

Steel packaging recycling boost

Recycling rates for steel packaging are continuously rising. The latest figures reveal 69% of steel packaging is recycled in Europe, saving 4.8Mt of CO₂ emissions. Thanks to industry efforts the industry surpassed EU directives on recycling back in 2001 – seven years before an EU directive came into force.

THE latest figures from the Association of European Producers of Steel for Packaging (APEAL) shows 69% of steel packaging is recycled in Europe (Fig 1). This represents more than 2.5Mt of food and drinks cans and other steel containers being recycled in 2007, saving 4.8Mt of CO₂ – equivalent to the CO₂ produced by two million cars in the same year.

In 2007, the recycling rate for steel packaging continued to grow throughout Europe rising by 3% from the 2006 total. Top performers were Belgium and Germany where more than 90% of steel packaging was recycled. Switzerland, Austria and the Netherlands follow closely behind, recycling over 80% of their steel containers (Fig 2).

The trend towards increased recycling for steel packaging is confirmed in Central and Eastern Europe: Latvia, Lithuania, Estonia and the Czech Republic all boosted their recycling performance by between 16% and 45%.

The overall 69% recycling figure places recycling rates for steel above those of other packaging materials such as aluminium, plastic, beverage cartons and glass (58%, 19.7%, 32% and 62% respectively) (Fig 3).

Environmentally friendly

Steel is an excellent performer in terms of recycling, being easily collected through a variety of systems. Thanks to its ferro-magnetic properties, steel packaging is easy and cost effective to sort for recycling. Recycling is second nature for steel as recycled materials are an essential part of the



Fig 2 Recycling rate of countries in EU27 (%)

steelmaking process. Steel has an infinite recycling loop – it can be recycled over and over again. Hence, reusing steel for packaging and recycling into new steel is a never ending process. This potential for unlimited recyclability gives steel a huge advantage in terms of sustainability.

By integrating recycled steel into the manufacturing process the industry achieves energy savings of 70% and lowers its output of CO₂. Put simply when it comes to steel for packaging production, the higher the recycling rate, the lower the CO₂ emissions; as recycling goes up, so carbon emissions come down (Fig 4). The industry's CO₂ emissions per tonne of crude steel output are now 50% lower than 40 years ago and the industry is investing to further reduce its environmental footprint. This means that natural resources are saved for future generations and that energy use and CO₂ emissions are reduced. What is more, canning food consumes 30%

less energy than freezing it and is on a par with refrigerated fresh food.

In addition to steel packaging's outstanding recycling performance, it is best in class for safety, protection and conservation, making it a top performer in terms of sustainability. The weight of steel food cans has been reduced by 25% over the past 30 years. Cans use less raw material and are lighter to transport (Fig 5). They are compact and need little additional packaging – all of which have a positive impact on the environment. Steel packaged goods last longer than other materials. A steel can lasts for three years compared to two years for a glass bottle, 18 months for a pouch, 12 months for a carton and four weeks for rigid plastics.

Recycling targets

The European Union's recycling targets are set out by the European Packaging and Packaging Waste Directive.

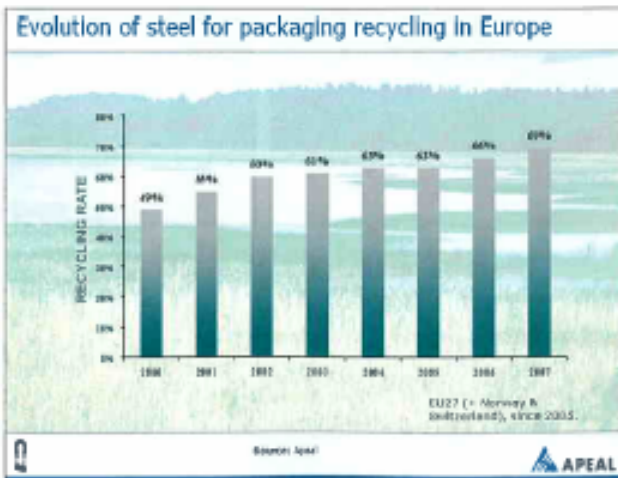


Fig 1 Evolution of steel packaging in Europe 2000-2007

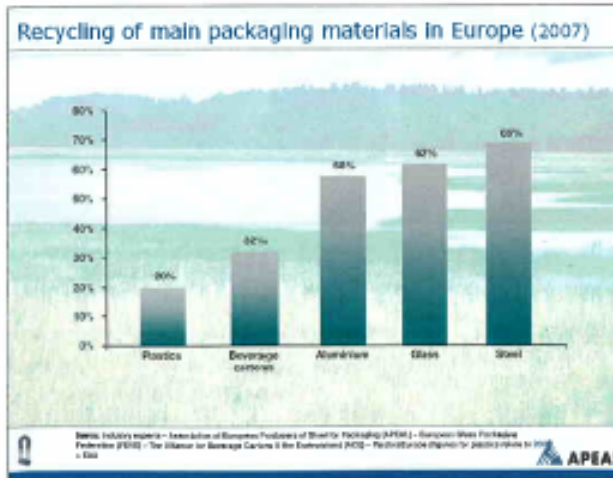


Fig 3 Recycling of packaged materials in Europe 2007

Environment

The directive imposes a number of recycling and recovery targets for its Member States. By 31 December 2008, EU Member States must:

- recover or incinerate a minimum of 60% by weight of packaging waste;
- recycle between 55% and 80% by weight of packaging waste;
- recycle 60% of glass packaging, 60% of paper and board packaging, 50% of metal packaging, 22.5% of plastics and 15% of wood packaging.

- a revision of the Packaging and Packaging Waste Directive is due to be announced in 2012.

Steel packaging alone surpassed the EU's targets for metal packaging recycling in 2001. This accomplishment has been followed by continued progress in recycling rates of steel packaging, reflecting the industry's commitment to reducing its environmental footprint and producing a sustainable packaging solution.

Since the introduction of the EU's

Packaging and Packaging Waste Directive in 1994 more than 46Mt of CO₂ emissions have been saved through recycling steel packaging. The recycling of steel packaging in Europe saves enough energy to power two cities the size of Brussels each year.

"We hope that the standard set by steel for packaging will help to drive further growth in the recycling of all packaging materials across Europe," said Guillaume de Formanoir, APEAL president.

For more information: www.apeal.org ■

The higher the recycling rate, the lower the CO₂ emissions

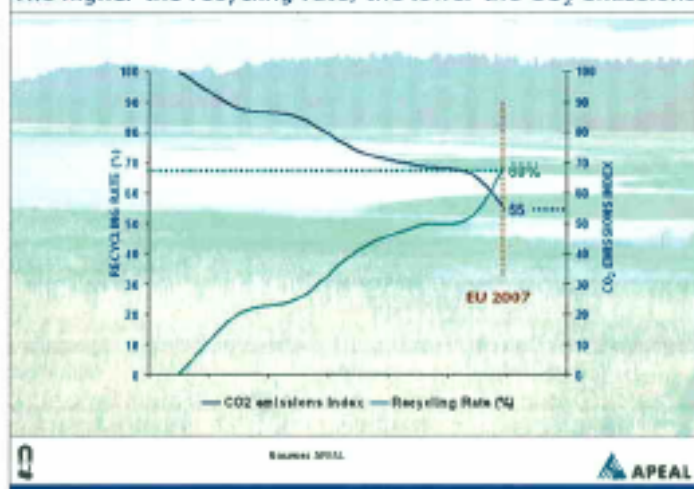


Fig 4 CO₂ emissions compared to recycling rate of EU27

Reduction in carbon footprint due to product design & light-weighting

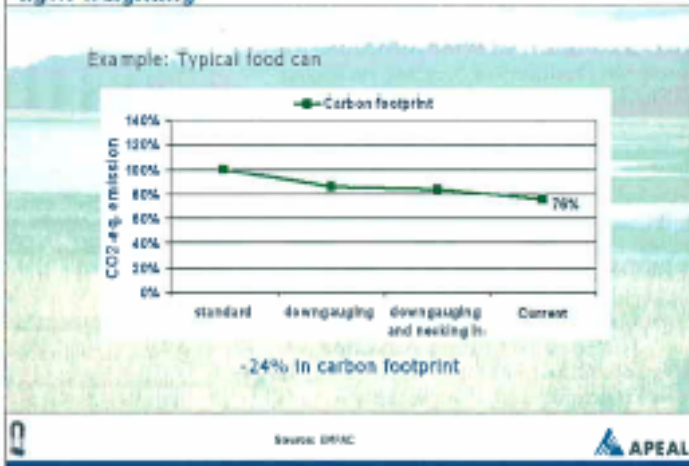


Fig 5 Weight reduction leads to lower CO₂ emissions