



## EuPR Newsletter

### Plastic Recycling capacity increases

Plans to set up a state-of-the-art recycling facility capable of processing 60,000 tonnes of material annually has been unveiled by new joint venture company MBA Polymers UK. The joint venture company has been formed by US-based plastics recycler MBA Polymers and UK-based European Metal Recycling (EMR). But the UK location of the site - expected to be up and running by early 2009 - has not yet been confirmed and investment figures have also not yet been released.

The joint venture company will be majority owned by MBA Polymers and will recover plastics from upgraded "shredder residue". This comprises a complex plastics rich mix of materials resulting from the recycling of automobiles, appliances and other metal-rich streams.

Dr Michael Biddle, MBA's founder and president, said: "Rather than build expensive and energy-consuming chemical plants, our company provides a way for Europe to manufacture the plastics it needs at significantly lower economic and environmental costs." David Ireland, EMR's director of technical services said: "It is a very significant step not only for EMR and MBA but for the UK too as this investment will allow us to recover the previously untapped plastic resource in the materials we recycle. "Not only will this divert materials from landfill and generate significant CO2 savings but it will also put EMR at the forefront in meeting the very demanding recycling targets set under producer responsibility regimes in vehicle and electronics recycling. "These targets are very exacting and can only be met by applying new technologies to the recovery of plastics. We have been working with MBA for some time on this problem and we are very excited that we have now reached the stage where we can announce our intention to build a plant in the UK"

### New Rules will police scrap business practices

China is the world's largest importer of scrap, but the country has had enough of being a dumping ground.

In response, China's State Environmental Protection Administration (SEPA) has announced tough new measures to screen the scrap that China imports.

SEPA's Wen Yingming told the China Replas conference in Guangzhou, held 5-7 November, that the proposed import laws aim to support legal enterprises while providing a framework to clamp down on illegal activities.

According to the regulations:

- Exporting parties must give a detailed description of the plastics scrap sent to China. Besides imports of scrap for processing, even samples or items for repair must be declared.

- China cannot be used as a dumping ground for unwanted trash. Scrap that only can be disposed of by incineration is banned. China should not be used as a trading centre for scrap. Tax-free ports will be monitored more closely so that only containers with permits can be unloaded.

- The following materials cannot be imported: hazardous/dangerous substances, plastics materials that cannot be safely recycled and types of scrap that are in plentiful sup-

ply in China.

- SEPA will maintain a list of materials or goods that can be imported, outside of which requests will be granted on a case-by-case basis.

- A panel of technical experts will be formed to differentiate scrap, and decide whether imported scrap is trash or a secondary raw material source.

- SEPA now will be the governing body to inspect scrap imports.

- Port control will be tightened. All importers must have permits, which will be applicable to specific ports only.

- Recycling companies have to register with the government.

- Recycling companies, especially the smaller ones, will have to operate within designated industrial parks where recycling activities will be consolidated and strict environment standards can be enforced.

- Recycling companies can only operate with the issuance of permits from ministries or departments of commerce, customs and the environment.

- The government will impose a value-added tax on scrap processed.

- Recycling firms must keep an account of daily operations, including input volume, daily processing and output. Permits to operate a recycling plant are renewed yearly and recyclers found submitting inaccurate information within a three-year period will be suspended.

- Import permits and quotas are non-transferable between companies or people. Doing so constitutes a criminal act and results in a conviction leading to 10-15 days imprisonment or fines, or both.

- People found guilty of trading permits and quotas may be sentenced to imprisonment of five years or more, and/or fined one to three times the value of the permit.

The proposed legislation is awaiting approval by China's Legislative Council, its highest governing body. Experts say that the process is merely a formality and it will likely be put into action on 1 Jan as planned.

### Recycled plastics displayed in EuPC Showroom

EuPR would like to thank Bart Vangorp, EKOL for the items in recycled plastics, that are being displayed in the EuPC Centre.



recycled bench

## Compelling Facts about Plastics 2006

The data collection started in July 2006 by **EuPR**, **EuPC**, **EPRO** and **PlasticsEurope** has been finalized and the results have been published (see **EuPR** website).

2006 was the year when recovery of plastics reached the 50% for the first time. Underpinned by strong growth in mechanical recycling as well as energy recovery resulted in 3% points increase over 2005.

The outcome of this study of all the European plastics value chain are various:

- **Demand growth outpace GDP by 50%**

Plastics demand in EU25+N,CH grew by 4% over 2005, exceeding GDP by 50% to reach 49.5 million tonnes up from 47.5 million tonnes in 2005. Globally demand grew to 245 million tonnes, up from 235 million tonnes in 2005.

- **Plastics are now recovered to 50%**

Half of all post-consumer plastics ending up as waste were recovered either as recycling or as energy recovery. Recycling rates increased to 19.7% and energy recovery rates to 30.3%.

- **Despite quantity of used plastics increased, the amount going to landfill continued to drop**

Driven by economic development and increased substitution by plastics in a range of applications the quantity of post-consumer plastics waste increased by 1 million tonnes- or 4% - over 2005. However thanks to the strong increase in recovery the quantity going to landfill fell by 1%. This confirms the observation since a few years that: *There is decoupling of economic growth and plastics going to landfill.*

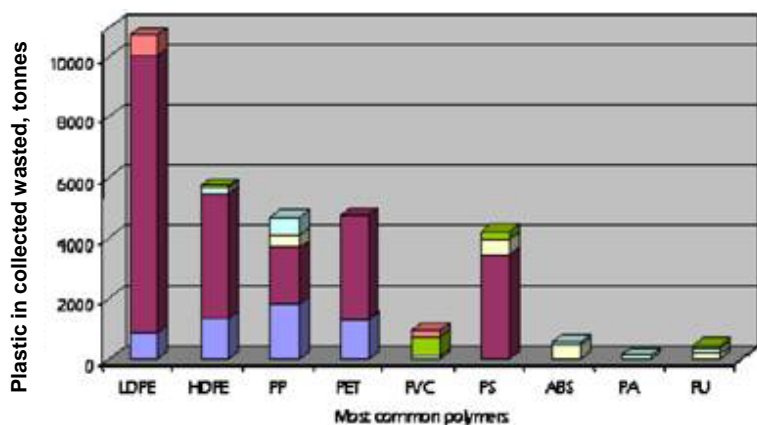
- **Mechanical recycling grew 18%**

Driven by increasing virgin material prices, improved collection and sorting technology, improved schemes and strong demand, mechanical recycling saw an accelerating growth. Compared to the past trend the increase nearly doubled in 2006. Applications driving this growth include traditional streams like bottles and film but also e.g. window profiles. Capacity for closed loop recycling is being installed in a number of countries.

## Joint Research Centre Study

The study published by the Joint Research Centre of the European Commission aims at evaluating the environmental benefits and drawbacks of the several plastics recovery processes and at assessing the possibilities for the environmentally favourable existing and emerging

2015 global plastic waste scenario



Estimated 2005 & 2015 collected waste scenarios per polymer and waste stream

ones to enter the market. In order to achieve this global objective, the survey has started by identifying the most prevalent technologies for plastic recovery at different levels of development.

The main finding presented in this report are summarised in the following:

### *Inventory of plastic waste and environmental ranking of polymers*

In the projections made up to 2015, "LDPE appears as the most abundant polymer in waste, due to its predominance in packaging applications, which account for nearly half the total plastics waste, collected either separately or as part of municipal solid waste. The most outstanding evolutions come from the expected in PP and PET volumes in waste, clearly originated by their increasing use in packaging (PET, PP), but also in sectors such as automotive and electric & electronics (PP).

### *Inventory of recovery technologies and environmental/technical performance assessment*

The following technologies have been assessed: mechanical recycling, feedstock recycling/incineration with energy recovery and energy recovery.

It is found that **mechanical recycling** processes lead to the relatively lowest energy demand and highest CO2 savings, they generate negligible hazardous emissions and low levels of - mostly inert - residues.

Moreover, the lowest overall environmental impact corresponds to a maximum penetration of mechanical recycling, scenario A.

The study concludes that energy and feedstock polymer recovery technologies have a Global Warming potential impact leading to increased emissions of GHG. **Mechanical recycling** has a relatively positive effect in terms of Cumulative Energy Demand, and allows the production of new goods from recycled materials. **Mechanical recycling** also contributes to the reduction of CO2 emissions. The study is available on the **EuPR** website, extranet page for members only: [www.plasticsrecyclers.eu](http://www.plasticsrecyclers.eu)

## Calendar of events

- 19-20 March 2008, MC Meeting, Budapest
- 19-20 March 2008, PET WG, Budapest
- 19-20 March 2008, Film WG, Budapest
- 19-20 June 2008, MC Meeting, Bergamo
- 19-20 June 2008, PET WG, Bergamo
- 19-20 June 2008, PVC WG, Bergamo
- 2-3 September 2008, MC Meeting, Valencia tbc
- 2-3 September 2008, PET WG, Valencia tbc
- 20-21 November 2008, Plastics Recycling Annual Meeting (All WG meetings and EuPR General Assembly), place tbc