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## It's in the bag

Heinz Schmidt-Bachim who lives in Germany has been collecting plastic bags for 27 years. Fascinated by the history of modern times, he saw the plastic bag as a phenomenon that he could not overlook. At first the broom cupboard provided enough storage space, but as his collection grew it took over the cellar. Now he possesses 150,000 bags and has been fortunate to obtain the use of an old air-raid shelter belonging to the school opposite. His fascination led to do an in-depth study, but Schmidt-Bachim was disappointed to find no material on the history of the plastic bag in the local university, and in the end had to do all his own research.

Credit for the invention of the shopping bag goes to Walter H. Deubner who ran a small grocery shop in St. Paul, Minnesota. Back in 1912 he observed that his customers would only buy what they could conveniently carry. So he devised a large, reinforced paper bag which could hold, so the story goes, up to 30 kg of groceries. Deubner sold his bag to his customers for 5 cents (96 cents in today's money).

Fast-forward about 40 years to the starting point of Schmidt-Bachim's research and we see the appearance of the first plastic shopping bag. This had a welded construction and no handles; it was not until the early 1960s that the simple bag that we are familiar with today came into use.

Since then, lightweight plastic bags have been a convenient means of packing up our purchases in the supermarket and bringing them home. Even in the USA, where the large paper bag was dominant and plastic bags were not introduced until the late 1970s, four out of five grocery bags are made of plastic. And used bags are a convenient and hygienic means of collecting small quantities of household, mainly kitchen, refuse.

The story of plastic bags is also one of design. Schmidt-Bachim noticed that some countries, in particular Switzerland and Denmark, had "magically beautiful designs" and that at one time the Swiss food retailer Migros invited artists to design their bags. While he believes there isn't yet a market for rare bags, he possesses one autographed by the famous artist Joseph Beuys that is already worth several thousand euros on the art market.



Life-cycle analysis studies show that plastic shopping bags are among the most resource-efficient of carriers. The plastics industry strongly supports and contributes to efforts to minimise the use of resources, and the plastic shopping bag is a good example. The development of stronger polymers has enabled thinner gauge bags to be just as strong as earlier versions, and used bags typically represent less than 0.5% of domestic waste. Unfortunately, when they are not disposed of properly there can be a

problem of litter. This is a social behaviour issue and the challenge for all of us is to ensure we obtain the benefits from the value of plastic bags in the most appropriate way. *Plastics Europe* recommends a three-pronged approach to tackling the problem of litter:

- Education, communication and partnership
- Law and enforcement
- Waste management and street cleaning

Education and communication programs are needed to increasing knowledge and awareness on the impact and anti-social nature of litter. Regulators need to introduce anti-litter policies and ensure their enforcement. And there need to be adequate waste management systems, covering waste collection and transport to waste treatment facilities.

In some countries that have a major litter problem there has been a progressive trend to limit the use of plastic shopping bags. However, the wider impact of such changes needs to be carefully considered. For example, in Ireland, where a 15 cent levy on free plastic shopping bags has been in place since March 2002, their consumption has decreased by 90%, but over the same period, sales of kitchen tidy bags has increased by 77% and of refuse bags by 54%.



More sustainable use patterns for plastic shopping bags can be achieved while maintaining the benefits of convenience and resource-efficiency they provide. Consumers have varying shopping patterns and the ideal bag will be different at different times: “popping into” the supermarket is somewhat different from doing your main weekly shop. Some supermarkets have recognised this and

offer consumers a choice of either traditional free “use once” bags, or the chance to purchase thicker and larger, reusable bags, which the shop will replace free when damaged and brought back for recycling.

As a further incentive, “points” are awarded to shoppers using the reusable bags with the result that the bag pays for itself after only 10 uses. The pictures show the alternatives available to shoppers, along with the explanatory text printed on the reusable bag.

