Verpact, PAKOMAK, ECOPAK, CITEO, EKO-COM, ARA, SPV, FostPlus, and SLOPAK, experienced fee increases.

For SLOPAK (Slovenia), significant fee increases were observed, particularly for paper (+1640 %) and glass (+1475 %), but the reasons for these hikes have not been publicly detailed by the PRO. However, such increases can often be attributed to rising collection, sorting, and recycling costs, regulatory changes, and fluctuations in the market for recycled materials. Their fees are relatively low compared to other PROs, so even small increases result in a notable change in the overall fee structure. However, they still maintain some of the lowest fees overall. FostPlus (Belgium) has experienced a significant increase in fees for PET (+321 %) and aluminum (+115 %). While the company has not provided specific details for those higher rates, the overall rise in material fees is attributed to macroeconomic factors like inflation and fluctuating material prices, along with additional costs arising from the new 2024-2028 accreditation system, which imposes stricter recycling requirements. The company has also made considerable investments in developing new recycling solutions and expanding capacity to meet its ambitious recycling targets.[16]

Conversely, four PROs—Valpak, FPP, Sumi Oy, and Repak—reported fee reductions. Valpak in the UK observed a decrease in PRN prices for all B2C materials, likely due to an oversupply of evidence notes in the PRN market. FPP (Finland) explained its lower rates by utilizing excess balance sheet assets from previous years, which enabled the PRO to offer more affordable rates than the actual recycling costs.[17] For Sumi Oy (Finland), although the CEO of Sumi Oy stated that there would be "no significant changes to the Sumi price list for 2025," some categories have seen price decreases. This can be attributed to the overall reduction in prices for producer organizations, as the market no longer operates under a monopolistic structure.[18]

Please note that values for BellandVision not available since the fee calculator at BellandVision does not provide access to historical fee data.

4.2. Changes across B2B product material categories

Table 5: Changes in fee indicators between 2024 (July) and 2025 (January)

Country	PRO	Stretch film	Cardboard	Wood	Average change
Finland	Sumi Oy	-10%	-80%	0%	-30%
Finland	FPP	-16%	-3%	-5%	-8%

[16] https://www.fostplus.be/en/blog/sustainability-pays-everything-you-need-to-know-about-2025-green-dot-rates

[17] https://verkkolehti.rinkiin.fi/price-list-abc-the-2025-recycling-fee-price-lists-have-been-published?lang=en

[18] https://verkkolehti.rinkiin.fi/price-list-abc-the-2025-recycling-fee-price-lists-have-been-published?lang=en

Austria	ARA	0%	0%	0%	0%
Cyprus	Green Dot Cyprus	0%	0%	0%	0%
Italy	CONAI	0%	0%	0%	0%
Luxembourg	VALORLUX	0%	0%	0%	0%
Malta	GreenPak	0%	0%	0%	0%
Romania	ECO-ROM	0%	0%	0%	0%
Sweden	NPA	0%	0%	0%	0%
Estonia	ETO	8%	0%	0%	3%
Czech Republic	EKO-COM	-18%	8%	29%	6%
Belgium	Valipac	19%	18%	18%	18%
Slovenia	SLOPAK	18%	1640%	11%	556%
Portugal	SPV	Values for 2024 not available			
Spain	ecoembes comercial / GENCI	Values for 2024 not available			

The table above illustrates the changes in fee indicators from 2024 to 2025, excluding the impact of inflation rates. The list is organized according to the magnitude of the changes, from the highest reductions to the highest increases.

There were no changes in fee indicators for seven PROs: ARA, Green Dot Cyprus, CONAI, VALORLUX, GreenPak, ECO-ROM and NPA. In contrast, fee indicators increased in four PROs: SLOPAK, Valipac, EKO-COM, and ETO. For SLOPAK (Slovenia), a significant rise in fees was observed for cardboard (+1640 %), but no explanations were given on the PRO‘s Website. Valipac (Belgium) did not provide an explanation for the increase, but in the past, they attributed higher rates to the need to meet evolving government expectations, which required more comprehensive tracking and verification of packaging waste destinations and recycling processes, resulting in additional resources and costs. [19] EKO-COM (Czech Republic) did not provide a detailed explanation either; however, they have previously cited rising energy costs, declining revenues from recycled materials, and higher processing costs as reasons for fee increases. [20]

On the other hand, two PROs showed a decrease in fee indicators: Sumi Oy, and FPP. The reasons for those changes were already explained in chapter 4.1.

Please note that values for BellandVision and ecoembes comerciales/GENCI not available since their fee calculators do not provide access to historical fee data.

[19] https://www.valipac.be/en/rates/

[20] https://obehove-hospodarstvi.cz/en/2022/12/10/pokracujici-podpora-trideni-a-recyklace-odpadu-v-cr/

5. Correlation of aggregate fee indicators and recycling rates

5.1. B2C PROs

The weighted aggregate fee indicators for each PRO were also compared to the recycling rates of the countries. Please see the sources for the recycling rates in chapter 2.2. Quotas not drawn from the general source are identified with an asterisk.

Table 6: Overview of weighted aggregate fee indicators for B2C products and recycling rates

Countries	PRO	Weighted aggregate fee indicator	Recycling rate
Malta	GreenPak	2,04	31,8%
Romania	ECO-ROM	1,15	37,3%
Macedonia	PAKOMAK*	0,52	40,9%
Greece	H.E.R.R.C.O.	1,05	43,0%
UK	VALPAK*	0,80	53,0%
Finland	Sumi Oy	0,91	57,8%
Finland	FPP	0,86	57,8%
Bulgaria	ECOPACK	1,63	58,3%
Portugal	SPV	2,26	61,1%
Ireland	Repak	0,58	62,0%
Slovenia	SLOPAK	0,07	62,6%
Luxembourg	VALORLUX	0,93	63,7%
Austria	ARA	3,99	66,2%
Sweden	NPA	4,61	66,3%
France	CITEO	1,65	67,2%
Germany	RECLAY	3,49	68,5%
Germany	BellandVision	3,94	68,5%
Spain	ECOEMBES	2,01	69,4%
Cyprus	GREEN DOT CYPRUS	0,67	69,5%
Czech Republic	EKO-COM	1,78	70,8%
Italy	CONAI	0,61	71,9%
Estonia	ETO	2,01	73,0%
Netherlands	Verpact	4,00	75,2%
Belgium	FostPlus	3,15	80,4%

Figure 2: Correlation of weighted aggregate fee indicators for B2C products and recycling rates

For B2C products, a weak to moderate positive correlation (correlation coefficient: 0.39) is observed between the fee indicator and the recycling rate. This suggests that there is only limited evidence of a linear relationship between the two variables. Therefore, it is likely that factors other than EPR fees play a more significant role in influencing the effectiveness of recycling programs.

The highest recycling rates are observed for Belgium, Netherlands and Estonia. Verpact and FostPlus have relatively high fees (FostPlus 6th highest, Verpact 3rd highest), supporting the assumption of a positive correlation between fee indicator and recycling rate. This may also suggest that the financial investments made by the PROs are contributing to higher recycling rates. As the fee indicators of ETO rank among the middle third, no clear conclusion about efficiency can be made.

In contrast, the lowest recycling rates are recorded in Malta, Romania, and Macedonia. However, since these are country-level rates, the actual recycling performance of individual PROs in these countries might differ. Furthermore, these recycling rates are based on data older than 2023, meaning they could currently be higher. When considering aggregate fee indicators, Malta ranks 8th highest, suggesting potential inefficiencies, as relatively high fees do not correspond to equally high recycling rates. Romania ranks 11th lowest, positioning it within the middle third, so that no clear statement can be made about efficiency. Meanwhile, Macedonia has the 2nd lowest fee indicator, which may indicate a need for increased investment in recycling to enhance performance.

5.2. B2B PROs

In the following, you can find this comparison also for B2B PROs. Please see the sources for the recycling rates in chapter 2.2.

Table 7: Overview of weighted aggregate fee indicators for B2B products and recycling rates

Countries	PRO	Weighted aggregated fee indicator	Recycling rate
Malta	GreenPak	2,36	31,8%
Romania	ECO-ROM	3,63	37,3%
Finland	Sumi Oy	1,14	57,8%
Finland	FPP	1,03	57,8%
Portugal	SPV	0,17	61,1%
Slovenia	SLOPAK	0,48	62,6%
Luxembourg	VALORLUX	0,99	63,7%
Austria	ARA	4,42	66,2%
Sweden	NPA	0,53	66,3%
Spain	Ecoembes comercial	3,05	69,4%
Cyprus	GREEN DOT CYPRUS	1,27	69,5%
Czech Republic	EKO-COM	1,16	70,8%
Italy	CONAI	4,41	71,9%
Estonia	ETO	4,18	73,0%
Belgium	Valipac	1,96	80,4%

Table 8: Comparison between the aggregate fee indicator and the PRO recycling rates

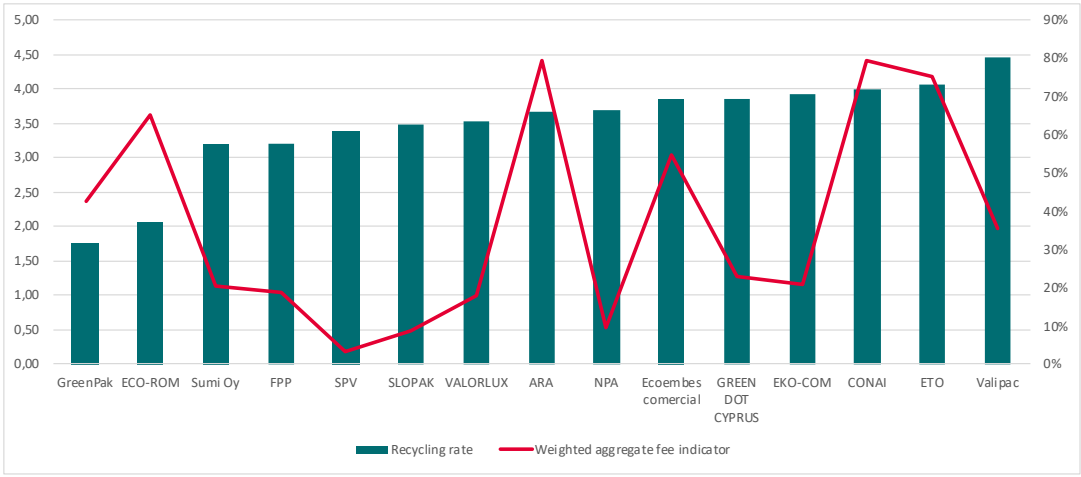


Figure 3: Correlation of weighted aggregate fee indicators for B2C products and recycling rates

Compared to B2C PROs, the correlation coefficient for B2B PROs is 0,003, indicating that the relationship between fee indicators and recycling rates is negligible or virtually nonexistent. As shown in the data, countries with higher recycling rates do not necessarily impose the highest EPR fees. This suggests that factors other than fee levels may play a more significant role in determining the effectiveness of recycling programs.

The highest recycling rates are observed for Belgium, Estonia and Italy. However, their fee indicators vary: while Valipac has a relatively medium fee indicator, ETO and CONAI have one of the highest. For Valipac, the data suggests no clear

conclusion about efficient recycling processes, whereas for ETO and CONAI, it indicates that investments in the system are justified and yield results.

Conversely, the lowest recycling rates are found for Malta, Romania and Finland. However, as these are country-level and the data predates 2023, current recycling rates for those individual PROs could be higher. As the fee indicators of GreenPak and Sumi Oy rank among the middle third, no clear conclusion about efficiency can be made. For ECO-ROM, as their fee indicator is the forth highest, it suggests room for improvement in efficiency.

6. Conclusion

The analysis of packaging fee indicators across various European countries provides valuable insights into cost structures, regulatory influences, and recycling efficiencies. The results indicate significant variations in fees across countries, largely driven by the ownership structure of PROs, regulatory policies, and macroeconomic factors such as inflation and market volatility.

Slovenia consistently emerges as a country with some of the lowest fee indicators (0,07 ct), particularly due to its producer-owned PRO, SLOPAK. This structure allows for cost efficiencies and lower fees, benefiting producers while maintaining effective waste management. Conversely, countries like Sweden, Austria, and the Netherlands show significantly higher fee indicators, attributed to regulatory changes, shifts in collection responsibilities, and increased recycling costs. Sweden (4,61 ct), for example, has transferred substantial collection costs to producers, explaining its high fee levels.

For B2B products, Portugal (0,17 ct), Slovenia (0,48 ct), and Sweden (0,53 ct) report the lowest aggregate fee indicators, while Austria (4,42 ct), Italy (4,41 ct) and Estonia (4,18 ct) have the highest. Austria's ARA faces high fees due to inflation, economic stagnation, and increased recycling costs. Similarly, Italy and Estonia struggle with economic factors that drive up the costs associated with packaging waste management.

Between 2024 and 2025, fees increased in 14 B2C PROs, remained unchanged in five, and decreased in another four. Among B2B PROs, fees rose in four, declined in two, and stayed the same in seven. Significant increases in fees are observed in Slovenia particularly for paper, and glass. These increases are probably linked to higher collection, sorting, and regulatory costs. In contrast, some countries, such as the UK and Finland, have seen reductions in fees due to oversupply in recycling markets and more efficient cost management by PROs.

For both B2C and B2B products, no strong correlation is observed between fee indicators and recycling performance. Some countries achieve high recycling rates despite relatively low EPR fees, suggesting the presence of efficient management systems and cost-effective recycling practices. Conversely, other countries with high EPR fees also report high recycling rates, indicating that the investments may be justified. However, since no consistent trend emerges across countries, it is likely that additional factors - beyond the fee levels - also influence recycling outcomes.

Overall, this analysis underscores the complex interplay between regulatory frameworks, economic conditions, and waste management practices.

7. Annex

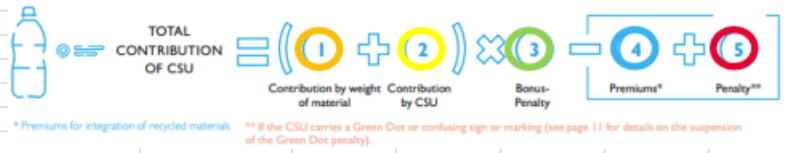
Please find below the special calculations for CITEO (France).

CITEO (FRANCE) calculations

January 2025

Formula:		1			2	3	4	5	
Packaging		weight (g)	Contribution by weight (ct/g)	Units per CSU	Contribution by CSU (ct)	Bonus	Premiums	Penalty	Fees for the products (cent)
PET bottle	transparent PET	35	0,05352	2	0,2715				2,2731
	Hard plastic	2	0,06422						
Printed LDPE	LDPE colour	5	0,05887	1	0,1308				0,4252
Stretch film H	HDPE transparent	1000	0,05887	1	0,1233				58,9933
Bioplastic	Bioplastic (PLA)	7	0,05887	1	0,1233				0,5354
Aluminium Ca	Aluminium	13	0,01865	1	0,1639				0,4064
Tray	Aluminium	0,07	0,01865	1	0,0103				0,0116
Thin sheet	Aluminium	0,029	0,01865	1	0,0103				0,0108
Milk box	Paper	30	0,02143	2	0,2715				1,4227
	PE Coating	8	0,05887						
	Aluminium	2	0,01865						
Paper Cup	Paper	9,1	0,02143	1	0,1639				0,411896
	PE	0,9	0,05887						
Carboard Box	Cardboard	222	0,02143		0,1233				4,88076
Transparent g	Glass	480	0,00164	2	0,2715				1,06989
	Aluminium	0,6	0,01865						
Canned tomat	Steel	44	0,00535	1	0,1308				0,3662
Wooden Box	Wood	800	0,02143	1	0,1233				17,2673

Calculation method



Please find the detailed calculations for all other PROs / countries on the following pages.

Country	B2?	Product	Material	Indicator (cent per g)	gram	Additional cost ((	Fee indicator
Austria	B2C	PET bottle	transparent PET	0,099	35		3,663
	B2C		Hard plastic	0,099	2		
	B2C	Printed LDPE bag	LDPE colour	0,099	5		0,495
	B2B	Stretch film HDPE	HDPE transparent	0,018	1000		18,000
	B2C	Shopper	Bioplastic	0,099	7		0,693
	B2C	Aluminium Can	Aluminium	0,048	13		0,624
	B2C	Tray	Aluminium	0,048	0,07		0,003
	B2C	Thin sheet	Aluminium	0,048	0,029		0,001
	B2C	Milk box	Beverage composite carto	0,097	38		3,782
			Aluminium	0,048	2		-
	B2C	Paper Cup	Paper	0,019	9,1		0,262
	B2C		PE	0,099	0,9		-
	B2B	Carboard Box	Cardboard	0,007	222		1,554
	B2C	Transparent glass	Glass	0,0102	480		4,925
	B2C		Aluminium	0,048	0,6		-
	B2C	Canned tomatoes	Steel	0,045	44		1,980
	B2B	Wooden Box	Wood	0,002	800		1,600
Belgium (Valipac)	B2C	PET bottle	transparent PET	0,0063	35		0,233
	B2C		Hard plastic	0,0063	2		
	B2C	Printed LDPE bag	LDPE colour	0,0063	5		0,032
	B2B	Stretch film HDPE	HDPE transparent	0,0063	1000		6,300
	B2C	Bioplastic	Bioplastic	0,0063	7		0,044
	B2C	Aluminium Can	Aluminium	0,002	13		0,026
	B2C	Tray	Auminium	0,002	0,07		0,000
	B2C	Thin sheet	Aluminium	0,002	0,029		0,000
	B2C	Milk box	Paper	0,002	30		0,114
	B2C		PE	0,0063	8		
	B2C		Aluminium	0,002	2		
	B2C	Paper Cup	Paper	0,002	9,1		0,024
	B2C		PE	0,0063	0,9		
	B2B	Carboard Box	Cardboard	0,002	222		1,404
	B2C	Transparent glass	Glass	0,002	480		0,961
	B2C		Aluminium	0,002	0,6		
	B2C	Canned tomatoes	Steel	0,002	44		0,088
	B2B	Wooden Box	Wood	0,002	800		1,600
Belgium (Fost Plus)	B2C	PET bottle	transparent PET	0,02718	35		1,303
	B2C		Hard plastic	0,17609	2		
	B2C	Printed LDPE bag	LDPE colour	0,12844	5		0,642
	B2B	Stretch film HDPE	HDPE transparent	0,12844	1000		128,440
	B2C	Bioplastic	Bioplastic	0,39092	7		2,736
	B2C	Aluminium Can	Aluminium	0,00481	13		0,063
	B2C	Tray	Aluminium	0,00481	0,07		0,000
	B2C	Thin sheet	Aluminium	0,00481	0,029		0,000
	B2C	Milk box	Beverage composite carto	0,0818	38		3,118
			Aluminium	0,00481	2		
		Paper Cup	Paper	0,01503	10		0,150
	B2B	Carboard Box	Cardboard	0,01503	222		3,337
	B2C	Transparent glass	Glass	0,0096	480		4,611
	B2C		Aluminium	0,00481	0,6		
	B2C	Canned tomatoes	Steel	0,01117	44		0,491
	B2B	Wooden Box	Wood	0,39092	800		312,736
Bulgaria	B2C	PET bottle	transparent PET	0,013005	35		0,479
	B2C		Hard plastic	0,011832	2		
	B2C	Printed LDPE bag	LDPE colour	0,011832	5		0,059
	B2B	Stretch film HDPE	HDPE transparent	0,011832	1000		11,832
	B2C	Bioplastic	Bioplastic	0,011832	7		0,083
	B2C	Aluminium Can	Aluminium	0,014229	13		0,185
	B2C	Tray	Aluminium	0,014229	0,07		0,001
	B2C	Thin sheet	Aluminium	0,014229	0,029		0,000
	B2C	Milk box	Beverage composite carto	0,015198	38		0,606
			Aluminium	0,014229	2		
		Paper Cup	Paper	0,011118	9,1		0,112
	B2C		PE	0,011832	0,9		
	B2B	Cardboard Box	Cardboard	0,011118	222		2,468
	B2C	Transparent glass	Glass	0,013209	480		6,349
	B2C		Aluminium	0,014229	0,6		
	B2C	Canned tomatoes	Steel	0,006069	44		0,267
	B2B	Wooden Box	Wood	0,006018	800		4,814
	B2C	PET bottle	transparent PET	0,01006	35		0,372
	B2C		Hard plastic	0,01006	2		
	B2C	Printed LDPE bag	LDPE colour	0,01006	5		0,050
	B2B	Stretch film HDPE	HDPE transparent	0,003605	1000		3,605
	B2C	Bioplastic	Bioplastic	0,01006	7		0,070
	B2C	Aluminium Can	Aluminium	0,002031	13		0,026
	B2C	Tray	Aluminium	0,002031	0,07		0,000
	B2C	Thin sheet	Aluminium	0,002031	0,029		0,000

Cyprus	B2C	Milk box	Beverage composite carto	0,011661	38		0,447
			Aluminium	0,002031	2		
		Paper Cup	Paper	0,014941	9,1		0,145
	B2C		PE	0,01006	0,9		
	B2B	Carboard Box	Cardboard	0,004114	222		0,913
	B2C	Transparent glass	Glass	0,002761	480		1,326
	B2C		Aluminium	0,002031	0,6		
	B2C	Canned tomatoes	Steel	0,009062	44		0,399
	B2B	Wooden Box	Wood	0,00118	800		0,944
Czech Rep.	B2C	PET bottle	transparent PET	0,0474	35		1,825
	B2C		Hard plastic	0,082936	2		
	B2C	Printed LDPE bag	LDPE colour	0,062816	5		0,314
	B2B	Stretch film HDPE	HDPE transparent	0,002932	1000		2,932
	B2C	Bioplastic	Bioplastic	0,062816	7		0,440
	B2C	Aluminium Can	Aluminium	0,016068	13		0,209
	B2C	Tray	Aluminium	0,016068	0,07		0,001
	B2C	Thin sheet	Aluminium	0,043108	0,029		0,001
	B2C	Milk box	Paper	0,031516	38		1,230
			Aluminium	0,016068	2		
		Paper Cup	Paper	0,023788	9,1		0,273
	B2C		PE	0,062816	0,9		
	B2B	Carboard Box	Cardboard	0,001508	222		0,335
	B2C	Transparent glass	Glass	0,007872	480		3,788
	B2C		Aluminium	0,016068	0,6		
	B2C	Canned tomatoes	Steel	0,008556	44		0,376
	B2B	Wooden Box	Wood	0,006876	800		5,501
Estonia	B2C	PET bottle	transparent PET	0,046	35		1,702
	B2C		Hard plastic	0,046	2		
	B2C	Printed LDPE bag	LDPE colour	0,046	5		0,230
	B2B	Stretch film HDPE	HDPE transparent	0,0125	1000		12,500
	B2C	Bioplastic	Bioplastic	0,046	7		0,322
	B2C	Aluminium Can	Aluminium	0,029	13		0,377
	B2C	Tray	Aluminium	0,029	0,07		0,002
	B2C	Thin sheet	Aluminium	0,029	0,029		0,001
	B2C	Milk box	Beverage composite carto	0,0115	38		0,495
			Aluminium	0,029	2		
		Paper Cup	Paper Composite	0,013	10		0,130
	B2B	Carboard Box	Cardboard	0,0096	222		2,131
	B2C	Transparent glass	Glass	0,012	480		5,777
	B2C		Aluminium	0,029	0,6		
	B2C	Canned tomatoes	Steel	0,026	44		1,144
	B2B	Wooden Box	Wood	0,0044	800		3,520
Finland (FPP)	B2C	PET bottle	transparent PET	0,0219	35		0,810
	B2C		Hard plastic	0,0219	2		
	B2C	Printed LDPE bag	LDPE colour	0,0159	5		0,080
	B2B	Stretch film HDPE	HDPE transparent	0,0053	1000		5,300
	B2C	Bioplastic	Bioplastic	0,0289	7		0,202
	B2C	Aluminium Can	Aluminium	0,0029	13		0,038
	B2C	Tray	Aluminium	0,0029	0,07		0,000
	B2C	Thin sheet	Aluminium	0,0029	0,029		0,000
	B2C	Milk box	Beverage composite carto	0,0177	38		0,678
			Aluminium	0,0029	2		
		Paper Cup	Paper Composite	0,0177	10		0,177
	B2B	Carboard Box	Cardboard	0,00028	222		0,062
	B2C	Transparent glass	Glass	0,0076	480		3,650
	B2C		Aluminium	0,0029	0,6		
	B2C	Canned tomatoes	Steel	0,0029	44		0,128
	B2B	Wooden Box	Wood	0,00021	800		0,168
Finland (Sumi Oy)	B2C	PET bottle	transparent PET	0,0224	35		0,829
	B2C		Hard plastic	0,0224	2		
	B2C	Printed LDPE bag	LDPE colour	0,0159	5		0,080
	B2B	Stretch film HDPE	HDPE transparent	0,0054	1000		5,400
	B2C	Bioplastic	Bioplastic	0,0315	7		0,221
	B2C	Aluminium Can	Aluminium	0,0072	13		0,094
	B2C	Tray	Aluminium	0,0072	0,07		0,001
	B2C	Thin sheet	Aluminium	0,0072	0,029		0,000
	B2C	Milk box	Beverage composite carto	0,0152	38		0,592
			Aluminium	0,0072	2		
		Paper Cup	Paper	0,0152	10		0,152
	B2B	Carboard Box	Cardboard	0,0012	222		0,266
	B2C	Transparent glass	Glass	0,0093	480		4,468
	B2C		Aluminium	0,0072	0,6		
	B2C	Canned tomatoes	Steel	0,0072	44		0,317
	B2B	Wooden Box	Wood	0,00026	800		0,208
	B2C	PET bottle	transparent PET		35		2,27314
	B2C		Hard plastic		2		
	B2C	Printed LDPE bag	LDPE colour		5		0,42515

France (CITEO)	B2B	Stretch film HDPE	HDPE transparent	see own sheet "France"	1000		58,9933
	B2C	Bioplastic	Bioplastic				0,53539
	B2C	Aluminium Can	Aluminium		13		0,40635
	B2C	Tray			0,07		0,0116055
	B2C	Thin sheet			0,029		0,01084085
	B2C	Milk box					1,42266
	B2C	Paper Cup					0,411896
	B2B	Carboard Box	Cardboard		222		4,88076
	B2C	Transparent glass	Glass		480		1,06989
	B2C		Aluminium		0,6		
	B2C	Canned tomatoes	Steel		44		0,3662
	B2B	Wooden Box	Wood		800		17,2673
Germany (Reclay)	B2C	PET bottle	transparent PET	0,10362	35		3,834
	B2C		Hard plastic	0,10362	2		
	B2C	Printed LDPE bag	LDPE colour	0,10362	5		0,518
	B2B	Stretch film HDPE	HDPE transparent	0,10362	1000		103,620
	B2C	Bioplastic	Bioplastic	0,10362	7		0,725
	B2C	Aluminium Can	Aluminium	0,101745	13		1,323
	B2C	Tray	Aluminium	0,101745	0,07		0,007
	B2C	Thin sheet	Aluminium	0,101745	0,029		0,003
	B2C	Milk box	Beverage composite carto	0,102495	38		4,098
			Aluminium	0,101745	2		
		Paper Cup	Paper	0,020745	9,1		0,282
	B2C		PE	0,10362	0,9		
	B2B	Carboard Box	Cardboard	0,020745	222		4,605
	B2C	Transparent glass	Glass	0,006495	480		3,179
	B2C		Aluminium	0,101745	0,6		
	B2C	Canned tomatoes	Steel	0,099495	44		4,378
	B2B	Wooden Box	Wood	0,005745	800		4,596
Germany (BellandVision)	B2C	PET bottle	transparent PET	0,109	35		4,033
	B2C		Hard plastic	0,109	2		
	B2C	Printed LDPE bag	LDPE colour	0,109	5		0,545
	B2B	Stretch film HDPE	HDPE transparent	0,109	1000		109,000
	B2C	Bioplastic	Bioplastic	0,109	7		0,763
	B2C	Aluminium Can	Aluminium	0,1045	13		1,359
	B2C	Tray	Aluminium	0,1045	0,07		0,007
	B2C	Thin sheet	Aluminium	0,1045	0,029		0,003
	B2C	Milk box	Beverage composite carto	0,112	38		4,465
			Aluminium	0,1045	2		
		Paper Cup	Paper	0,0198	9,1		0,278
	B2C		PE	0,109	0,9		
	B2B	Carboard Box	Cardboard	0,0198	222		4,396
	B2C	Transparent glass	Glass	0,0097	480		4,719
	B2C		Aluminium	0,1045	0,6		
	B2C	Canned tomatoes	Steel	0,0998	44		4,391
	B2B	Wooden Box	Wood	0,0089	800		7,120
Greece	B2C	PET bottle	transparent PET	0,00705	35	0,4	0,661
	B2C		Hard plastic	0,00705	2		
	B2C	Printed LDPE bag	LDPE colour	0,00705	5	0,4	0,435
	B2B	Stretch film HDPE	HDPE transparent	0,00705	1000	0,4	7,450
	B2C	Bioplastic	Bioplastic	0,00705	7	0,4	0,449
	B2C	Aluminium Can	Aluminium	0,00105	13	0,4	0,414
	B2C	Tray		0,00105	0,07	0,4	0,400
	B2C	Thin sheet		0,00105	0,029	0,4	0,400
	B2C	Milk box	Paper	0,00705	38	0,4	0,670
			Aluminium	0,00105	2		
		Paper Cup	Paper	0,00555	9,1	0,4	0,457
	B2C		PE	0,00705	0,9		
	B2B	Carboard Box	Cardboard	0,00555	222	0,4	1,632
	B2C	Transparent glass	Glass	0,00185	480	0,4	1,289
	B2C		Aluminium	0,00105	0,6		
	B2C	Canned tomatoes	Steel	0,0021	44	0,4	0,492
	B2B	Wooden Box	Wood	0,00101	800	0,4	1,208
Ireland	B2C	PET bottle	transparent PET	0,014603	35		0,540
	B2C		Hard plastic	0,014603	2		
	B2C	Printed LDPE bag	LDPE colour	0,014603	5		0,073
	B2B	Stretch film HDPE	HDPE transparent	0,014603	1000		14,603
	B2C	Bioplastic	Bioplastic	0,014603	7		0,102
	B2C	Aluminium Can	Aluminium	0,000768	13		0,010
	B2C	Tray	Aluminium	0,000768	0,07		0,000
	B2C	Thin sheet	Aluminium	0,000768	0,029		0,000
	B2C	Milk box	Beverage composite carto	0,014603	38		0,556
			Aluminium	0,000768	2		
		Paper Cup	Paper	0,014603	9,1		0,146
	B2C		PE	0,014603	0,9		
	B2B	Carboard Box	Cardboard	0,003254	222		0,722
	B2C	Transparent glass	Glass	0,001141	480		0,548

	B2C	[illegible]	Aluminium	0,000768	0,6		[illegible]
	B2C	Canned tomatoes	Steel	0,006882	44		0,303
	B2B	Wooden Box	Wood	0,001847	800		1,478
Italy	B2C	PET bottle	transparent PET	0,014603	35		0,558
	B2C		Hard plastic	0,0233	2		
	B2C	Printed LDPE bag	LDPE colour	0,0589	5		0,295
	B2B	Stretch film HDPE	HDPE transparent	0,022	1000		22,000
	B2C	Bioplastic	Bioplastic	0,013	7		0,091
	B2C	Aluminium Can	Aluminium	0,0012	13		0,016
	B2C	Tray	Aluminium	0,0012	0,07		0,000
	B2C	Thin sheet	Aluminium	0,0012	0,029		0,000
	B2C	Milk box	Beverage composite carto	0,0175	38		0,667
			Aluminium	0,0012	2		
		Paper Cup	Beverage composite carto	0,0085	10		0,085
	B2B	Carboard Box	Cardboard	0,0065	222		1,443
	B2C	Transparent glass	Glass	0,0015	480		0,721
	B2C		Aluminium	0,0012	0,6		
	B2C	Canned tomatoes	Steel	0,0005	44		0,022
	B2B	Wooden Box	Wood	0,0007	800		0,560
Luxembourg	B2C	PET bottle	transparent PET	0,01957	35		0,733
	B2C		Hard plastic	0,02407	2		
	B2C	Printed LDPE bag	LDPE colour	0,07192	5		0,360
	B2B	Stretch film HDPE	HDPE transparent	0,00395	1000		3,950
	B2C	Bioplastic	Bioplastic	0,07192	7		0,503
	B2C	Aluminium Can	Aluminium	0,00145	13		0,019
	B2C	Tray	Aluminium	0,00145	0,07		0,000
	B2C	Thin sheet	Aluminium	0,00145	0,029		0,000
		Milk box	Beverage composite carto	0,029	38		1,105
			Aluminium	0,00145	2		
	B2C	Paper Cup	Beverage composite carto	0,00402	10		0,040
	B2B	Carboard Box	Cardboard	0,00145	222		0,322
	B2C	Transparent glass	Glass	0,00177	480		0,850
	B2C		Aluminium	0,00145	0,6		
	B2C	Canned tomatoes	Steel	0,00271	44		0,119
	B2B	Wooden Box	Wood	0,00145	800		1,160
Macedonia	B2C	PET bottle	transparent PET	0,00415	35		0,154
	B2C		Hard plastic	0,00415	2		
	B2C	Printed LDPE bag	LDPE colour	0,00415	5		0,021
	B2B	Stretch film HDPE	HDPE transparent	0,00415	1000		4,150
	B2C	Bioplastic	Bioplastic	0,00415	7		0,029
	B2C	Aluminium Can	Aluminium	0,00475	13		0,062
	B2C	Tray	Aluminium	0,00475	0,07		0,000
	B2C	Thin sheet	Aluminium	0,00475	0,029		0,000
	B2C	Milk box	Paper	0,00415	38		0,167
	B2C		Aluminium	0,00475	2		
	B2C	Paper Cup	Paper	0,0034	9,1		0,035
	B2C		PE	0,00415	0,9		
	B2B	Carboard Box	Cardboard	0,0034	222		0,755
	B2C	Transparent glass	Glass	0,00475	480		2,283
	B2C		Aluminium	0,00475	0,6		
	B2C	Canned tomatoes	Steel	0,00413	44		0,182
	B2B	Wooden Box	Wood	0,00335	800		2,680
Malta	B2C	PET bottle	transparent PET	0,0205	35		0,759
	B2C		Hard plastic	0,0205	2		
	B2C	Printed LDPE bag	LDPE colour	0,0205	5		0,103
	B2B	Stretch film HDPE	HDPE transparent	0,007031	1000		7,031
	B2C	Bioplastic	Bioplastic	0,0205	7		0,144
	B2C	Aluminium Can	Aluminium	0,0202	13		0,263
	B2C	Tray	Aluminium	0,0202	0,07		0,001
	B2C	Thin sheet	Aluminium	0,0202	0,029		0,001
	B2C	Milk box	Paper	0,0203	30		0,649
			PE	0,0205	8		
			Aluminium	0,0202	2		
		Paper Cup	Paper	0,0203	9,1		0,203
	B2C		PE	0,0205	0,9		
	B2B	Carboard Box	Cardboard	0,007031	222		1,561
	B2C	Transparent glass	Glass	0,0147	480		7,068
	B2C		Aluminium	0,0202	0,6		
	B2C	Canned tomatoes	Steel	0,0207	44		0,911
	B2B	Wooden Box	Wood	0,006798	800		5,438
	B2C	PET bottle	transparent PET	0,132	35		4,864
	B2C		Hard plastic	0,122	2		
	B2C	Printed LDPE bag	LDPE colour	0,132	5		0,660
	B2B	Stretch film HDPE	HDPE transparent	0,132	1000		132,000
	B2C	Bioplastic	Bioplastic	0,132	7	0,23	1,154
	B2C	Aluminium Can	Aluminium	0,03	13		0,390
	B2C	Tray	Aluminium	0,03	0,07		0,002

Netherlands	B2C	Thin sheet	Aluminium	0,03	0,029		0,001
	B2C	Milk box	Beverage composite carto	0,088	38	0,23	3,634
			Aluminium	0,03	2		
		Paper Cup	Paper	0,0017	9,1	0,23	0,364
	B2C		PE	0,132	0,9		
	B2B	Carboard Box	Cardboard	0,0017	222		0,377
	B2C	Transparent glass	Glass	0,01	480		4,818
	B2C		Aluminium	0,03	0,6		
	B2C	Canned tomatoes	Steel	0,036	44		1,584
	B2B	Wooden Box	Wood	0,0015	800		1,200
Portugal	B2C	PET bottle	transparent PET	0,04471	35		1,654
	B2C		Hard plastic	0,04471	2		
	B2C	Printed LDPE bag	LDPE colour	0,04471	5		0,224
	B2B	Stretch film HDPE	HDPE transparent	0,00043	1000		0,430
	B2C	Bioplastic	Bioplastic	0,04471	7		0,313
	B2C	Aluminium Can	Aluminium	0,00991	13		0,129
	B2C	Tray	Aluminium	0,00991	0,07		0,001
	B2C	Thin sheet	Aluminium	0,00991	0,029		0,000
	B2C	Milk box	Beverage composite carto	0,04376	38		1,683
			Aluminium	0,00991	2		
		Paper Cup	Paper	0,02602	9,1		0,277
	B2C		PE	0,04471	0,9		
	B2B	Carboard Box	Cardboard	0,00064	222		0,142
	B2C	Transparent glass	Glass	0,00771	480		3,707
	B2C		Aluminium	0,00991	0,6		
	B2C	Canned tomatoes	Steel	0,03547	44		1,561
	B2B	Wooden Box	Wood	0,00022	800		0,176
Romania	B2C	PET bottle	transparent PET	0,01474	35		0,545
	B2C		Hard plastic	0,01474	2		
	B2C	Printed LDPE bag	LDPE colour	0,00858	5		0,043
	B2B	Stretch film HDPE	HDPE transparent	0,00748	1000		7,480
	B2C	Bioplastic	Bioplastic	0,00858	7		0,060
	B2C	Aluminium Can	Aluminium	0,01474	13		0,192
	B2C	Tray	Aluminium	0,01474	0,07		0,001
	B2C	Thin sheet	Aluminium	0,01474	0,029		0,000
	B2C	Milk box	Paper	0,00858	30		0,356
			PE	0,00858	8		
			Aluminium	0,01474	2		
		Paper Cup	Paper	0,00858	9,1		0,086
	B2C		PE	0,00858	0,9		
	B2B	Carboard Box	Cardboard	0,00748	222		1,661
	B2C	Transparent glass	Glass	0,00946	480		4,550
	B2C		Aluminium	0,01474	0,6		
	B2C	Canned tomatoes	Steel	0,00858	44		0,378
	B2B	Wooden Box	Wood	0,00748	800		5,984
Slovenia	B2C	PET bottle	transparent PET	0,002019	35		0,075
	B2C		Hard plastic	0,002019	2		
	B2C	Printed LDPE bag	LDPE colour	0,002303	5		0,012
	B2B	Stretch film HDPE	HDPE transparent	0,002303	1000		2,303
	B2C	Bioplastic	Bioplastic	0,002303	7		0,016
	B2C	Aluminium Can	Aluminium	0,002019	13		0,026
	B2C	Tray		0,002019	0,07		0,000
	B2C	Thin sheet		0,002019	0,029		0,000
	B2C	Milk box	Paper	0,002303	38		0,088
			Aluminium	0,002019	2		
		Paper Cup	Paper	0,000087	9,1		0,003
	B2C		PE	0,002303	0,9		
	B2B	Carboard Box	Cardboard	0,000087	222		0,019
	B2C	Transparent glass	Glass	0,000063	480		0,031
	B2C		Aluminium	0,002019	0,6		
	B2C	Canned tomatoes	Steel	0,002303	44		0,101
	B2B	Wooden Box	Wood	0,000273	800		0,218
Spain	B2C	PET bottle	transparent PET	0,0385	35	-0,0057	1,493
	B2C		Hard plastic	0,0772	2		
	B2C	Printed LDPE bag	LDPE colour	0,1267	5		0,634
	B2B	Stretch film HDPE	HDPE transparent	0,1267	1000		126,700
	B2C	Bioplastic	Bioplastic	0,0306	7		0,214
	B2C	Aluminium Can	Aluminium	0,006	13		0,078
	B2C	Tray	Aluminium	0,006	0,07		0,000
	B2C	Thin sheet	Aluminium	0,006	0,029		0,000
	B2C	Milk box	Beverage composite carto	0,0654	38		2,497
			Aluminium	0,006	2		
		Paper Cup	Paper with plastic	0,0218	10		0,218
	B2B	Cardboard box	Cardboard	0,0117	222		2,597
	B2C	Transparent glass	Glass	0,003515	480	0,498	2,189
	B2C		Aluminium	0,006	0,6		
	B2C	Canned tomatoes	Steel	0,02	44		0,880

	B2B	Solution 3	Wood	0,0022	800		1,760
Spain (Comerciales)	B2C	PET bottle	transparent PET	0,0017	35	-0,0057	0,063
	B2C		Hard plastic	0,0017	2		
	B2C	Printed LDPE bag	LDPE colour	0,012	5		0,060
	B2B	Stretch film HDPE	HDPE transparent	0,012	1000		12,000
	B2C	Bioplastic	Bioplastic	0,0017	7		0,012
	B2C	Aluminium Can	Aluminium	0,0017	13		0,022
	B2C	Tray	Aluminium	0,0017	0,07		0,000
	B2C	Thin sheet	Aluminium	0,0017	0,029		0,000
	B2C	Milk box	Paper	0,0017	30		0,068
			PE	0,0017	8		
			Aluminium	0,0017	2		
		Paper Cup	Paper	0,0017	9,1		0,017
	B2C		PE	0,0017	0,9		
	B2B	Carboard Box	Cardboard	0,0017	222		0,377
	B2C	Transparent glass	Glass	0,003515	480		1,688
	B2C		Aluminium	0,0017	0,6		
	B2C	Canned tomatoes	Steel	0,0017	44		0,075
	B2B	Wooden Box	Wood	0,0015	800		1,200
Sweden	B2C	PET bottle	transparent PET	0,10353	35		3,831
	B2C		Hard plastic	0,10353	2		
	B2C	Printed LDPE bag	LDPE colour	0,10353	5		0,518
	B2B	Stretch film HDPE	HDPE transparent	0,00174	1000		1,740
	B2C	Bioplastic	Bioplastic	0,10353	7		0,725
	B2C	Aluminium Can	Aluminium	0,09483	13		1,233
	B2C	Tray	Aluminium	0,09483	0,07		0,007
	B2C	Thin sheet	Aluminium	0,09483	0,029		0,003
	B2C	Milk box	Beverage composite carto	0,0609	38		2,504
	B2C		Aluminium	0,09483	2		
	B2C	Paper Cup	Paper	0,0609	10		0,609
	B2B	Carboard Box	Cardboard	0,00087	222		0,193
	B2C	Transparent glass	Glass	0,018096	480		8,743
	B2C		Aluminium	0,09483	0,6		
	B2C	Canned tomatoes	Steel	0,18009	44		7,924
	B2B	Solution 3	Wood	0,000435	800		0,348
UK	B2C	PET bottle	transparent PET	0,00559538	35		0,207
	B2C		Hard plastic	0,00559538	2		
	B2C	Printed LDPE bag	LDPE colour	0,00559538	5		0,028
	B2B	Stretch film HDPE	HDPE transparent	0,00559538	1000		5,595
	B2C	Bioplastic	Bioplastic	0,00559538	7		0,039
	B2C	Aluminium Can	Aluminium	0,00595	13		0,077
	B2C	Tray	Aluminium	0,00595	0,07		0,000
	B2C	Thin sheet	Aluminium	0,00595	0,029		0,000
	B2C	Milk box	Paper	0,00005712	30		0,058
			PE	0,00559538	8		
			Aluminium	0,00595	2		
		Paper Cup	Paper	0,00005712	9,1		0,006
	B2C		PE	0,00559538	0,9		
	B2B	Carboard Box	Cardboard	0,00005712	222		0,013
	B2C	Transparent glass	Glass	0,00707812	480		3,401
	B2C		Aluminium	0,00595	0,6		
	B2C	Canned tomatoes	Steel	0,00042364	44		0,019
	B2B	Wooden Box	Wood	0,0000238	800		0,019

Overview of available recycling rates:

	A	B	C	D	E	F	G	H	I	J
1	Country	Main PRO	Aggregate Fee	Country recycling rate 2024	PRO Recycling Rate 2024	PRO Recycling rate 2023	Country Recycling Rate 2022	PRO Recycling rate 2022	Country recycling rate 2021	comment:
2	Austria*	ARA	37,58	n/a	n/a yet	96,1%	66,2%	90,0%	65,8%	
3	Belgium	VAlipac	10,83	80%	n/a yet	90,90%	80,40%			https://expra.eu/countries/belgium/
4	Belgium	FostPlus	457,63	80%	n/a yet	97%%	80,4%	95,0%	80,4%	https://expra.eu/countries/belgium/
5	Bulgaria	ECOPACK	27,26	n/a yet	n/a yet	59,3%	58,3%	61,0%	n/a	average of all recycling rates for glass, paper, plastics, composites, tinplate and aluminum
6	Cyprus*	GREEN DOT CYPRUS	8,30	73%	n/a yet	89,8%	69,5%	89,0%	63,5%	https://greendot.com.cy/our-company/annual-reports/
7	Czech Republic	EKO-COM	17,22	86%	86%	86,0%	70,8%	68,0%	69,1%	https://expra.eu/countries/czech-republic/
8	Denmark			49%			64,9%			https://expra.eu/countries/denmark/
9	Estonia	ETO	28,33	62%	n/a yet	57,9%	73,0%	57,8%	70,4%	
10	Finland	FPP	11,29	-	90%	n/a	57,8%	66,0%	72,5%	
11	Finland	Sumi Oy	12,63	-	n/a yet	n/a	57,8%	66,0%		
12	France*	CITEO	88,07	n/a	n/a	n/a	67,2%	65,5%	61,8%	65,5 in 2022: https://www.citeo.com/why-join-citeo 72 % in 2021: https://bo.citeo.com/sites/default/files/2023-02/20220921_RA%20CITEO_GB.pdf
13	Germany*	RECLAY	131,17	n/a yet	n/a yet	country: 90%	68,5%		67,9%	67,5 % in 2022 for plastics: https://www.umweltbundesamt.de/presse/pressemitteilungen/aktuelle-re
14	Germany*	BellandVision	141,46	n/a yet	n/a yet	country: 90%	68,5%			
15	Greece	HERRCo	15,96	49%	n/a	n/a	43%	n/a	n/a	https://expra.eu/countries/greece/
16	Ireland	Repak	19,08	n/a yet	n/a yet	n/a yet	62%	63,0%		
17	Italy	CONAI	26,46	80%		73,3%	71,9%	73,3%	72,9%	https://expra.eu/countries/italy/
18	Luxembourg	VALORLUX	9,16	n/a yet	n/a yet	71,3%	63,7%	n/a	73,7%	
19	Macedonia	PAKOMAK	10,52		n/a	n/a	n/a	n/a	40,9%	https://www.oecd.org/content/dam/oecd/en/publications/reports/2024/03/a-roadmap-towards-circ
20	Malta	GreenPak	24,13				31,8%			last rate 2012: 58,39 % recycled, https://expra.eu/countries/malta/
21	Netherlands*	Verpact	151,05		n	88,0%	75,2%	88,0%	76,8%	88% for 2022: https://www.verpact.nl/en/node/390
22	Poland	Rekopak		around 73			64,0%			
23	Portugal*	SPV	10,30				61,1%	n/a		
24	Romania	ECO-ROM	21,33				37,3%	63,0%	country:38,31%	
25	Slovenia	SLOPAK	2,89			79,0%	62,6%	n/a	55,1%	31.510 recycled --> 36.437 put on the market
26	Spain	ECOEMBES	139,26			80,2%	69,4%	80,2%	70,1%	https://expra.eu/countries/spain/
27	Spain	Ecoembes comerciale	15,58				69,4%			
28	Sweden	NPA	28,38	86%		59,6%	66,3%	65,0%	59,6%	https://expra.eu/countries/sweden/
29	UK	VALPAK	12,90	53%		60,9%		n/a	n/a	
30										
31	Source for PRO, if not mentioned otherwise	https://expra.eu/wp-content/uploads/2023/11/EXTERNAL_EXPRA-2023-Brochure-INTERNAL-copia.pdf								
32	Source for country, if not mentioned otherwise	https://ec.europa.eu/eurostat/databrowser/view/env_waspacr/default/table?lang=en&category=env.env_was.env_wasst								