



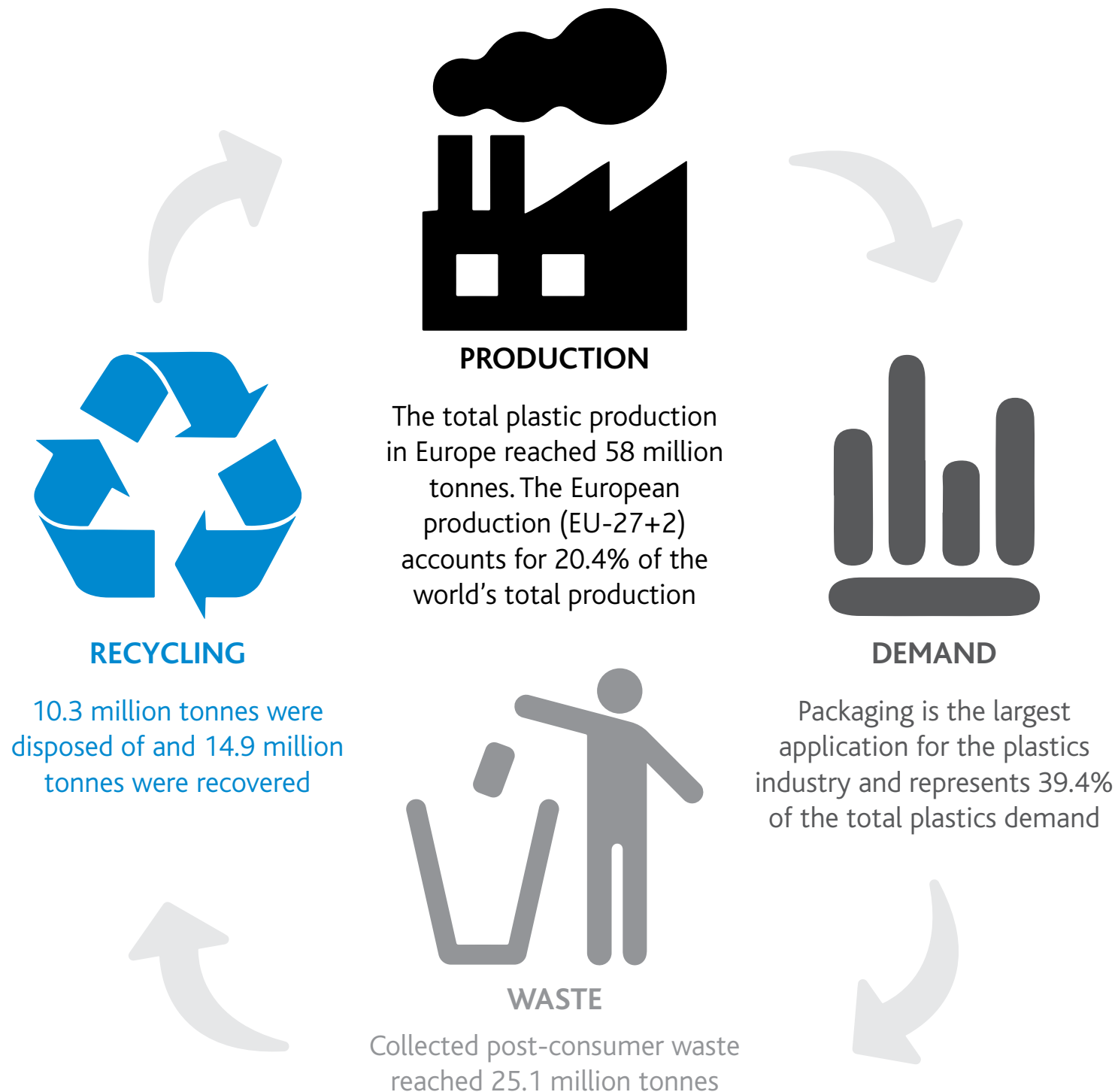
# RECYCLING PLASTICS

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**IS THE UK BEHIND  
THE REST OF EUROPE?**

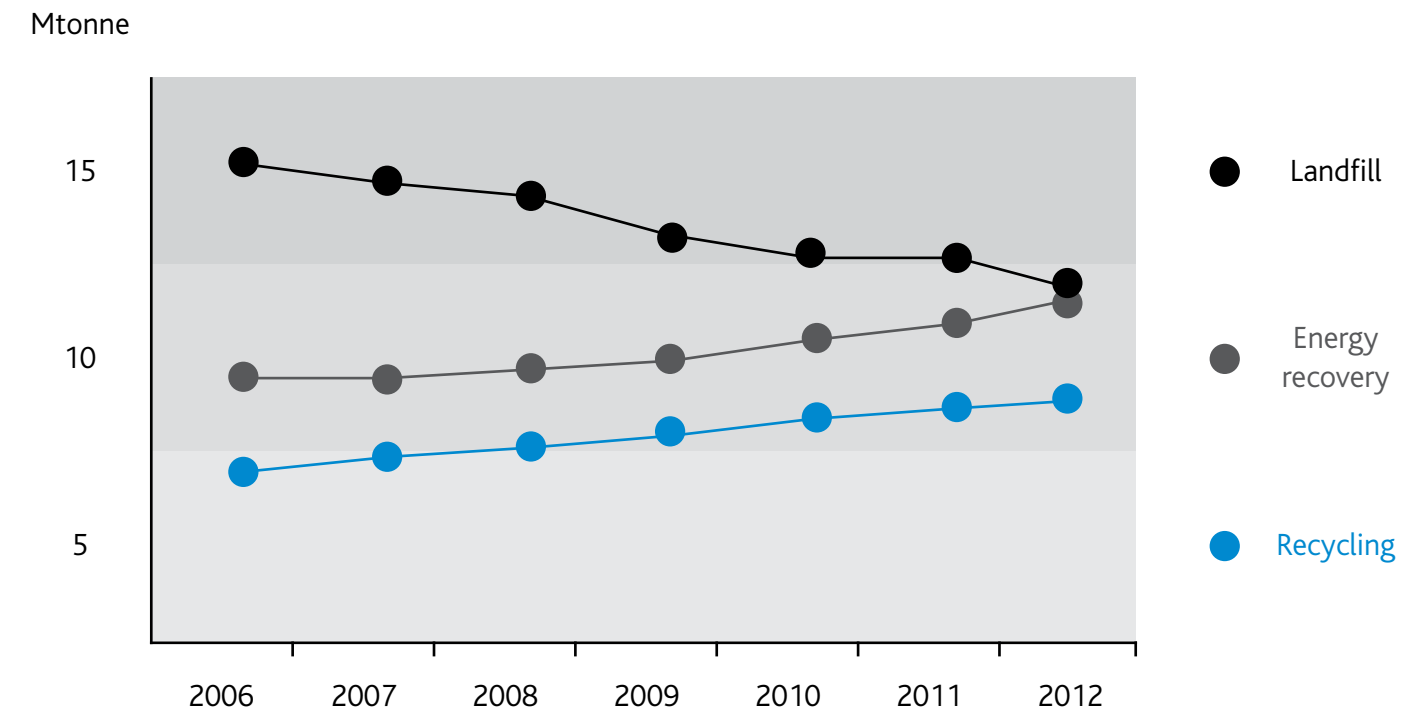
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# OVERVIEW OF EUROPE



## PROGRESS IS BEING MADE

There is a positive trend in the recovery and recycling of plastics over the last 5 years. However, the total amount of post-consumer plastics waste has been increasing and with a disposal rate at 38.1% further action will be needed to reach a zero plastics waste to landfills by 2020 in Europe.



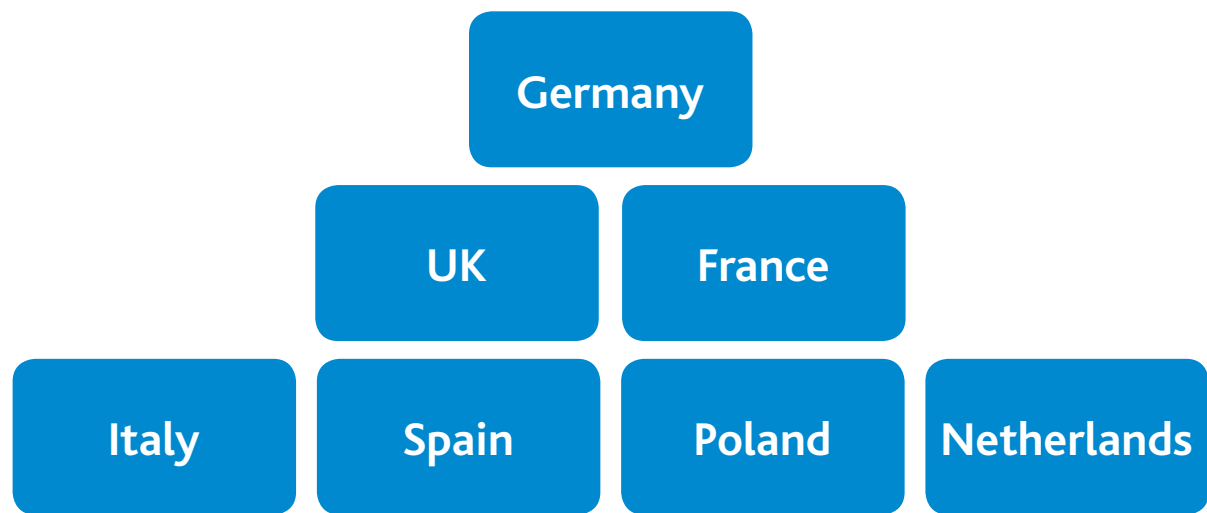
Total plastics waste recycling and recovery 2006-2012

Source: Consultic

## DID YOU KNOW?

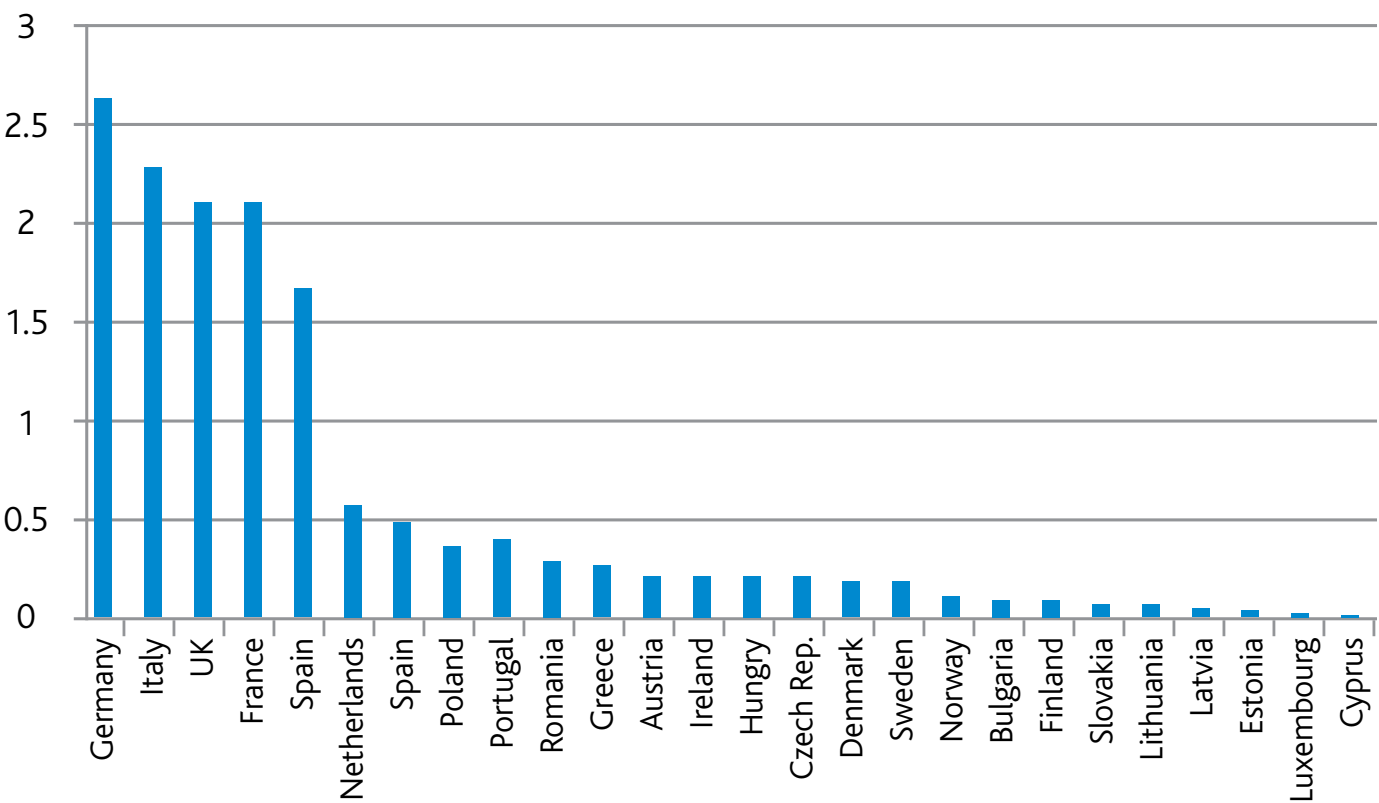
The average weight of individual items of packaging have been decreasing. Drinks bottles made of plastic have dropped in weight by 7.5% and plastic film contains on average 11-15% less material. Despite this, per capita quantities of packaging are increasing across the EU-27 Member States.

# More than three quarters (77%) of the total European plastic waste is generated by seven countries:



Meaning the remaining 22 contribute just 23% of the overall total. These largest contributors must take the lead in order for the goal to be reached in a meaningful way.

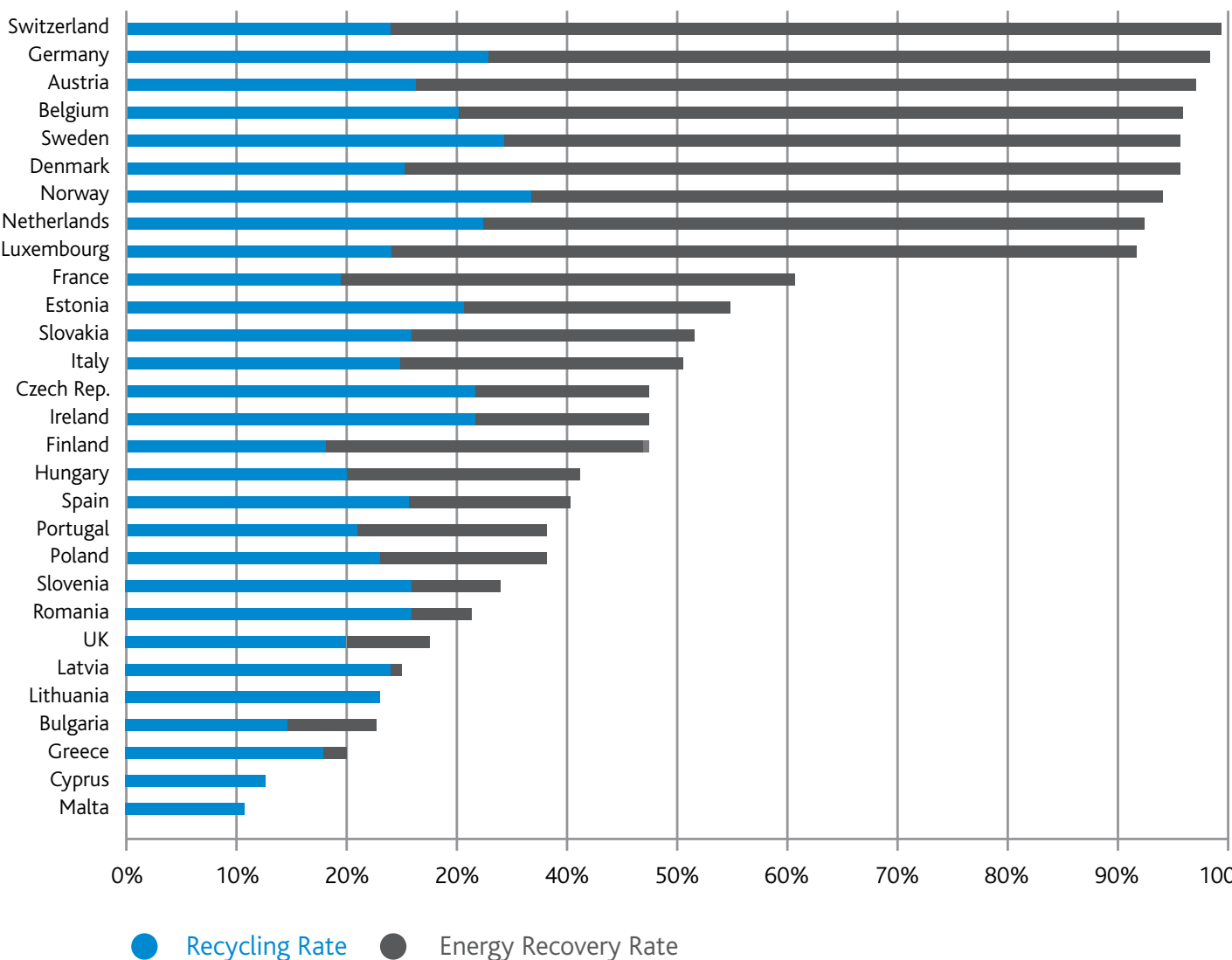
Plastic packaging waste generation by Member State, 2007 (Mt)



Germany is second only to Switzerland when it comes to total recycling and energy recovery rates, and the Netherlands and France also lie in the top 10. Spain, Poland and the UK are all top contributors to waste that sit in the bottom half of the recovery table. The UK in particular is the worst of the major contributors, 22nd out of 29th when it comes to recycling and energy recovery.

Total Recovery Rate by Country 2011

Source: Consultic



## DID YOU KNOW?

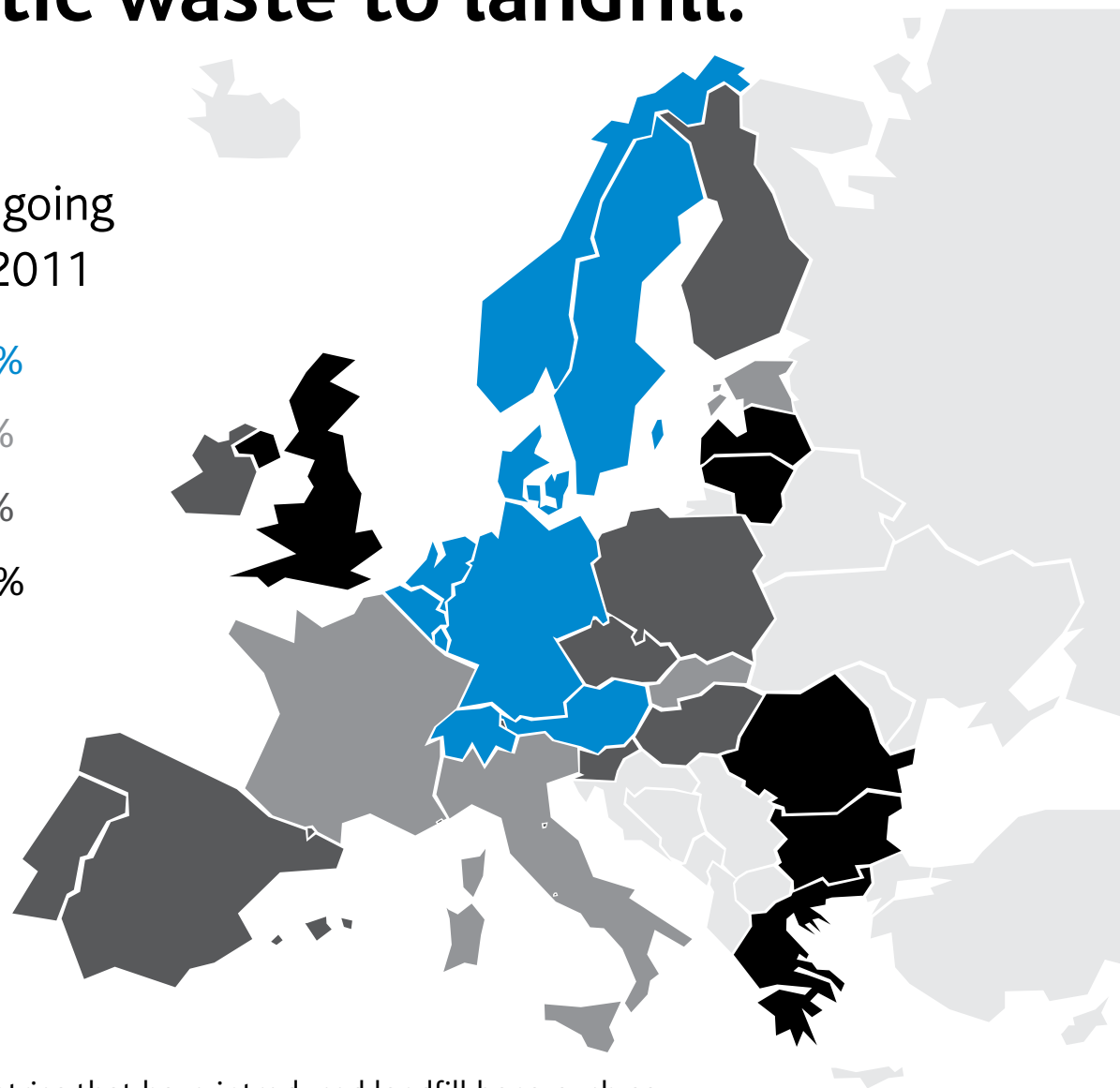
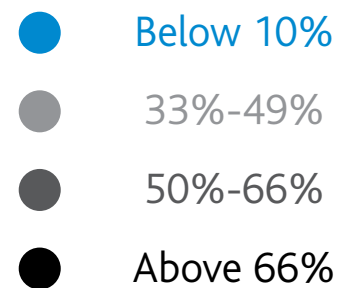
About 420 plants in Europe treat 64 million tonnes of municipal, commercial and industrial waste every year to produce electricity for 7 million households and heat for 13.4 million households.



# IN THE UK

**The UK is one of only 6 countries sending more than two-thirds of its plastic waste to landfill.**

Plastic waste going to landfill in 2011

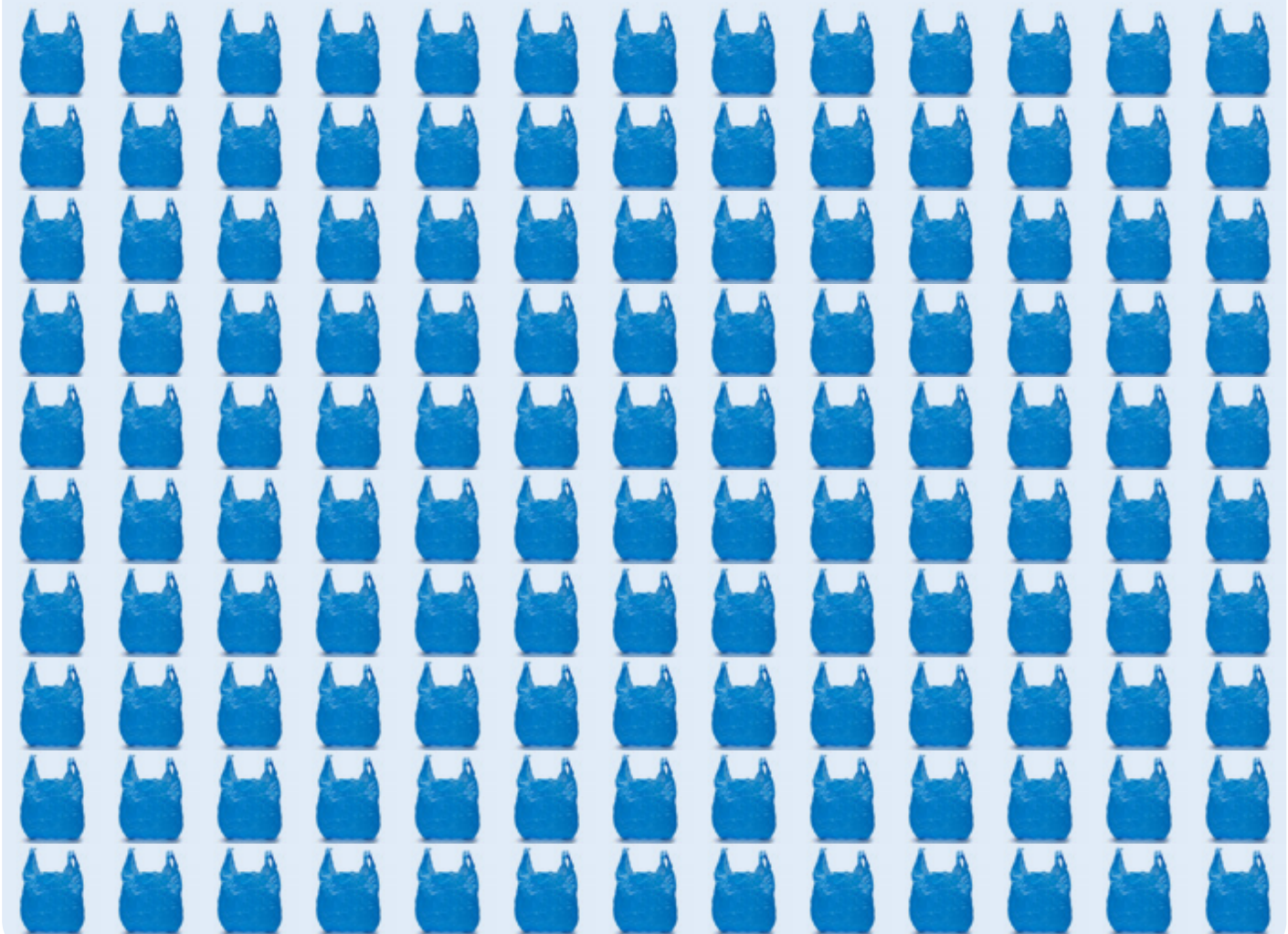


In comparison, countries that have introduced landfill bans, such as Austria, Belgium, Finland, Germany, Norway, the Netherlands and Switzerland, sent less than 10% of plastics waste to landfill.

The UK generates at least 290 million tons of general waste per year, of which 50% goes to landfill every year (that's £3.8 billion of resources). In the case of plastic waste, 69% goes to landfill and just less than 25% is recycled and 8% is energy recovered.

## DID YOU KNOW?

63% of the post-consumer plastic packaging waste is generated from households, the remaining 37% comes from the trade/industry segment. More than eight billion disposable bags are used in England each year, or a staggering 130 per person.







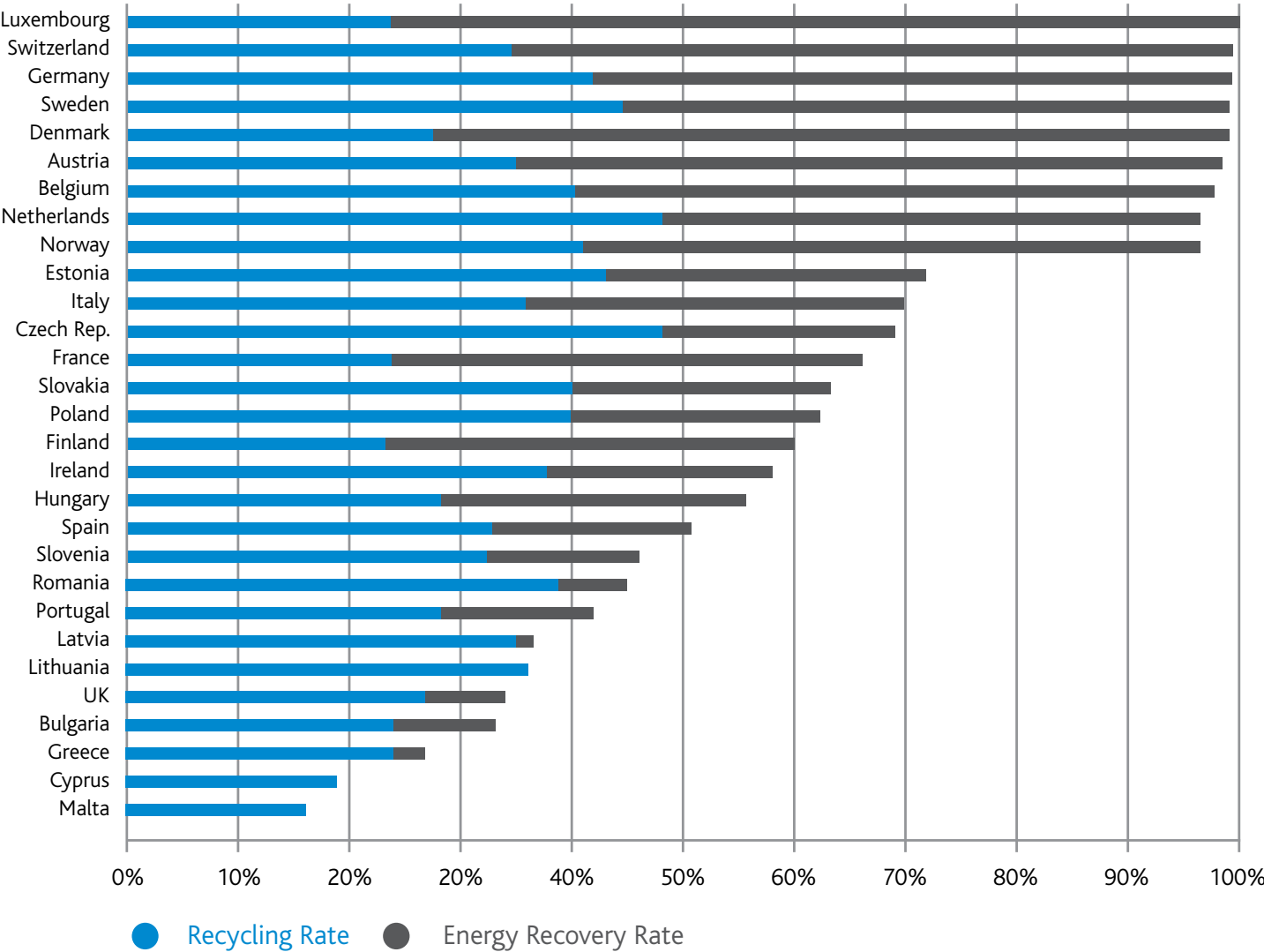
# The European Packaging Directive set a target of recycling 22.5% of all plastic packaging by 2012.

The UK achieved 24.2%; nevertheless the average plastic packaging recycling rate in Europe was 34.7% where 19 out of the 27 EU countries exceeded the 30% mark.

According to [Plastics Europe](#), the overall recovery rate of plastics packaging waste in Europe was 69.2% – an increase of 3.3% from 2011. Unfortunately, the UK was below the average with only 68.1% and a slight increase of 1.49% from 2011.

Total Packaging Recovery Rate by Country 2011

Source: Consultic



By 2017 the plastics packaging waste recycling target for Europe is 42% and for the UK the target is 57%. The UK has some way to go to achieve this.

Mike Wright  
Managing Director



Mike has worked 34 years in the plastics industry. Second generation owner of [Wrights Plastics Ltd](#)

The basic raw materials for plastic are petroleum and/or natural gas and although plastics only consume around 4% of the world's oil, supplies are becoming depleted.

Many plastic products are reaching the end of their lifecycle, forming non-biodegradable mountains of waste plastic. In landfill, both synthetic and naturally occurring polymers don't get the necessary exposure to UV and microbes to degrade. They are also taking up space and none of the energy and effort put into making them is being reclaimed.

Reclaiming the energy stored in the polymers can be done through incineration, but this can cause other environmental damage by the release of toxic gases into the atmosphere.

Recycling is a viable alternative in getting back some of this energy in the case of some polymers and as petroleum prices increase it is becoming more financially viable to recycle polymers rather than produce them from raw materials.

Recycling needs a number of factors to make it an effective process; there needs to be collection and sorting systems in place and there needs to be a market for the materials that are recycled and made available for reuse. There also needs to be a will to create the policies and make the investments required to achieve these conditions and this appears to be lacking in many areas of the UK policy structure at the moment.

*Doing nothing cannot be considered as an option and to ensure that UK companies remain competitive they must both push for changes in policy and infrastructure but must also push themselves within their own organisations and supply chains to make the improvements that will make the difference.*

In all of the processes used to convert plastic raw materials into end products there is an inevitable arising of some scrap material. This results from the start-up and shutdown periods of the processing machinery, from out of specification products and from quality control samples. Although waste may be inevitable, the way we minimise it and then deal with what is left is the most important issue.

# WRIGHTS PLASTICS ENVIRONMENTAL JOURNEY

In 2011 Wrights Plastics attended an environmental conference at Marks & Spencer and started on the journey to reduce the environmental impact of the products they produce by changing the materials and the processes used to create their products.

Significant steps have been taken to reduce the environmental impact of the business including:

- Improved segregation and recycling of waste within the business;  
*30 tonnes of waste has been diverted from landfill*
- Recycled foam is now used in a number of products and is specified wherever possible.
- 100% recycled material is now used for products supplied to Land Rover.
- Accreditation to the Forest Stewardship Council Standards which promotes responsible management of the world's forests in 2012.
- Installation of new energy efficient production equipment and lighting reduced CO2 emissions by *17 tonnes per annum*.
- 40 tonnes of our scrap material has been sent for recycling in the past year. Mostly Acrylic but also includes HDPE / ABS / PETG / Styrene / Nylon



So far Wrights Plastics have used:

- Over 16 tonnes of re-grind ABS for the JLR job in the past year
- More than 7 1/2 tonnes of recon foam PVC for Marks & Spencer light boxes.
- Along with a combined 2 1/2 tonnes of recon / re-grind material for other smaller jobs

## A NEVER ENDING JOURNEY

Improving the awareness of environmental issues and taking positive actions makes good business sense. Customers want to know that the products they are buying are made as responsibly as possible and will buy from suppliers on this basis. Our future aims are:

Thin recycled foam PVC to replace MDF – reducing weight, eliminating 1780 vehicle movements & 180kg miles and cutting 46 tonnes of carbon per annum

A fully recycled acrylic material "GreenCast" to replace virgin materials. 75% carbon footprint, 400t CO2 per annum

Introduction of a ISO 14001- certified environmental management system to continually improve the company's performance

If every company within the industry was willing to take a similar approach then the UK would not be so low in the international tables and significant reductions in landfill could be achieved.



# LIMITED LIGHT BOX

## Ticking all the (light) boxes for Marks and Spencer

MARKS &  
SPENCER

The challenge – We were tasked by Marks & Spencer to provide a cost effective and environmentally acceptable solution for a catwalk style light box. The solution – The previous design had an MDF base with an acrylic top. We immediately identified the MDF element as too heavy, too costly one that could be improved from an environmental stand point. We replaced the base with a recycled grade of foam pvc. This was a successful solution for a number of reasons:

- It met the criteria of Marks and Spencer's Plan A sustainability strategy
- Reduced the weight of the product
- It was delivered on budget.

### PRODUCTION

The item was rolled out as the Limited Light Box into the M&S re-fit programme and has been included in their standard format.

### THE OUTCOME

We continue to support Marks and Spencer with engineering input to provide value, functionality and socially responsible project solutions.

