

---

## Doing more with less

Economic growth and increased consumption of consumer products could be expected to increase the weight of packaging that needs to be produced, and eventually disposed of. But thanks to a gradual move towards the use of plastics for packaging these products, in preference to other, heavier materials, for most of the last decade, the weight of packaging used has been held fairly constant.

The packaging of consumer products has seen a change in recent years with plastics progressively replacing other materials. Consumer products are typically found in the supermarket; they include food, toiletries and products for washing and cleaning. The trend has been brought about by a combination of factors. Plastic packaging provides a range of benefits for both producers and consumers. For producers, low production costs, ease of filling and sealing, lower transport costs and attractive displays are important business benefits. And in the highly competitive retail sector, lower costs for producers translate to lower prices for consumers, who also benefit from the light weight, ease of handling, safety and hygiene that plastics provide. For some consumer products, plastic packaging can also serve a dual purpose, for example by incorporating a spray nozzle in the cap of a cleaning material container, or acting as a dosing dispenser for detergent products.



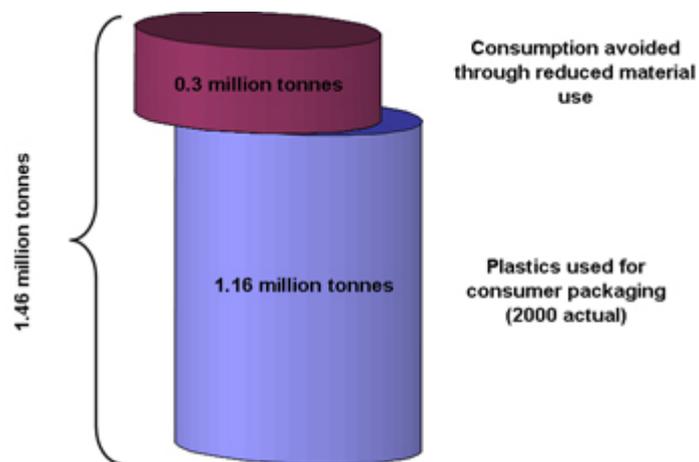
Social trends have also had an impact on the choice of packaging materials. The average size of households is reducing, and daily routines have changed. Families tend to eat together less often, and with increasingly complex lifestyles, people are often obliged to eat at times convenient only to them. And parents who work full time cannot easily prepare a traditional family dinner. These developments have increased the demand for “convenience foods”, often pre-cooked and in single-portion servings.



The combined effect of these changes could be expected to have resulted in a very large increase in the consumption of plastics for packaging of consumer products. But for any given product, the quantity of material used has in fact reduced. This has been achieved by design innovations and thinner cross sections, which in turn have been made possible by the development of new polymer grades that are stronger weight for weight. For example, the average weight of a given area of plastic film used for packaging has been reduced by 36% in the ten-year period from 1991 to 2000. And yet the film is just as strong. Another example is the development of lightweight flexible pouches

to refill rigid plastic detergent containers.

The impact of these efforts on plastics consumption is illustrated here. The data is for Germany, but a similar pattern exists in all European countries. The diagram shows the total plastics consumption that would have occurred in Germany without these innovations, with the top slice showing how much was saved (300,000 tonnes in 2000) as a result of reductions in the weight of plastics packaging over the period 1991 to 2000.



Source: Gesellschaft für Verpackungsmarktforschung - Wiesbaden