

Contact Margret Menzel
Phone +49 69 66 03-1897
Fax +49 69 66 03-2897
E-Mail margret.menzel@vdma.org

**Food Processing and
Packaging Machinery**

From linear to circular economy

The aim of a recycling economy is not to dispose of the various materials as waste at the end of their useful life or service life, but to use them again as high-quality materials through intelligent processes. This saves energy and protects resources and the environment.

- **Linear economy: Products are used, thrown away and resources are permanently withdrawn from the economy.**
- **Circular economy: Materials and resources are kept in circulation through continuous recycling.**
- **Circular economy significantly reduces the amount of plastic waste and conserves crude oil**

As the world's population grows, so does the production of the goods needed to supply it. Large quantities of resources are needed to produce them. Our current economy is still often linear: products are used and then thrown away. In this way, the resources used are permanently removed from the economy. This way of doing business contributes significantly to the increasing burden on the environment and climate. In a world with increasingly scarce resources, this is no longer sustainable and a change towards a circular economy is indispensable. The aim of the Circular Economy is to keep valuable materials and resources in circulation by constantly recycling them. This significantly reduces the amount of waste and conserves resources.

One example of how this linear economy becomes a burden on the environment is the production and use of plastics. Plastics are light and very versatile, one reason why there are more and more products made of plastic, especially plastic packaging. The packaging sector accounts for 40 per cent of global plastics demand, followed by the construction sector with a 20 per cent share and the automotive sector with 10 per cent. The remaining quantities are distributed among the electrical and electronics industry, household, leisure and sports, agriculture and other sectors.¹ The question of what happens to plastic products at the end of their respective life cycles has mostly been ignored in recent decades. This also applies to packaging.

Garbage swirls in the oceans, stands polluted with plastic packaging and dead sea animals are the result of this linear economy, in which proper disposal of plastic packaging has not been pursued.

"If we don't change the way we make and use plastics, by 2050 there will be more plastic swimming in our oceans than fish. The only solution is to reduce plastic waste by increasing recycling and reuse,"² said Frans Timmermans, then first Vice-President of the European Commission and now Executive Vice-President and Commissioner for Climate Action, when the Commission presented the plastics strategy in January 2018. This is intended to promote a new, more cycle-oriented business model.

Closed-loop recycling will lead to a significant reduction in the amount of plastic waste and conserve crude oil, the resource needed to manufacture the products. If new products are manufactured from recycled plastic, no new crude oil is needed to produce them.

pack 4 sustainability
by VDMA Food Processing and Packaging Machinery

Please contact for further technical information:
Vera Fritsche, Food Processing and Packaging Machinery
Phone 0049 69 6603-1429, Email: vera.fritsche@vdma.org

¹ Plastics – the Facts, PlasticsEurope, 2018.

² https://ec.europa.eu/germany/news/20180116-plastikstrategie_de