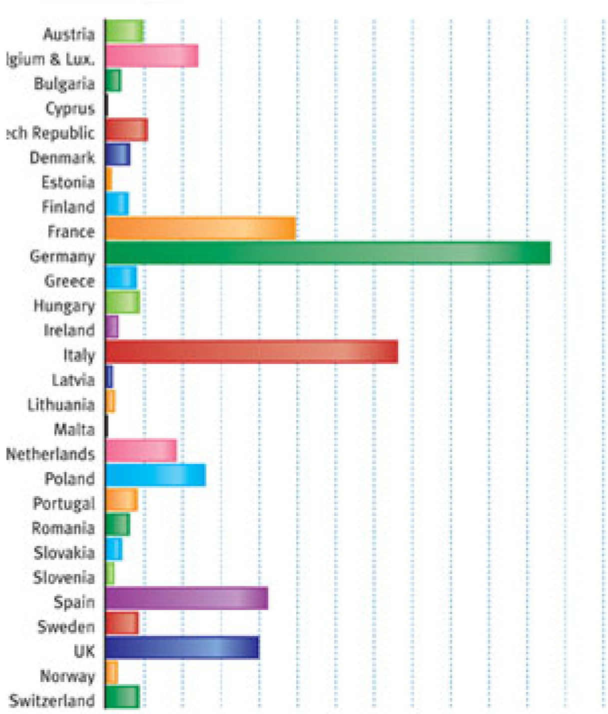
Plastic production 08/09: crisis symptoms or way out?

Global production fell back in 2008 to 245 million tonnes from 260 in 2007 on the back of the financial crisis. The plastics industry experienced a dramatic 3rd and 4th quarter triggered by the economic crisis – more for those serving capital markets and less in daily consumables.

Europe produced 60 million tonnes and remained a major region contributing about 25% of the global total.

The plastics industry – plastic producers, converters and machine manufacturers – have employed 1.6 million people and many times more in industries depending on plastics for their business. The plastics producers and converters also together contributed around 13 billion € in trade surplus to EU27 which helped reduce the 242 billion € trade deficit for the whole industry in 2008.

Plastics production and converter demand



Since 1950, globally there has been an average annual increase in the production and consumption of plastics of around 9%, driven by a track record of continuous innovation. From 1.5Mt in 1950, total global production reached 245 Mt in 2008. This continued growth was reversed in 2008 as a direct consequence of the global financial crisis which has affected virtually all sectors.

Plastic production 08/09: crisis symptoms or way out?

Europe produces approximately 60 million tonnes of plastics, representing 25% of the global plastics production. China 15.0%. This is slightly more than NAFTA (23%).

Plastic production facilities are well placed across Europe. Germany is the major producer, accounting for 7.5% of global production followed by Benelux (4.5%), France (3%), Italy (2%) and the UK and Spain (1.5%). Plastics demand by converters in Europe was 48.5 million tonnes in 2008.

The major countries are Germany and Italy, together accounting for around 40% of the European conversion to plastic products. Of the new member states, Poland has the highest plastic conversion rate of the European total, followed by the Czech Republic at 1.05 million tonnes and Hungary at 0.84 million tonnes.

Plastics trade - strong contributor to European wealth

The plastics industry (polymer producers, converters and machine manufacturers) within the EU27 provide employment to 1.6 million people – 2/3 the number of employees in the automotive sector – and indirectly to many times more in industries which are enabled or depend on plastics for their products.

The plastics industry adds wealth to the EU27 by exporting more in value and volume terms than what is being imported from outside the EU27, both of primary plastics and of converted plastic products (plastics in non-primary forms). This attractive position has been achieved by a constant focus on cost effectiveness, quality management and by embracing new technologies combined with innovation and customer focus.

The trend for both primary plastics and the converted plastics products was down during the fourth quarter 2008 reflecting the beginning of the severe recession in plastics which hit the EU27 plastics industry very heavily. The deterioration has however been reversed in 2009.

If EU27 moves too fast, without consideration of the market impact, in introducing new initiatives, then there is a risk that the strong contribution by the EU27 plastics industry – and indirectly by the many dependent industries mentioned above – will deteriorate over time with job losses and adverse social consequences.

In 2008, the plastics industry created an EU27 trade surplus with non-EU countries worth around 13 billion €.

The strong net export position of the EU27 plastics industry is constantly challenged by international competition.

Many of the progressive legislative initiatives in EU27, which are often in advance of other parts of the world, mean that the plastics industry is often under pressure to be able to remain globally competitive.

Plastic production 08/09: crisis symptoms or way out?

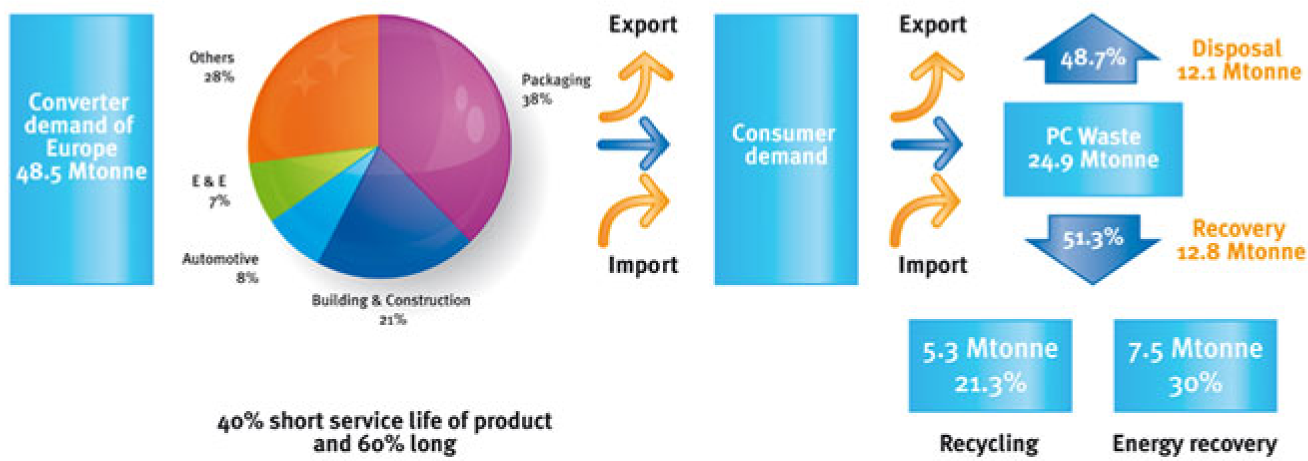
Plastics supply chain from cradle to cradle

The converters used 48.5 million tonnes of plastics in 2008, down 7.5% on 2007. Of all plastics used by consumers, 24.9 million tonnes ended up as post-consumer waste, up from 24.6 million tonnes in 2006. 51.3% of post-consumer used-plastic was recovered and half went to disposal.

Of the 51.3% recovered, 5.3 million tonnes were recycled – as material and feedstock – and 7.5 million tonnes were recovered as energy.

The total material recycling rate of post-consumer plastics in 2008 was 21.3%. Mechanical recycling was at 21% (up 0.9 percentage points over 2007) and feedstock recycling at 0.3 % (unchanged from 2007).

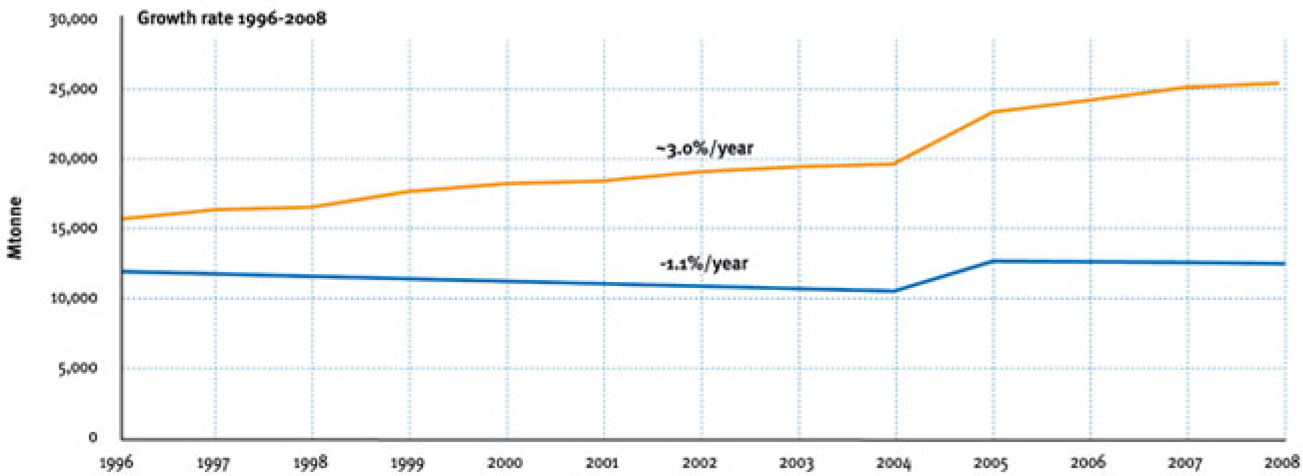
The energy recovery rate increased from 29.2 to 30%. In 2008, 12.1 million tonnes of plastic waste was still wasted on landfills.



Plastics continue to decouple growth in demand from material to landfill.

Despite 3% annual growth in the past decade for post-consumer waste, landfill amounts have remained stable. Graph hereunder shows the history for EU15+NO/CH until 2004 and for EU27+NO/CH from 2005. There are many reasons for the growth of post-consumer plastic waste; plastics continue to replace alternative materials, economic growth drives greater consumption, smaller households require more packaging per person and proportionally more ready-made single-portion meals are consumed.

Plastic production 08/09: crisis symptoms or way out?



Seven of the EU Member States plus Norway and Switzerland recover more than 80% of their used plastics. These countries adopt an integrated resource management strategy using a range of complementary options to address each different waste stream with the best environmental and economic option.

Over the last decade, the average annual growth rate has been about 10%. Mechanical recycling increased by 4.3%, which is down compared to 2007, due to the impact of the financial crisis.

Growth in energy recovery increased 3.6%, up slightly on 2007. More investment in energy recovery facilities is needed to divert streams which cannot be eco-efficiently recycled from landfill.

Energy Waste

Today in Europe 64 Mt of municipal, commercial and industrial waste produce electricity for 7 million households, heat for 13.4 million ones, and reduces CO2 emissions per year by 23 Mt, equivalent to taking 11 million cars off our roads. The EfW route is technically, environmentally and economically fully proven. If Europe used the full potential of its residual waste stream with it, it could bring electricity to 17 million households and heat 24 million ones. The EU member states have a different energy from waste (EfW) attitude. Some have demand and supply in balance, using EfW extensively (Denmark, Germany, Sweden...). Some offer market opportunities for growth but also market barriers (Italy, France, Spain...). Others offer major growth opportunities which require very large investments (Poland, the UK...).

Objectives

Plastic production 08/09: crisis symptoms or way out?

For a forward-looking resource management approach, several measures will have to be taken: the plastics industry all over Europe advocates diversion of plastics waste from landfills. This zero plastics in landfill would translate into an increased energy recovery.

In order to choose the best environmental and economic result in every situation, a use a mix of recovery options has to be considered.

Obviously, the treatment and recovery of waste should meet defined environmental standards.

But all these end-of-life options do not prevent from overall lifecycle impact to be taken into consideration: this is the necessary condition for an optimized resource management.

Source: www.plastics-themag.com