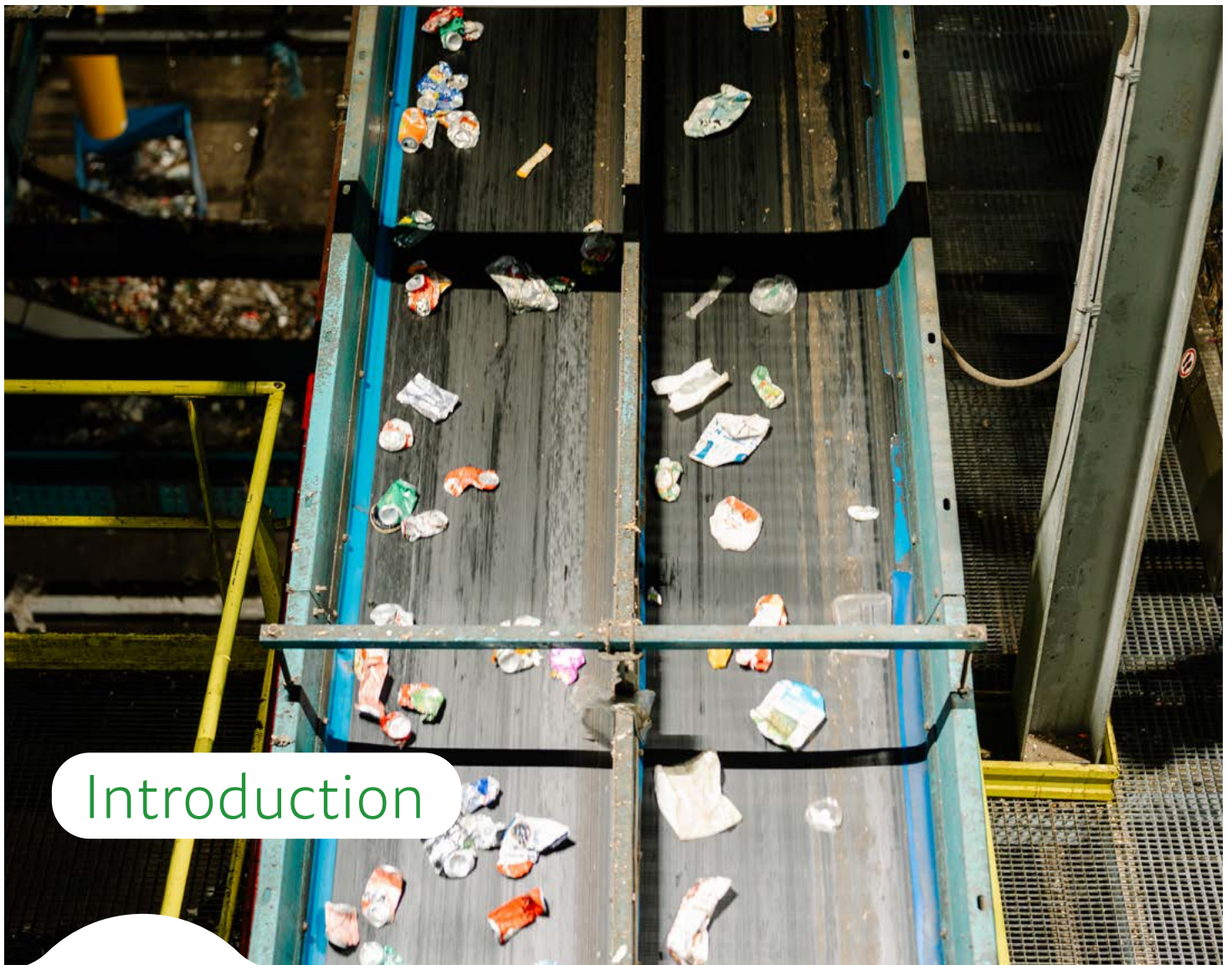


POSITION PAPER

Extended Producer
Responsability as lever
for circularity

Lessons from Fost Plus' practice



Introduction

The Packaging and Packaging Waste Regulation (PPWR) imposes binding targets on all EU Member States from 2030 onwards, in areas including recycling, use of recycled materials and recycling at scale. Whether Member States achieve these targets depends to a large extent on how their Extended Producer Responsibility (EPR or PRO – *Producer Responsibility Organisation*) schemes are organised.

A recent EUROPEAN study¹ argues that a unitary EPR organisation for each waste stream offers structural advantages over a competitive model. This is not because the market structure in itself makes a difference, but because a single-PRO model makes for easier, quicker and cheaper design choices that do turn out to be decisive across the board: **eco-modulation, national coverage, sorting infrastructure and financial transparency**.

In this *position paper*, we use specific examples and figures to look in more detail at how Fost Plus, as a single PRO and European leader in recycling, incorporates these four design choices within its operations. We also identify the challenges that require further action as we look towards 2030.

Strengths of the Belgian system

Granular eco-modulation: a financial incentive

Fost Plus applies one of the most detailed eco-modulation rates in the EU: 16 separate subcategories for plastic packaging alone, each with its own rate per kilogram, ranging from €0.36/kg for transparent, clear PET bottles and flasks to €2.14/kg for 'other plastic films'² and a deterrent rate of €4.40/kg for non-recyclable plastic packaging. **This classification scheme rewards packaging that is easily recyclable and compatible with the realities of sorting and recycling.**

The EUROPEN study shows that the granularity of eco-modulation is the best predictor of recycling performance³. It is important to note that this level of granularity is only cost-effective if it matches the operational costs required to actually separate and process the various material streams. A unified EPR organisation that provides centralised control over the whole collection and sorting process (see higher), is inherently better placed to coordinate this than a group of competing operators where each one applies its own pricing structure and enters into separate contracts with operators.

100% national coverage: one sorting message and one collection method

Fost Plus guarantees 100% population coverage in both urban and rural areas, with standardised sorting rules for the whole country. To achieve this, Fost Plus enters into contracts with each of the 36 intermunicipal associations in Belgium. They organise waste management on site and Fost Plus reimburses them for the packaging fractions. **Centralised contract management provides a guarantee of high-quality collected materials.**



The EUROPEN study quantifies the importance of geographical coverage⁴: the 'rural divide' (weaker coverage in rural areas than in urban areas) is one of the greatest performance disparities identified by the study across the EU. Having a single consistent message about sorting, regardless of where in the country a consumer lives, also lowers barriers to correct sorting behaviour and improves the quality of sorting at source.

However, that does not mean that Fost Plus does not see qualitative or quantitative differences in waste collection between urban and rural areas. Paradoxically, the trend in Belgium is reversed. Rural areas with a higher concentration of traditional (whether blended or not) two-parent families with more living space generally perform better than urban areas, where there is less space for selective sorting bins, higher population turnover and a higher proportion of single-parent families. The language barrier and greater cultural diversity in a metropolitan context undoubtedly play a part as well.

1 EPR system performance in the European Union (2026), commissioned by EUROPEN and CIRCPACK (Veolia) based on Eurostat Packaging waste statistics (2023 reporting period), PRO published financial and operational reports and CIRCPACK datasets on material-specific recycling rates.

2 Fost Plus EPR packaging rates 2027.

3 Countries with granular, size-specific rates achieve an average recycling rate of 73.9%, compared with 64.5% for systems with an 'advanced' bonus-malus model and 57.4% for systems with weight-based rates only (Eurostat, 2023).

Robust sorting infrastructure: 16 material streams from the PMD bag

Between 2019 and 2021, Fost Plus expanded its sorting message for plastic packaging. Since then, not only plastic bottles and flasks, but virtually all plastic packaging has been collected separately via the PMD bag. The decision to do this has reduced material loss and enabled more granular separation of plastic types. The number of sorting streams for plastic as a material type has risen from four to no fewer than eleven. This thorough sorting process has a huge impact on the quality of the recycled material. **Cleaner inputs (per polymer) into the recycling process lead to cleaner outputs and make more applications possible.**

Meanwhile, the sorting infrastructure has been further expanded to include technology for capturing small aluminium items. Aluminium beverage capsules have been included in this category since 2023, in preparation for their new status as packaging under the PPWR.



This type of infrastructure investment, which is rolled out nationwide on a single timeline and follows a single set of specifications across all six sorting centres, requires central coordination. In a single-PRO model, this decision can be made and funded in a single place; in a competitive market with multiple operators, the same roll-out has to be coordinated between competitors with differing interests. This generally slows down the speed and consistency of such investments.

Financial transparency

High-performance EPR systems provide transparency regarding the use of EPR rates, from collection to processing. The same is true in Belgium. Fost Plus achieves the maximum score (6 out of 6) on the transparency index of the EUROPEN study – coverage, methodological transparency and reporting frequency are all complete.

Systems that score 'high' on this index recycle 13.4% more on average than systems that score 'low' (69.6% compared with 56.2%). Even more striking: the EUROPEN study finds that, across virtually the whole EU, financial transparency does not go beyond the PRO itself. What happens to EPR revenue after it has been paid to waste management organisations (intermunicipal bodies, sorting centres, processors) is usually not transparent.

Belgium is the explicit exception to this: formal contracts between Fost Plus and the intermunicipal associations link payments to service standards and material specifications. As a result there is a clearly visible and contractually agreed link between recycling results and financial remuneration.

This form of traceability 'from collection to processing' is generally easier to achieve within a single EPR organisation with a limited number of contractual relationships rather than in a market with several competing PROs that each negotiate separately with waste management operators.

⁴ Systems with widespread, consistent selective collection in rural areas consistently achieve higher recycling rates: an average of 82.6% for glass and 76.6% for metal, compared with 70.0% and 68.8% respectively in systems with more limited networks (Eurostat, 2023).

Hurdles already passed

The Belgian system has both structural strengths and a track record of targeted investment to address bottlenecks.



Collection and recycling of flexible plastic packaging

Fost Plus reports a recycling rate of 76% for flexible plastic packaging for 2025. This is considerably higher than the EU average of 13.1% recorded by the EUROPEN study for 2023. This discrepancy makes sense: **between 2023 and 2025, Belgium has strongly emphasised comprehensive sorting guidelines for plastic packaging, with flexible packaging at the top of the list.**

Collection and sorting are the first steps. That leaves the reintegration of recycled films into new (food) packaging. Belgium leads the way in Europe in this area, with both scaling up of chemical recycling and pilot projects for advanced sorting based on digital watermarks.

The missing link: PolyAl recycling

PolyAl is the layer of plastic and aluminium that remains after drinks cartons have been recycled. Beverage cartons undergo a specific recycling process that is different from standard paper and cardboard recycling: their composition means that they remain in the pulper for longer. The high-

quality fibres are recovered and reused. However, the recycling of PolyAl, which accounts for around 25% of the weight of a drinks carton, required an additional step, and not all recyclers were able to achieve this. With a recycling rate of 77% (Fost Plus, 2025), Belgium achieves impressive results – although these results are still lower than for other packaging materials.

The challenge today is to ensure continuity. Between 2024 and 2025, Belgium again recorded a fall of four percentage points (from 81% to 77% respectively), due to limited outlets for recycled PolyAl.



Design-for-Recycling initiatives are stalling due to uncertainty

Support by PROs for 'design for recycling', usually through eco-modulation, has a clear impact on the recyclability of packaging. At the same time, its full effects are only realised when this is matched by actual physical processing capacity (see higher).

Between 2019 and 2024, the proportion of non-recyclable packaging on the shelves of stores in Belgium fell from 20 kt to 7 kt. This is the result of a two-pronged approach: eco-modulation to

encourage the use of easily recyclable packaging (see higher), together with providing advice and expertise to members. This is where Fost Plus stands out: **in addition to its financial and operational role, the EPR organisation has a committed team to partner with its member companies for optimisation and adaptation of packaging.**

In 2025, however, these efforts have slowed significantly. Article 6 of the PPWR stipulates that, from 1 January 2030, packaging must achieve at least recyclability class A, B or C, with a 'recycled-at-scale' assessment from 2035 and a tightening of the requirements to only A or B from 2038. These regulations transform national recyclability guidelines into binding, EU-wide market access criteria. This explains why companies are currently being cautious about new design processes until the implementing provisions have been finalised.

Investing in plastic recycling capacity

Between 2020 and 2021, Fost Plus signed recycling contracts with no fewer than six new recycling plants for plastic packaging materials in Belgium. **The aim was to increase local plastics processing capacity from a level of just 9% at the time to 75%. Recycling close to home requires less transport, creates local, sustainable jobs and makes high-quality recycled material available to the local manufacturing industry.** By the end of 2026, all six sites will be operational. Centralised contract management offers recyclers a guaranteed supply that meets a fixed quality standard over a nine-year term. This provides certainty for investment and a framework that allows them to cope with market fluctuations.

In addition, Belgium's processing capacity exceeds its domestic collection, making the country a net importer of plastic packaging materials from neighbouring countries. We are now already seeing the opposite trend, for example in drinks cartons. This reflects the effective functioning of the internal European market in secondary raw materials: capacity and raw material streams are coordinated across borders.



The EUROPEN study identifies the lack of physical sorting and processing capacity as the largest remaining EU-wide bottleneck facing recycling at scale. Not a single packaging category is currently on track to meet the PPWR targets in all 27 Member States; flexible plastics are the most striking example of this, with the lowest recycling rate of any category and virtually non-existent processing capacity in most Member States.

Belgium is the exception to this (see higher). This does, however, entail a risk. Packaging materials that do not meet the threshold for large-scale recycling will be banned from the market. As the top pupil in the class, Belgium therefore advocates taking the national context into account so that the baby is not thrown out with the proverbial bath water.

Remaining challenges

Consumer confusion: acceptance without actual recycling

A (limited) proportion of the packaging that can go into the PMD bag cannot, in practice, adequately be sorted and/or recycled. There are two distinct mechanisms that account for this.

- Firstly, some types of packaging that cannot be processed due to the combination of materials or colours involved, such as multi-material pouches and some black packaging (carbon black is not recognised by the infrared cameras).
- Secondly, there are some types of packaging that are recyclable in principle but are not designed for the existing recycling chain, such as certain packaging made from biodegradable plastics. These disrupt the quality of classic plastic streams when they end up in them, but are not accepted in compostable fractions neither.

In a nutshell, the existence of a collection stream does not necessarily mean that recycling actually takes place. This poses a real risk to public support: if consumers sort their waste correctly but it is not actually recycled, this undermines confidence in the sorting message itself.

Recycling at scale for PS, XPS and EPS

The recycling rate for polystyrene is 32% (Fost Plus, 2025) – well below the 55% threshold for recyclability at scale by 2035 set out in Article 6 of the PPWR. 'Recyclability at scale' means that a material is not only theoretically recyclable, but is routinely collected, sorted and processed into new raw materials. It bridges the gap between nationally driven environmentally-friendly design and the industrial reality, which in this case is at the EU level.

There is an additional difficulty for polystyrene: there is not yet a harmonised method for calculating the proportion of recycled material



derived from chemical recycling. Yet chemical recycling is a promising option for meeting the minimum recycled content requirement set out in Article 7 (see higher). Certain materials like polystyrene are at risk of being excluded from the market as a result of this, despite their advantages as materials (particularly in terms of thermoforming and stability).

Recycled content rate

When it comes to the reuse of recycled material in new plastic packaging, the Belgian system has had mixed results. For commercial waste streams, Valipac already provides a financial incentive⁵ for plastic packaging that contains at least 30% recycled material. For household waste, on the other hand, Fost Plus relies on the existing mandatory PCR (Post-Consumer Recycled Content) thresholds for plastic drinks bottles and the future thresholds under the PPWR, rather than on its own rate differentiation.

This creates a challenging situation for long term investments in infrastructure, where capacity risks to precede market demand.

The EUROPEN study notes that the financial incentive provided by PCR-based eco-modulation has the greatest EU-wide impact on streams with stable supply chains for secondary raw materials (particularly PET and PE). In the case of flexible packaging, for example, the distribution chain is still relatively underdeveloped, and in principle this limits the impact of any bonus.

⁵ Via the 'myRecycledContent' bonus (€100/tonne in 2023, doubled to €200/tonne in 2025)



Conclusion

Belgium, with Fost Plus as the EPR organisation for household packaging and Valipac for commercial packaging, achieves the highest recycling rate in the whole EU-27. This is not a coincidence. One of the most striking findings from the EUROPEN study is that systems with a single EPR organisation for each waste stream achieve a higher average recycling rate.⁶ Having a single PRO eliminates fragmented reporting and ensures consistent contract and quality management, as well as standardised material and data streams. As a result, granular eco-modulation, comprehensive coverage, robust sorting infrastructure and financial transparency ‘from collection to processing’ all become key success factors.

It must be admitted that a competitive system with multiple collecting societies could, theoretically, achieve the same level of performance, but only if substantial additional investment is made (a central register, independent oversight, compulsory harmonisation of rates) to compensate for the benefits achieved with a single-PRO model at no extra cost. This additional cost and complexity is precisely the argument in favour of a unitary EPR organisation: the same result can be achieved, but not without a considerable additional investment, which is unnecessary in a single-PRO model.

Fost Plus demonstrates that a single-PRO model is not merely a theoretical advantage: the highest recycling rate in the EU-27, with the highest transparency score, and a series of targeted investments (expanding the sorting campaign to collect flexible packaging, scaling up the recycling of PolyAl, contracting local processing capacity, and establishing *Design-for-Recycling programmes*). This model creates a system in which all the partners are able to play their part and accept their responsibility. At the same time, a number of challenges remain (consumer confusion regarding packaging that is not recyclable but is nevertheless accepted, recycling at scale of polystyrene, and the promotion of PCR). These require further action but precisely within a unified system they can be tackled more quickly and coherently than in a fragmented market.

⁶ 71.8% for single-PRO systems, compared with 62.2% for competitive systems involving multiple EPR organisations and 47.7% for state-run systems (Eurostat, 2023).