



Factsheet 13 | How can the market demand for recycled plastics be increased?

This factsheet outlines ways of identifying and approaching suitable markets for recycled materials, and discusses how to use policy instruments to increase market demand. It focuses particularly heavily on obtaining access to financial flows within EPR systems.

The more packaging is collected and recycled worldwide, the more important it becomes to ensure a market for products and packaging made from secondary raw materials exists.

Challenges when trying to generate market demand for recycled plastics

The market for products and packaging made from recycled plastics is limited, despite the fact that many products and packaging items currently made from virgin raw materials could be made partly or entirely from recycled plastic. The main challenges are:

- **Economic issues:** There is a lack of suitable economic incentives to encourage the use of recyclates. Items made from recycled plastics are sometimes even more expensive than items made from virgin material. The raw material is often very cheap (for plastics, prices are dependent on a number of factors, including oil prices) and the cost of obtaining secondary material from plastics is high.
- **Availability and reliability:** Recyclates are often not available in sufficient quality and quantity, and they cannot be produced without effective collection, sorting and recycling systems, such as those supported by EPR schemes. In contrast, large quantities of high-quality virgin raw materials are often available.
- **Acceptance and information:** There is a lack of awareness and acceptance of products made partially or entirely from recycled plastics. This can be seen among private individuals as well in companies and public institutions. Consumers at all levels are often sceptical of the quality of recycled materials, and are concerned that using them may cause environmental and health problems.

- **Administrative barriers:** The use of recycled plastics in certain products is restricted for safety or hygiene reasons.
- **Research and development:** There is a lack of research and development activity aimed at finding new applications for recycled plastics.

Economic challenges and ways to address them

Price is an important factor. The price a recycler receives for recyclates needs to cover the costs associated with all the various steps of the recycling chain (collection, sorting, storage, processing and recycling). This means that prices for recycled goods are more closely connected to the costs of the associated services than they are to raw material prices, which is why some products containing recyclates are actually more expensive than equivalent products made from virgin raw material. EPR systems can play a major role in making recycled products more economically attractive by helping to cover collection and sorting costs. **Financial bonus systems** can also be used to support the use of recyclates, and removing any subsidies for the use of virgin raw materials can have a similar effect.

There are a number of ways of creating economic incentives to encourage the use of recycled plastics. A range of **tax benefits** can potentially be applied to items containing recyclates, and **support programmes** can be set up to encourage the manufacturing and use of recycled products.

Charging modulated fees as part of an EPR system is another useful financial tool. The system operator can set up a bonus/malus system to boost demand for recycled plastics in packaging. Specifically, this means that the obliged producer or importer has to pay lower EPR fees for packaging made from recycled plastics. > See **Factsheet 03** Various different types of packaging can already be made partially or entirely from recycled plastic (see Photo 1).



Photo 1: Bottles made of post-consumer HDPE (Systalen Primus HDPE) (© Der Grüne Punkt Köln 2020)

Availability and reliability

Manufacturers of products containing recyclates need a reliable supply of high-quality recyclates that can compete with equivalent new materials on equal terms. Delivering this material is the responsibility of recyclers.

Ensuring there is a consistent supply of high-quality material available to manufacturers requires close **coordination and clear contractual agreements between all stakeholders at every stage of the supply chain:**



Photo 2: PE regranulates (© Vogt-Plastic GmbH 2020)

- Product specifications and quantities must be clearly stated and agreed between sorting companies and recyclers, along with any other delivery conditions.
- The recyclers need to know the exact composition of the material being fed into the system and be able to rely on the suppliers (i.e. sorting facilities) providing it. They need long-term contracts to encourage them to invest and allow them to operate sustainably over the long term.
- If the recyclers produce regranulates or plastic flakes as an intermediate product, they must meet the customers' specific requirements consistently and reliably.
- Manufacturers of products made from recycled material need a reliable legal framework in which to operate. This framework can be created by implementing appropriate administrative measures.

Checks and verification procedures are essential for maintaining quality and ensuring that all parties are kept properly informed. With this in mind, a variety of national and international **certification schemes** are in place in countries around the world. One European system that is also applied in other parts of the world is the European Certification of Plastic Recyclers scheme, or EuCertPlast.¹

Acceptance and the need to provide information

Adequate information and a guarantee that recycled materials fulfil all the requirements expected of equivalent new materials are key to increasing **acceptance** of products made from recycled plastics. Safety, hygiene and appearance/design are particular concerns for potential customers. **Campaigns to raise public awareness** and **certificates and labels** can both make an important contribution to boosting demand for recycled products. Germany's 'Blue Angel' environmental label is an example of a national labelling system that has been adopted internationally.² For a



¹ <https://www.eucertplast.eu/>

² www.blauer-engel.de/



labelling/certification system to be credible, it must be supported by clear assessment criteria that are easy for consumers to understand.

All that having been said, clear technical specifications agreed upon in a formal contract can also go a long way towards supported demand for recycled materials, even if the products concerned are not certified or labelled in any other way.

Administrative measures

It is very important to ensure there is a market for products containing recycled materials, or that such a market can be established. One way of developing such a market is to **consistently favour recycled products in public procurement procedures** by the state. This kind of policy helps to create the economies of scale needed to develop a market and allows the state to act as a role-model to the private sector.

Many products commonly required by the state are (or can be) made from recycled plastics. A large number of such products have already been tested and carry the Blue Angel quality label, such as:

- Toys made from recycled PE/PP (play towers, seating, climbing frames and climbing walls) for school and nursery playgrounds.
- Containers and bins for waste and recyclables (capacities from 60l to 1100l).
- Products for parks and green areas made of PO, such as ground coverings (grass pavers, planks, decking boards), benches, tables, sandpits, fence slats and posts, composters, benches.
- PO products for gardening and landscaping (beams, boundary stones, palisades, flower pots).
- PO products for the industrial sector (noise insulation, sheet piling, grate floors).
- Carrier bags.
- Rubbish bags.
- Tarpaulins for painters and decorators.
- Buckets.
- Office items (e.g. folders).

Such administrative initiatives can be implemented on a voluntary basis or as a mandatory requirement (e.g. if the government concerned adopts minimum regulations requiring a minimum amount of recycled material to be incorporated into new products and packaging). For example, Article 6 of EU Directive 2019/904 on the reduction of the impact of certain plastic products on the environment states that:

“5. With regard to beverage bottles listed in Part F of the Annex, each Member State shall ensure that:

(a) from 2025, beverage bottles listed in Part F of the Annex which are manufactured from polyethylene terephthalate as the major component (‘PET bottles’) contain at least 25% recycled plastic, calculated as an average for all PET bottles placed on the market on the territory of that Member State; and

(b) from 2030, beverage bottles listed in Part F of the Annex contain at least 30% recycled plastic, calculated as an average for all such beverage bottles placed on the market on the territory of that Member State.”

Research and development

Developing new markets will require further improvements in the quality of recycled materials. Such improvements can be made to processing systems for separating and cleaning the materials, and in the way new products are developed using recycled plastics. Research and development can improve every area of the recycling process, from sorting and processing to recycling processes, raw material production, packaging and product design.

One way of encouraging research and development under an EPR system is to mandate the PRO to invest in it and set relevant targets in this area.

Key readings and other sources



PREVENT Waste Alliance (2021).

Video series:

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<https://www.eucertplast.eu/>

www.blauer-engel.de/

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