

**Chemical industries** are increasingly looking to make use of **recycled** materials.

**Why do you think this is so?**

Use the **clues below** about **waste disposal** to fill in the names of the countries.

**Greece** landfills almost 90%.

**The Netherlands** and **Austria** recycle around 60%.

**Germany** and **Portugal** incinerate about 23%.

**Belgium** and **Germany** recycle about half.

**Denmark** and **the Netherlands** make almost no use of landfill.

**Sweden** recycles more than **Luxembourg**.

**Belgium, Sweden, Germany** and **Luxembourg** landfill less than a quarter.

**Portugal** makes the least use of recycling.

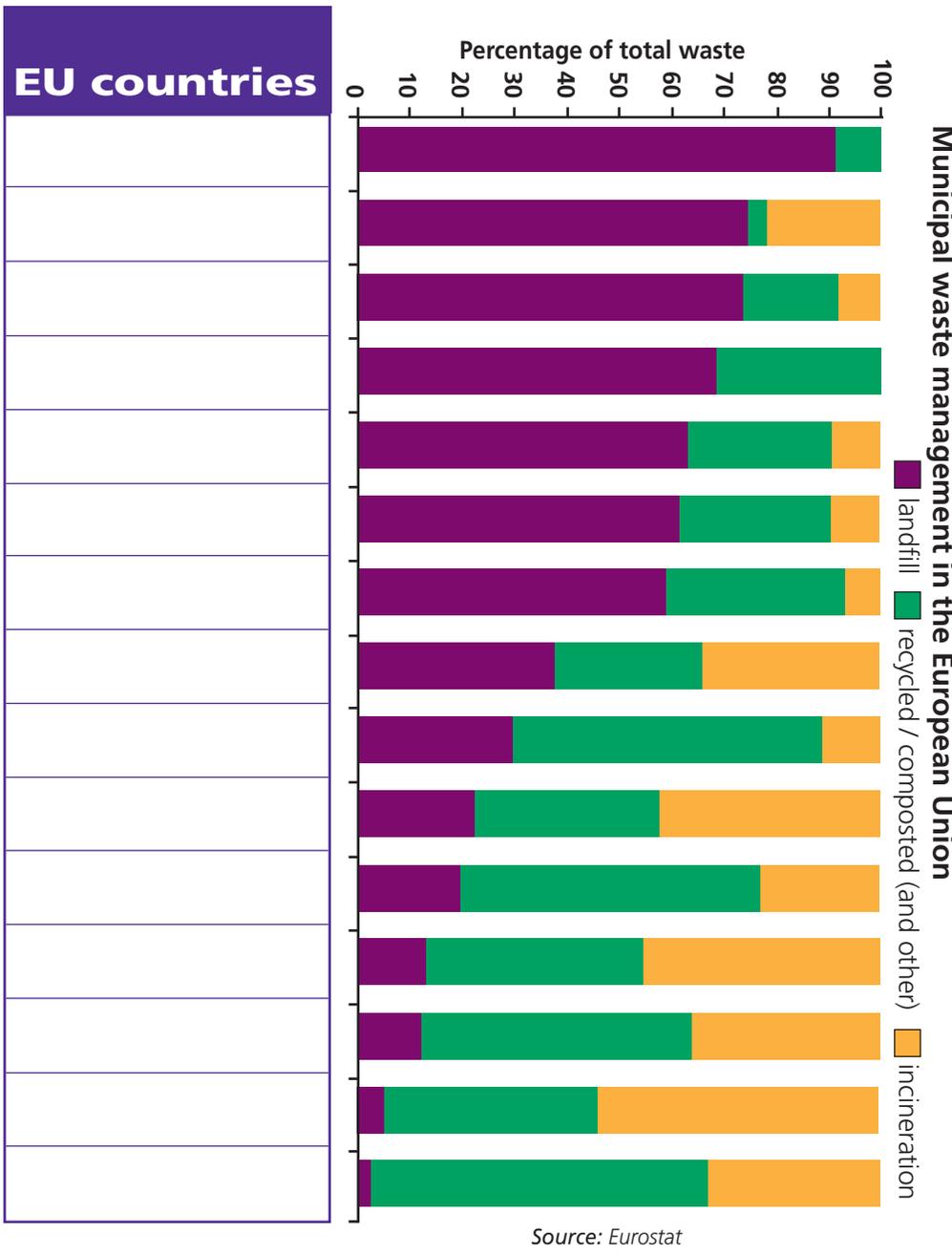
**The UK** landfills nearly three quarters.

**Sweden** incinerates about 50%.

**Ireland** doesn't incinerate.

**Finland** and **Italy** are very similar but **Finland** uses a little more landfill.

**Spain** landfills 60%.

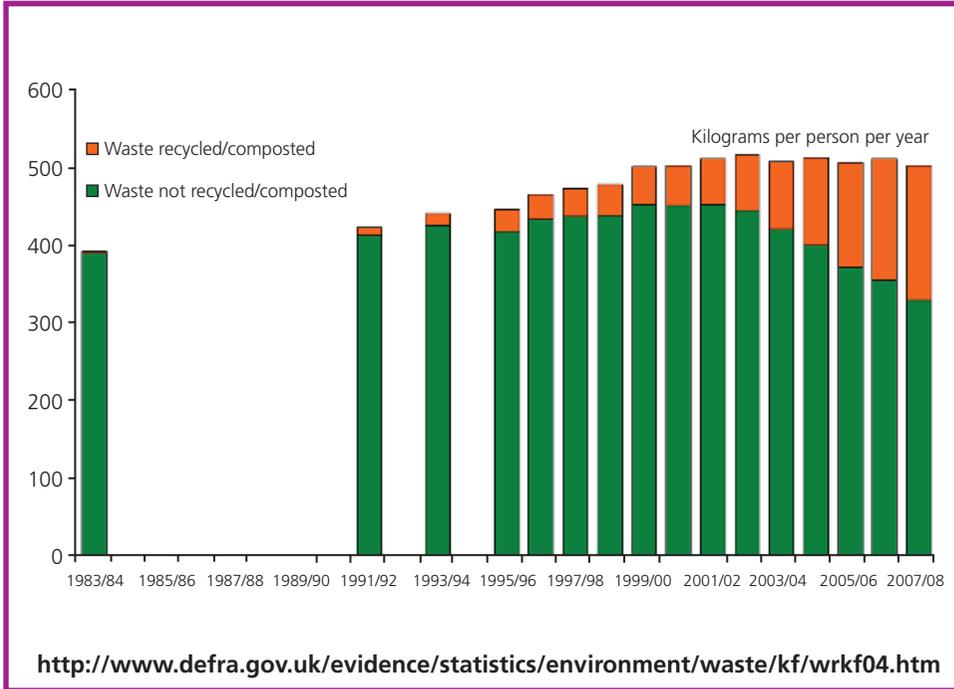


Municipal waste management in the European Union

working with chemicals

Which country do you think has the best practice?

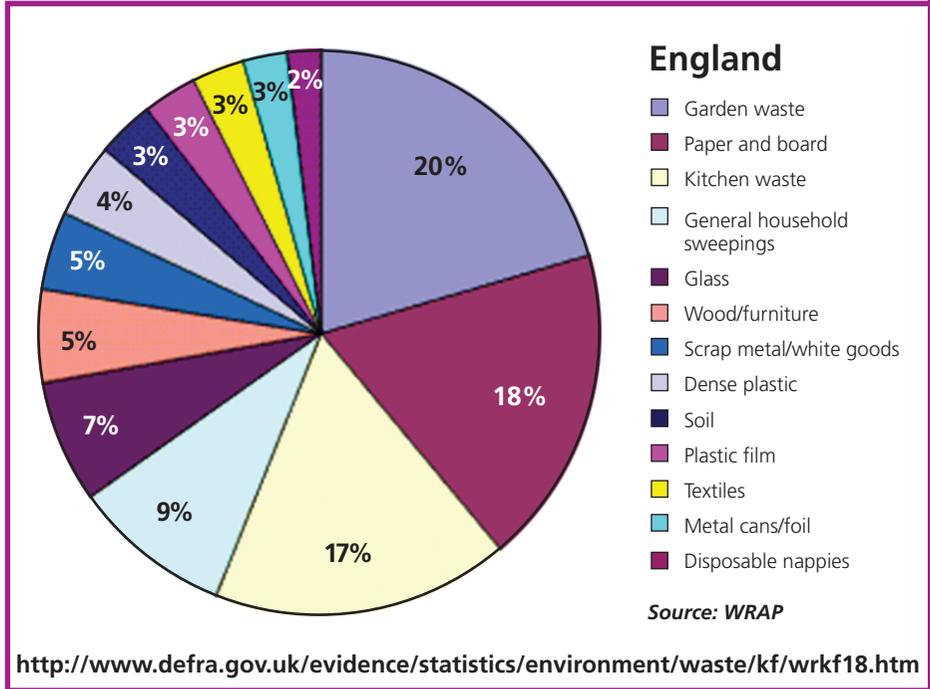
# Household waste and recycling 1983/4 – 2007/8 UK



The graph shows two positive trends in waste management. **What are they?**  
 What **percentage** of **household waste** was recycled in 2007/8?



# Composition of household waste



Find out what sorts of **household waste** are **easy to recycle**?  
 What percentage is this of the total?



Use the information from the graphs to produce a poster *encouraging recycling.*

working with chemicals

## Working with chemicals : Waste management

### Description

This topic works with government statistics to raise issues about waste recycling. It would work well as a cross curricular topic working with science colleagues to understand both the chemical and the energy issues involved in waste disposal.

### Activity 1: Getting rid of waste

### Activity 2: Changing UK habits

The worksheet **Getting rid of waste** presents data from 15 EU countries. The task is to use the clues to identify which country is which. Some clues lead to immediate identification whereas others need to be used in conjunction with information contained in different clues. Pupils will notice that different countries have very different patterns of waste disposal, some much greener than others.

This sets the frame for **Changing UK habits**. Here information related to the UK and England is presented and pupils are asked to produce a poster, based on the graphical information available, which encourages recycling. Pupils will need to know about the hazards associated with landfill, the energy loss associated with incineration and the benefits associated with recycling, re-using and composting. Recycling saves more energy than incineration yields and there are problems of toxicity and of methane production associated with biodegradable waste in landfill. Composting keeps biodegradable waste relatively benign.

Further information about waste and its disposal is readily available on the Internet.



### The Mathematics

In this topic pupils read and interpret statistical data portrayed graphically through the use of bar charts and pie charts.