



Contact Dr. Sarah Brückner
Phone +49 69 66 03-1226
E-Mail sarah.brueckner@vdma.org
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Sustainable use of plastics – pro Circular Economy!

VDMA is committed to a functioning Circular Economy for plastic products and is setting an example against littering of plastic waste, as well as the careful use of resources. Plastic products offer great advantages in terms of hygiene, lightweight construction or CO₂ savings during their life cycle. A prerequisite for a Circular Economy is their recyclability after use and reusability in new products.

A functioning market with the use of plastic recyclates is crucial for the success of the Circular Economy. This concerns the quantity, quality and price structure. Today, the market is under pressure as the price of virgin plastic (primary plastic) is volatile and often cheaper than that of recyclates (secondary plastic). The primary plastic price is strongly influenced by the fluctuating oil price. This puts the recycle market under considerable pressure.

An appropriate carbon price could provide a remedy. We are committed to this. The carbon backpack of recyclates is 1.5 to 3.2 t lighter per tonne of plastic, compared to virgin material. If this positive climate balance were included, parity could be established between primary and secondary plastics. This is the market-based instrument of choice but has been remained unconsidered for many years. As long as the carbon price does not take effect, we see the following options for action at the European level:

1. Per use quota for recyclates (product-specific)

As long as price parity between primary and secondary plastics has not been established, a temporary recycle use-quota, differentiated by application, should be considered. This would allow the market to be realigned and the price imbalance between recyclates and virgin materials to be better balanced. The design of the quotas should be gradual and dynamic, beginning with simple applications outside food packaging where standard plastics (PE, PP, PET, PS and PVC) are used. A good starting point could be the non-food packaging sector. A consistently enforced quota regulation will lead to more use of recyclates in the market, despite higher costs and additional effort in processing. At the same time, it will promote the material development of recyclates towards better qualities.

However, it is important that the quota regulation and market surveillance apply throughout Europe and are implemented in a timely manner. The prerequisite is that

the implementation is carried out in a low bureaucratic way and without significant negative economic effects, especially on SMEs and competitiveness.

2. Pro Design for Recycling

Plastic products should be designed in such a way that their recyclability at the end of their life is guaranteed. The aim is to create an awareness for the design of plastic products in such a way, that a clearly defined material separation can be made in the waste stream and thus recyclability can be established. There should be no universal horizontal design rules, rather best-practice-cases should be shared on the market.

3. Pro digital identifiability of end-of-life plastics

A decisive factor in recycling will be the transparency and traceability of plastics over their life cycle. The combination of a recyclable designed product and its digital traceability enables possible material reuse. The digital product passport, if properly designed, can be an approach to a solution here.

4. Pro standardisation of plastic recyclates

Plastic products, regardless of whether they are made from virgin material or recycled material, must meet high quality requirements. It is therefore mostly important to define assured quality standards for recyclates and their reuse. This creates security for industry and confidence for consumers.

5. No unnecessary restrictions on the use of recyclates

Currently, there are contradictions in the objectives of various regulatory systems. On the one hand, recycling rates are to be increased significantly. On the other hand, specific regulations or public tenders prevent or slow down the use of recyclates. For example, the use of recyclates in waste bins and sewage pipes is prevented. In the area of food applications, there are now possibilities for using recycled material in PET packaging, but these cannot be transferred to polyolefins because of the different polymer behaviour. Here, rigid regulations stand in the way of a functioning Circular Economy. Some of these regulations need to be updated to better reflect the state of the art, and at the same time they need to be more aligned with environmental policy ideas. This process should be gradual.

6. Export stop of plastic waste from the EU to third countries with lower environmental requirements

Plastic waste is an important resource and therefore valuable. This resource is the basis for new plastic granulates and thus new plastic products. Exporting this resource diminishes the domestic base and leads to environmental problems if the exports go to countries with lower environmental requirements than in the EU. The foreseen revision of the Waste Shipment Directive can provide solutions here. Therefore, plastic waste should remain in the EU cycle and an export ban should be imposed to countries outside the EU with lower environmental requirements.

7. Plastics for climate

Plastic products help to reduce the carbon footprint in many fields of application, both in the manufacturing as well as in the product life cycle phases. Lightweight plastic components in cars save fuel, building insulation reduces the consumption of heating, packaging prevents the spoilage of food, whose CO2 footprint is particularly large. Plastics contribute to improving the carbon balance and thus create real advantages for climate protection. To make these benefits clear and to be able to contribute even more, transparency and economic incentives are necessary. For the sake of better transparency, standards for the calculation of the carbon footprint should be developed.

VDMA contact

Dr. Sarah Brückner, Waste Treatment and Recycling Technology/Technical, Environmental Affairs and Sustainability 069/6603-1226, sarah.brueckner@vdma.org

Thorsten Kühmann, Plastics and Rubber Machinery/Hybrid Lightweight Technology 069/6603-1831, thorsten.kuehmann@vdma.org

The VDMA represents around 3,300 mainly medium-sized companies in the capital goods industry and is thus the largest industrial association in Europe. The industry is known for its innovation, export orientation, small and medium-sized enterprises and employs around four million people in Europe, more than one million of them in Germany alone.