

Extended Producer Responsibility - a key enabler and coordinator of the circular economy

Leading a demand-driven transformation

For the circular economy to be truly sustainable, we need to make it demand-driven. Ensuring a better overall business proposition than virgin materials, powered by a pull for recycled content in clearly identified existing and significant new end markets.

Based on a clear understanding of the potential to use recycled materials and in which markets, we can work backwards to further clarify the required scale of mechanical and chemical recycling, sorting capacities and infrastructure – plus the transformation in collection needed to fuel it.

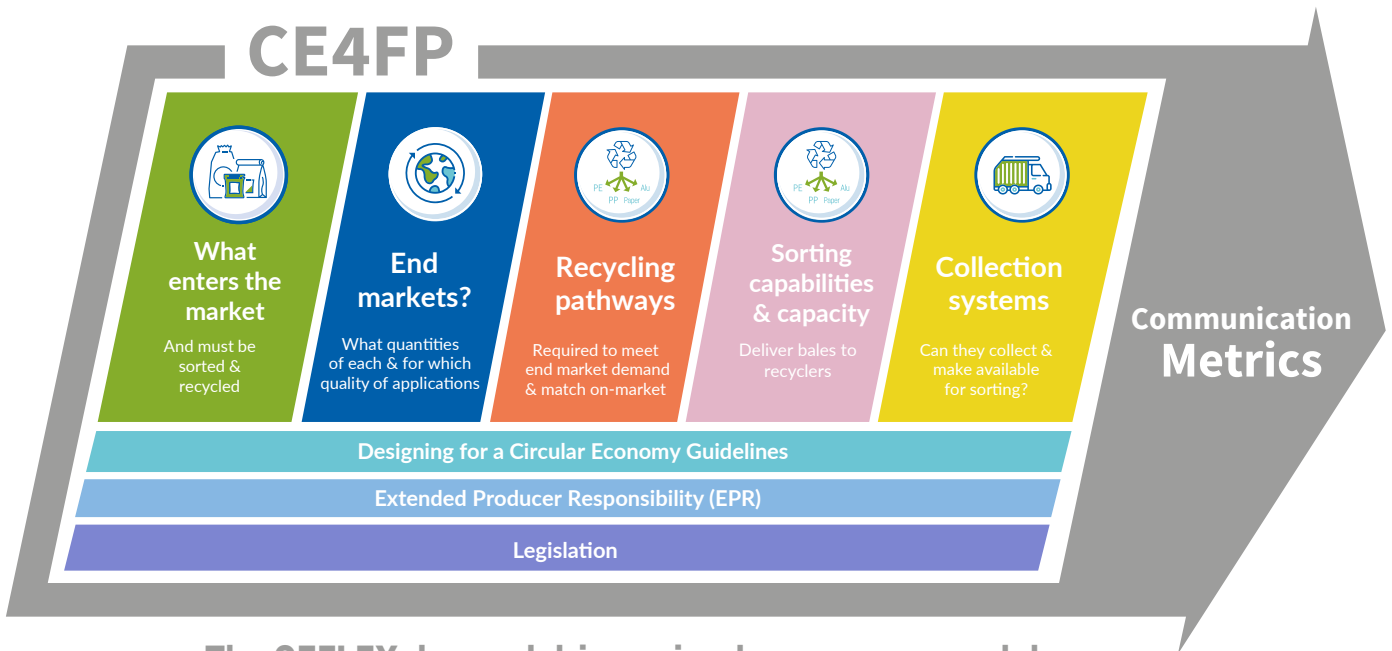
Today, low levels of recycling and the fact that not all material collected is sorted and recycled to be used again indicate the current system and market place is not functioning as it needs to for these materials to go circular.

Design, legislation and EPR are central to enabling and incentivising the appropriate infrastructure – and working together to help ensure recycled materials aligned to market demand are made available at a competitive cost to virgin for similar qualities.



Extended Producer Responsibility (EPR) schemes are a key enabler to make packaging materials circular and economically viable. It is essential they are designed and funded to deliver cost effective collection, sorting and recycling - ensuring recycled packaging materials can be used again and again.

Only EPR schemes can coordinate a system where all materials are captured, recycled and used in a wide range of sustainable end markets independent of their full net cost and recycling targets - and each step in the value chain needs to work with them to deliver the circular economy.



The CEFLEX demand driven circular economy model

EPR designed and funded to deliver circular materials

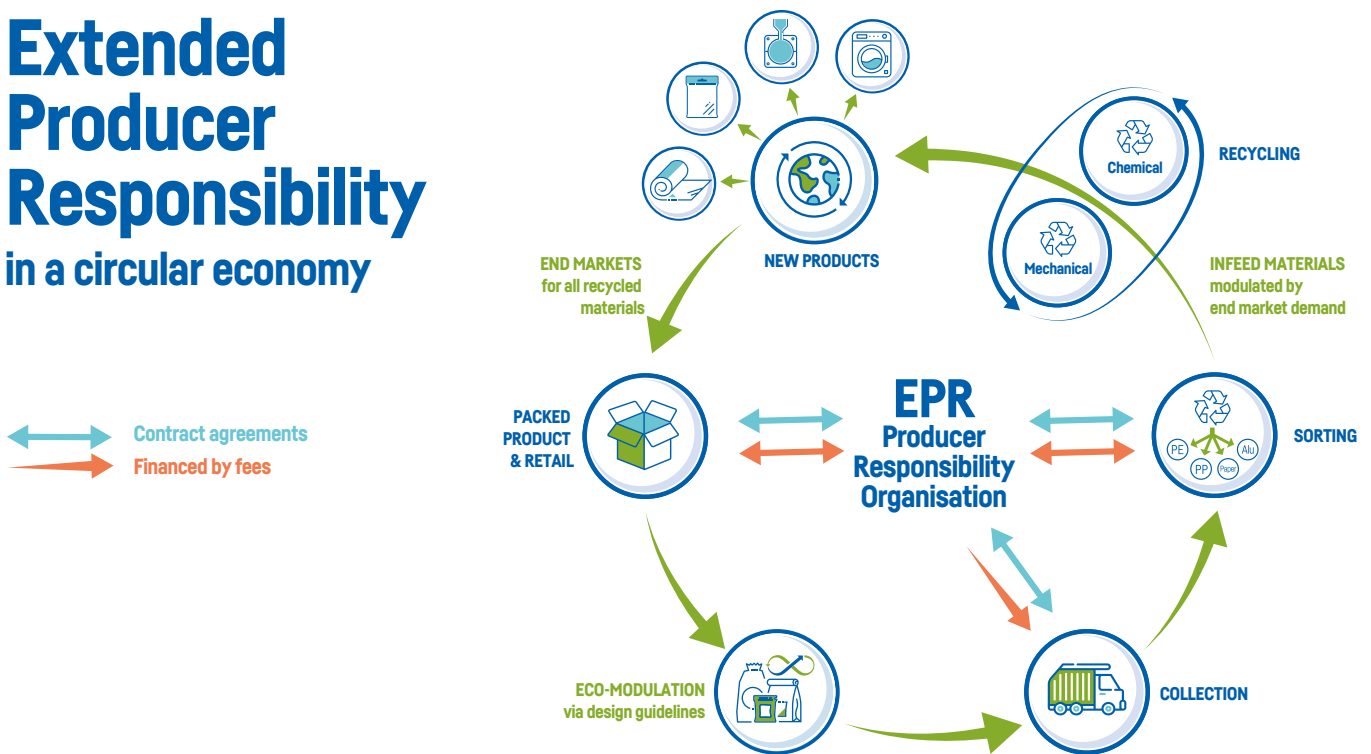
EPR schemes play an essential and substantial role in the collection, sorting and recycling of post-consumer products; coordinating the packaging waste supply chain; as well as financing it. They are a legal requirement in the European Union and most often managed and implemented by 'Producer Responsibility Organisation' (PRO) entities.

Importantly, they are well positioned to take a leading role – able to give the strategic stimulus and direction required to accelerate the circular economy.

This includes shaping collection, rewarding good design for recycling and ensuring sufficient sorting and recycling capacity is available to meet market demand. They can also be important players in stimulating the use of recycled polymer and helping define market dynamics for recycled content through the available quantity and quality of feedstock at a competitive cost.

Today, EPR is primarily defined by a mission to meet legislated recycling targets which have been a measurable indicator for major improvements in a linear approach; but not yet designed to fully embrace and encourage achieving the circular economy.

Extended Producer Responsibility in a circular economy

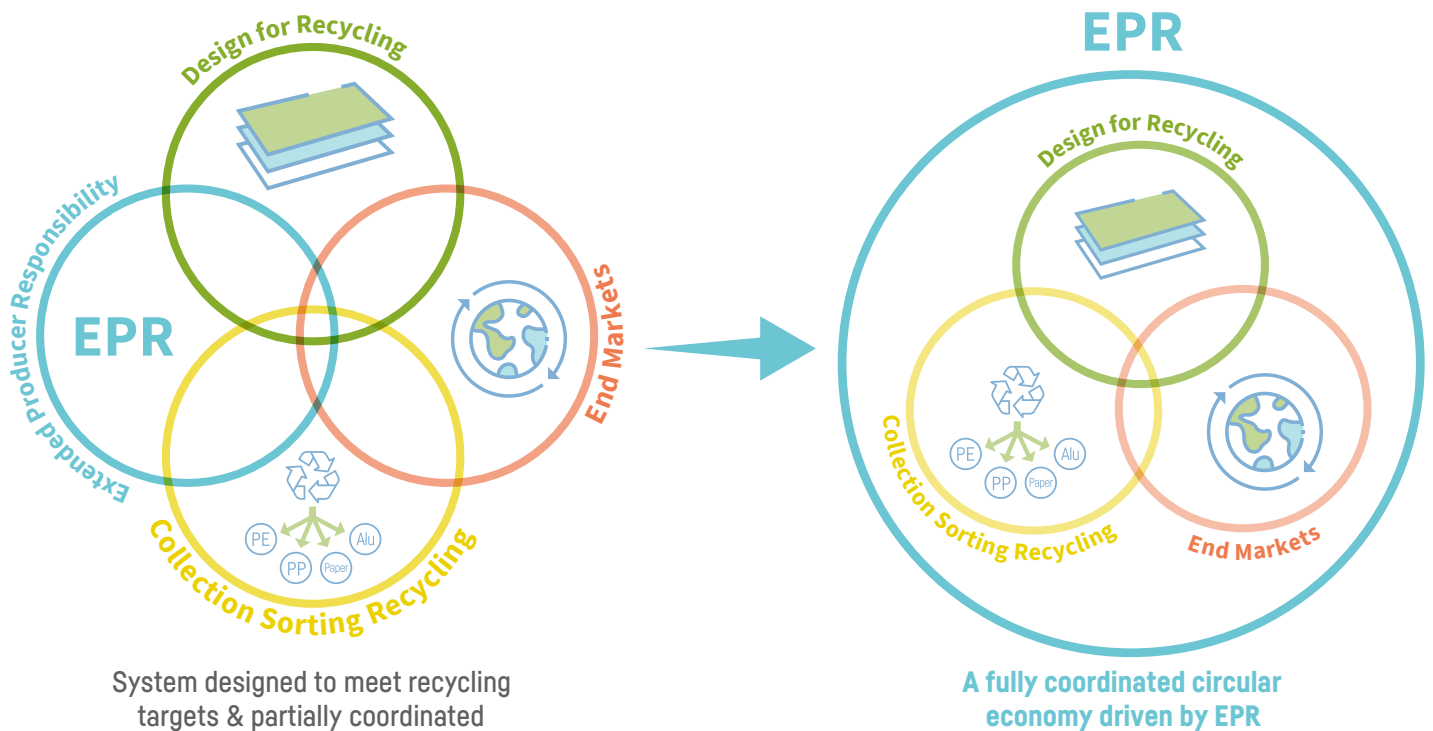


In a circular economy, all materials need to be captured, recycled and used in a wide range of sustainable end markets – independent of cost and recycling targets

EPR can and should adopt a central role, designed to deliver circular materials and to support the development of the circular economy. In an optimal scenario, schemes are:

- ▶ **Fully funded to develop a circular economy:** allowing all packaging materials to be circular, moving beyond a system designed to meet legal recycling targets at managed costs
- ▶ **A coordinating and strategic lead:** ensuring it is sustainable and economically viable for all actors throughout the process
- ▶ **An accelerator for recycled content and sustainable end markets:** able to manage material flows to match end market demand and ensure recycled polymer suitable for use as a replacement for virgin
- ▶ **Able to support investment:** providing guaranteed access to necessary in-feed waste streams and manage risk when developing new technology and capabilities like chemical recycling

EPR systems designed to deliver circular materials and funded accordingly will help create the conditions to allow all parts of the value chain to make the changes necessary to go circular



Role for EPR in the Circular Economy

The CEFLEX EPR Criteria for Circularity in Flexible Packaging

4 key pillars – 1 key requirement

The CEFLEX ‘Criteria for Circularity’ have been developed as a constructive and practical check list. With areas for all stakeholders and EPR schemes to work through on their journey to making packaging waste materials circular.

They are a starting point for discussion and development based on four pillars: operational, financial, communication and governance. These pillars connect and build on existing work from the Consumer Goods Forum and others, adding further perspectives for flexible packaging.

A key requirement for delivering on all four pillars is that flexible packaging is collected for recycling everywhere. And while flexible packaging is made from a range of materials, plastic is predominant and this fuels the criteria’s central objective:

Flexible packaging is collected, sorted and reprocessed to produce a commodity recycled polymer suitable for use as a replacement for virgin materials



OPERATIONAL
collection, sorting, recycling

FINANCIAL
supply chain sustainability

COMMUNICATION
reporting, awareness, messaging

GOVERNANCE
access to expertise and representation

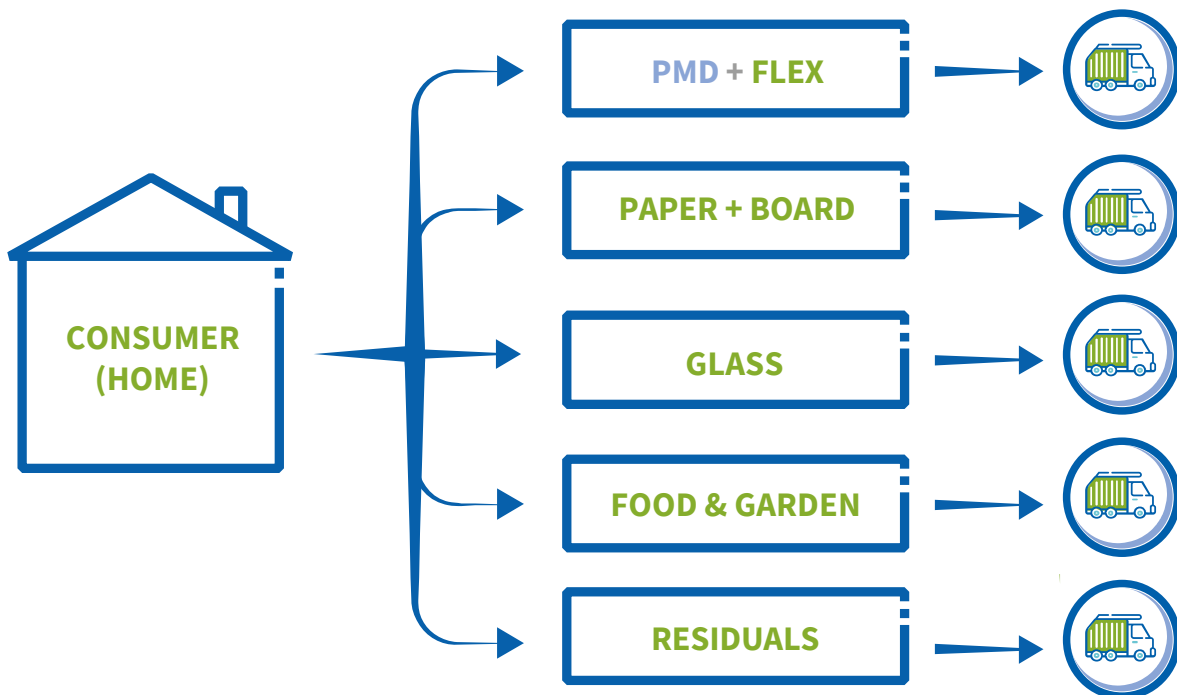


OPERATIONAL : COLLECTION

All flexible packaging is targeted for collection and sorting including on-the-go packaging

All flexible packaging is targeted for collection and sorting across Europe including on the go packaging, with separate collection used, at kerbside where possible:

- ▶ Plastic packaging should be collected as a separate stream or with other light packaging (such as other plastic and metal packaging and drink cartons) and not mixed with paper, board or glass
- ▶ Whilst separate collection should be the primary method used, capturing flexible packaging from residual waste is necessary to access every resource and further optimise separate collection. The separate collection of food and garden waste will help maximise the quality of flexible packaging obtained in this way



PMD = Plastic packaging, Metal packaging, Drinks cartons.

See CEFLEX position statement, 'Collection Systems for Flexible Packaging in a Circular Economy for further reference.



OPERATIONAL : SORTING

EPR contractual arrangements and sorting facilities should maximise the quantity of flexible packaging by setting minimum percentage capture targets. In addition, the quality of outputs from sorting centres should be maximised through EPR control of sorted bale specifications:

- ▶ Sorting to EU standardised bale specifications to facilitate downstream recycling into recyclates of a suitable quality to meet market demand
- ▶ Mechanical recycling to produce recycled polymer for film and injection applications; and
- ▶ Bales optimised by technology for chemical recycling



OPERATIONAL : RECYCLING

Our common goal is to ensure all material is retained in the economy where it is used by existing and new end markets and applications as a replacement to virgin polymer. To achieve this, the range of recyclates produced must be both fit for purpose by quality and commercial value so they are preferred over new virgin fossil-based materials by the market. EPR schemes can support this objective through:

- ▶ EPR contractual arrangements to support the recycling of all consumer flexible packaging fractions and provide for volatile market conditions
- ▶ The mix of recycling pathways should be technology neutral, with mechanical, other physical and chemical recycling required to meet downstream demand for different applications
- ▶ A range of technologies and capacities are required to meet downstream demand for different recyclate qualities while at the same time achieving the lowest overall environmental impact

See CEFLEX position statement, 'Recycling Capabilities for Flexible Packaging in a Circular Economy' for further reference.



FINANCIAL

Fully funded to cover the Full Net Cost of collecting, sorting, recycling and returning the recycled materials to the market

- ▶ Full net costs to cover collection, sorting and recycling by specific formats (e.g., PO flexibles) is key, with no cross subsidy between materials or pack format types
- ▶ Financial transparency on fees and how they relate to full net costs

Financing to create a robust and sustainable market for recycled materials from flexible packaging

Targeted and specific actions to Incentivise demand for recycled content to match supply:

- ▶ Provide stability to support investment decisions in sorting and recycling infrastructure through long-term contracts for infeed materials
- ▶ Fund R&D and communication programs. Mechanisms to facilitate this in a fair way should be in place where there is competition in the EPR market

Rewarding circular design through eco-modulation

- ▶ Recognition of the 'Designing for a Circular Economy' guidelines used by the flexible packaging industry to assess recyclability of consumer flexible packaging and apply them as the basis for eco-modulating fees to recognise and reward good design
- ▶ Fee revenue on packaging formats with no current recycling options used to support innovation and remove barriers to their recycling



COMMUNICATION

Providing consumer guidance and promoting a circular economy for flexible packaging

EPR schemes can reinforce clarity and incite action in the same direction from stakeholders and consumers to create maximum benefit, by:

- ▶ Clear messaging so consumers know to place flexible packaging in recycling containers, through off or on pack labelling for example
- ▶ Consistent consumer and pack design messaging across Europe
- ▶ Reporting on collection, sorting and recycling for all packaging formats - by polymer where possible – and providing transparency of how fees are spent
- ▶ Funding of consumer education and awareness campaigns with an appropriate budget, typically around 5% of packaging fee income
- ▶ Joint funding of anti-littering communication and education campaigns



GOVERNANCE

Representation and access to expertise

An evolving and inclusive governance reflecting a circular economy fully coordinated and driven by EPR with:

- ▶ Scheme representation aligned to reflect financial contributions of the respective actors and representative of the fee contribution from each packaging sector
- ▶ Technical expertise within EPR schemes on consumer flexible packaging collection, sorting and recycling

Who developed the Criteria for Circularity?

A working group of CEFLEX stakeholders, with input from the wider value chain and in direct discussion with EPR schemes have developed the 'Criteria for Circularity'. It is based on four key areas to develop: Operations, Governance, Communication and Finance.

It connects and builds on existing work from the Consumer Goods Forum and others, adding further perspectives for flexible packaging. It is part of a long-standing CEFLEX dialogue on EPR, which is vital to making flexible packaging circular, sustainable and economically viable.

A trusted partner to help accelerate circularity

The CEFLEX Steering Committee has created an EPR Advisory Board to collaboratively identify actions needed to make flexible packaging materials increasingly circular.

A core team and stakeholders in dedicated country teams aim to support EPR systems by match-making important insights from CEFLEX workstreams and identifying and prioritising necessary actions to deliver circular materials.

EPR Criteria for Circularity working group, led by:





EPR Criteria for Circularity checklist for flexibles

All materials captured, recycled and used in a wide range of sustainable end markets – independent of their full net cost and recycling targets

- ▶ **Funding** for flexible packaging collection, sorting, recycling
- ▶ **Eco-modulation** to reward good design and facilitate transition to circular economy system based on recognised design guidelines
- ▶ **An end to cross format subsidies** with fees for full net costs centred on sorting centre outputs
- ▶ **Managed material flows** into sorting and recycling systems to ensure balance with end market demand
- ▶ **Market ready recycled materials** priced competitively against virgin equivalent

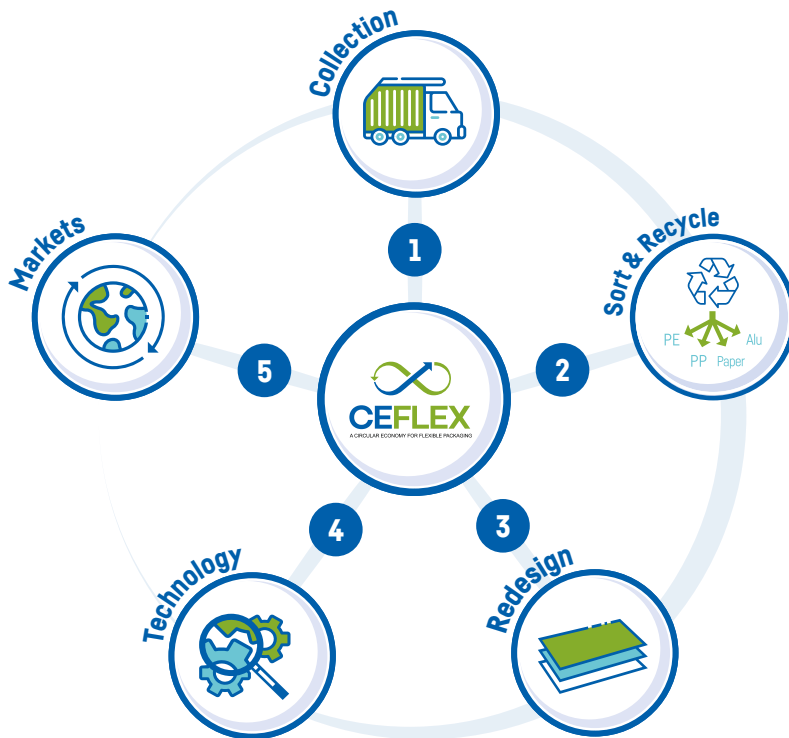
Your CEFLEX contacts to engage and discuss with:

Graham Houlder - graham@ceflex.eu

Mike Jefferson – mike.jefferson@ceflex.eu

EPR and the CEFLEX Roadmap:

Multiple synergies to advance on together



The CEFLEX 5-Step Roadmap

Collection

- ▶ Decisions / influence on material formats collected
- ▶ Influencing municipality decisions on collection systems
- ▶ Communication and education campaigns

End markets for recycled polymer

- ▶ Incentivise recycled content use

Design

- ▶ Eco-modulation of fees

Recycling

- ▶ Defining input specifications
- ▶ Better design for recycling - driven by eco-modulation
- ▶ Contracting of feedstock and commercial terms
- ▶ Some direct recycling activity

Sorting

- ▶ Setting recovery targets for sorting centers
- ▶ Better design for sorting - driven by eco-modulation
- ▶ Bale specifications
- ▶ Design advice to sorting centers / R&D / direct investment

The **Circular Economy for Flexible Packaging (CEFLEX)** initiative is a collaboration of over 180 companies, associations and organisations representing the entire value chain of flexible packaging. Together, we work to make all flexible packaging in Europe circular by 2025.