

PLASTICS FOR CIRCULAR ECONOMY AND CLIMATE PROTECTION.



October 2021

PLASTICS FOR CIRCULAR ECONOMY AND CLIMATE PROTECTION.

The German plastics industry is committing itself to circular economy and climate protection. The shift towards a circular economy implies major changes in the way we manufacture, utilise and recycle plastic products in the future. At the same time, it offers great opportunities for sustainable growth in our industry. For this change to succeed, a clear commitment to openness in technology and innovation is needed at German and European levels, as well as a legal environment in which investments can be made safely and quickly. This change must happen now.

We are convinced that this is the only way to secure the long-term resources and prosperity in our society. Whether it's energy-efficient construction, e-mobility or food protection – recycled plastics provide the materials our society needs today and will need in the future. They are essential for coping with important challenges such as energy transition, digitalisation, and modern medical technology. Plastic products make an important contribu-

tion to CO₂ reduction through lightweight construction in the field of mobility, preserving fresh food by means of packaging, insulating buildings, and using recyclates.

1 Recycling-friendly product design – a basic requirement

Product design is the first step. Only those products that can be economically recycled using industrial processes can be part of a circular economy. The EU requires all packaging in the European market to be reusable or recyclable by 2030. The German packaging industry has already made considerable investments in product design and is aiming for 90 percent recyclable household packaging by 2025. Significant innovations are currently also being made in the mobility, electrical appliances and construction sector to make the plastics used accessible for high-quality recycling.

2 Improving separate waste collection and separation, tapping into the potential of digitization

The separate collection of plastic waste is an important prerequisite for economical and high-quality recycling. We are therefore committed to further improving the separate collection of household and commercial waste in Germany and Europe, and to establishing a deposit system for beverage bottles throughout Europe.

The mechanical sorting of plastic waste by different plastic fractions is also an important prerequisite for high-quality, unmixed recyclates. Here, on the one hand, existing technical separation solutions must be further developed, and research and development promoted; on the other hand, greater use should be made of digital possibilities.

3 No eco-dumping in exports of used plastics

Exporting plastic waste outside the EU and OECD countries reduces the availability of raw materials in the EU, and will lead to environmental problems if the exports go to countries with lower environmental and occupational health and safety standards and regulations. The plastics industry is in favour of an export ban to countries outside the EU and OECD states if environmental and occupational health and safety regulations applicable in the EU are demonstrably not complied with at the destination point, resulting in the plastic waste not being recycled in the proper manner. At the same time, intra-European shipments should be configured more efficiently, i.e. without excessive requirements regarding the composition of the waste, for example, so that the flow of goods within Europe can be expanded for economic recycling.

4 EU-wide end to landfilling of used plastics

Currently, 7.2 million tons of plastic from municipal waste are landfilled in Europe each year. However, this material is needed to secure raw material flows for plastic products in the future. The plastics industry urges the Commission to close off this cheapest and irresponsible disposal route, and to make it mandatory to end landfilling of all recyclable waste in the EU by 2030 at the latest.

5 Mechanical recycling and chemical recovery processes can complement each other.

Circular economy consists of a variety of different material cycles that complement each other. In addition to the reusable cycle and the established mechanical recycling cycle, material recycling processes also play an important role within the circular economy.

Mechanical recycling is based on the reuse of plastic waste, while material recycling processes break down plastic waste into its chemical components, which are further processed as basic materials, e.g. synthetic oil.

The majority of plastic waste can already be recycled mechanically. In the future, material recycling processes can supplement already established recycling options if they recycle mainly mixed plastic waste, composites, but also heavily contaminated plastics.

The variety of new and existing recycling processes creates the basis for bringing additional recyclates into the market, even in virgin quality, that can also be used in sensitive applications such as the food or medical-technical sectors. The benchmark for the use of the respective recycling process should be a scientifically validated balance of ecological and economic factors.

6 Ways to use more recyclates in plastic products

The use of recyclates in the manufacture of new plastic products closes the material cycle. Currently, the average use of recyclates in plastic products is 14 percent. In order to increase this proportion, it is important to place recyclates at the same level with virgin plastics. There are various measures aimed to increase the proportion of recycled material in plastic products, each of which can be implemented individually or in combination:

a) Product-related use quota

Principle: For certain products, a legally defined minimum quota of recyclates applies (e.g. for beverage bottles). The minimum quotas provide recyclates suppliers with the security of steady demand, thereby contributing to investment security in the waste disposal and recycling industry (pull effect).

b) Polymer-specific substitution quotas

Principle: A legally defined minimum quota of a company's plastics sales must consist of recyclates. This quota must be set according to the type of polymer. The deliberate shortage of virgin plastics on the market makes them more expensive, which increases the demand for recyclates (push effect). The market's self-regulation ensures the uptake of recyclates on the market without detailed product-related legislative specifications.

c) Material-independent CO₂ pricing

Principle: The EU introduces general, material-independent CO₂ pricing. Since recyclates have a better CO₂ balance than primary plastics, their utilisation will therefore be promoted. At the same time, this will be a market

incentive for an energy-efficient closed-loop economy with short transport routes. Material-neutral CO₂ pricing supports fair ecological competition among all materials for the most climate-friendly solution.

d) Financial support for products with recycled content

Principle: The financial support for products with recycled content can be implemented in various ways. In the packaging sector, license fees can be used for this purpose. The EU sets the framework for uniform criteria throughout Europe that favours both recyclability and the use of recyclates in products. This would make non-recyclable products more expensive and create a market incentive for the utilisation of recyclates.

7 Necessary framework conditions for the use of recyclates

a) Product-related utilisation quotas must not lead to product bans

The introduction of product-based recyclates utilisation quotas may lead to supply bottlenecks. As long as the recyclates required by the market are not yet available in sufficient quantity and quality, there is a risk of unintended marketing bans for regulated plastic products. For companies that can prove that they have taken all reasonable steps to procure the recyclates, continued production and marketing must be ensured (safety net).

b) Clear legal definition of recyclates

Recyclates can be obtained from post-use waste (post-consumer recyclates, PCR) or from production waste (post-industrial recyclates, PIR). The reuse of both

PLASTICS FOR CIRCULAR ECONOMY AND CLIMATE PROTECTION.

types of recyclates is in the interest of a circular economy and prevents waste from having to be disposed of elsewhere. The decisive factor in acknowledging recyclates as such is that they are obtained from waste; internally remelted by-products are not recyclates, but a waste prevention measure.

c) Promoting standardization for quality development of plastic recyclates

In Europe, plastic recyclates are mainly produced by medium-sized companies. Each recycler supplies different output qualities depending on the input flow of waste, which makes it difficult to supply the market with large quantities of consistent quality. The manufacturer of plastic products, on the other hand, requires uniform input materials, for example, in order to minimize faulty production batches and to be able to offer a precisely defined product of guaranteed quality. Standardization must enable comprehensive pooling of the purchasing of raw materials to also ensure large quantities of the most consistent possible quality from different suppliers. In addition to improving the characterization of recyclates, standardization must ensure the framework conditions for the recyclable design of plastic products and the use of plastic recyclates in new products.

d) Removing legal hurdles in the use of recyclates

Currently, there are contradictions in the objectives of various regulatory systems. On the one hand, there is a clear push for recycling rates to be increased significantly. On the other hand, regulations and laws or public tenders prevent or slow down the use of recyclates. For example, the use of recyclates in garbage cans and wastewater pipes is prevented. In the area of food applications, there are possibilities for the use of recyclates in PET packaging, but these cannot be transferred to polyolefins because of variations in polymer behaviour. Here, stringent spec-

ifications stand in the way of reviving the circular economy. Some of these regulatory systems require updating to better reflect the current technological status quo and need to be more clearly aligned with environmental policy ideas. This process should be gradual.

e) EU-wide applicability

In order to maintain a single EU internal market, targets for recyclates use must apply across the EU.

8 Encouraging investment in the circular economy

a) Comprehensive modernization of planning laws and expanding renewable energy

In order to achieve the ambitious climate and circular economy policy goals within the set timeframe, approval procedures – especially for circular economy projects – must be reviewed more quickly, legislation pushed through, and supported with tax incentives.

In addition, renewable energy for the circular economy must be significantly expanded. This energy demand of recycling must be reliably and affordably ensured through renewable energy.

b) Setting financial incentives

The shift towards a circular economy for plastics requires significant investment by companies in recycling-friendly designs of plastic products, new materials and machinery. For example, many packaging distributors have set themselves ambitious recycling targets – oftentimes through voluntary commitments – right up to packaging that is fully recyclable and made from recycled plastics.

Above all, it is about stronger financial incentives for the recycling-friendly designing of packaging and use of recy-

pled plastics. Such incentives, especially if uniformly regulated across the EU, would be a real driver of innovation and encourage investment in recycling infrastructure and bring about higher recycling rates.

9 Taking action to protect the environment from plastic waste

a) Protecting the world's oceans

The world's oceans are fragile ecosystems and at the same time the major provider of our natural resources. It is therefore imperative that they are protected. No plastic waste should be allowed to enter the sea. The plastics industry is committed to achieving this goal. The root cause of marine litter is unmonitored landfills and inadequate disposal systems – and it is a global problem. The problem is not the use of plastic products per se, but the inadequate handling of them after their production phase. Consequently, appropriate disposal infrastructures need to be established and used consistently. This includes not only waste collection facilities, but also the waste management industry. A ban on landfills, exporting waste to third countries, and the introduction and further development of deposit systems all play an important role in this regard.

b) Avoiding microplastics as a matter of urgency

Intentionally added microplastics are not acceptable. Unavoidable implementations of microplastics such as tyre and textile abrasion must be reduced to a minimum through technical innovations. This must be distinguished from unintentional implementations of microplastics, for example through the loss of pellets and similar substances. This is where industry measures such as *Operation Clean Sweep* or the Responsible Care practice project *Zero Pellet Loss* by raw material manufacturers and *Zero Granulate Loss* by processors take effect.

PLASTICS FOR CIRCULAR ECONOMY AND CLIMATE PROTECTION.

Solidarity of the plastics and recycling industry

The associations of the plastics industry, the GKV Gesamtverband Kunststoffverarbeitende Industrie (General Association of the Plastics Processing Industry) and its supporting associations, PlasticsEurope Deutschland and the VDMA Plastics and Rubber Machinery Association, as well as the organizations of the waste disposal and recycling industry, BDE and bvse, are positioning themselves jointly towards more circular economy and climate protection. They represent the key players in closing the loop on plastics.

With the joint position paper in favour of a circular economy and climate protection, the associations of plastic manufacturers, the plastic processing industry and plastic machinery manufacturing, the waste disposal industry and plastic recycling are strengthening their cooperation to collate their expertise. Together, the associations are looking forward to promote an open exchange and dialogue on innovation and sustainable development of the plastics industry towards a circular economy. With annual sales of over 100 billion euros, a high export share and its innovative strength, the plastics industry, with its increasingly sustainable orientation, is world leader in the field of high-tech applications.



With an annual turnover of 61.5 billion euros, GKV is the leading organisation of the German plastics processing industry. As its umbrella organisation, it pools the common interests of its member associations AVK (reinforced plastics), FSK (foamed plastics and polyurethanes), IK (plastic packaging), proK (semi-finished products and consumer products made of plastics) and TecPart (technical plastic products).



The VDMA trade association is the conglomeration of more than 200 European plastics and rubber machinery manufacturers.



PlasticsEurope Germany represents the interests of plastic-producing companies, is closely linked to the VCI as a trade association, as well as being part of the pan-European PlasticsEurope association, with offices in several major European economic centres.



The BDE Bundesverband der Deutschen Entsorgungs-, Wasser- und Rohstoffwirtschaft (Federal Association of the German Waste Management, Water and Raw Materials Industry) is Europe's largest association of companies within the private circular economy.



The bvse Bundesverband Sekundärrohstoffe und Entsorgung e.V. (Federal Association for Secondary Raw Materials and Waste Disposal) represents around 980 medium-sized companies in the secondary raw materials, recycling and waste disposal industry, and is part of the European Recycling Industry Council (EuRIC) at European level.



www.bde.de | www.bvse.de | www.gkv.de | www.plasticseurope.org | www.vdma.org