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Waste - the growing challenge

Dr Richard Cresswell,

Regional Director, Environment Agency (SW)

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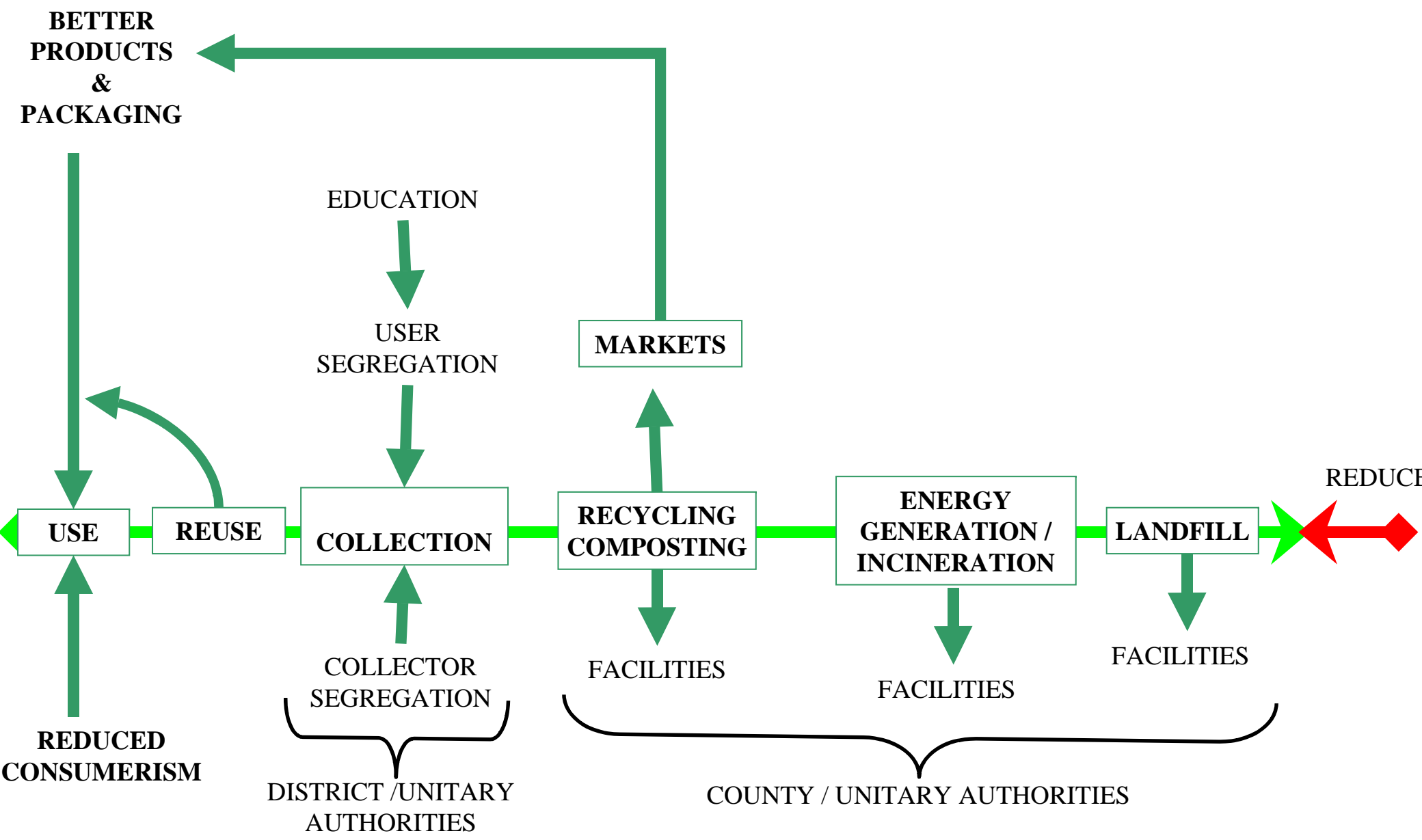


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Overview

- The waste problem
- Who is responsible
- Municipal, Commercial and Industrial waste
- Improving sustainability of waste management

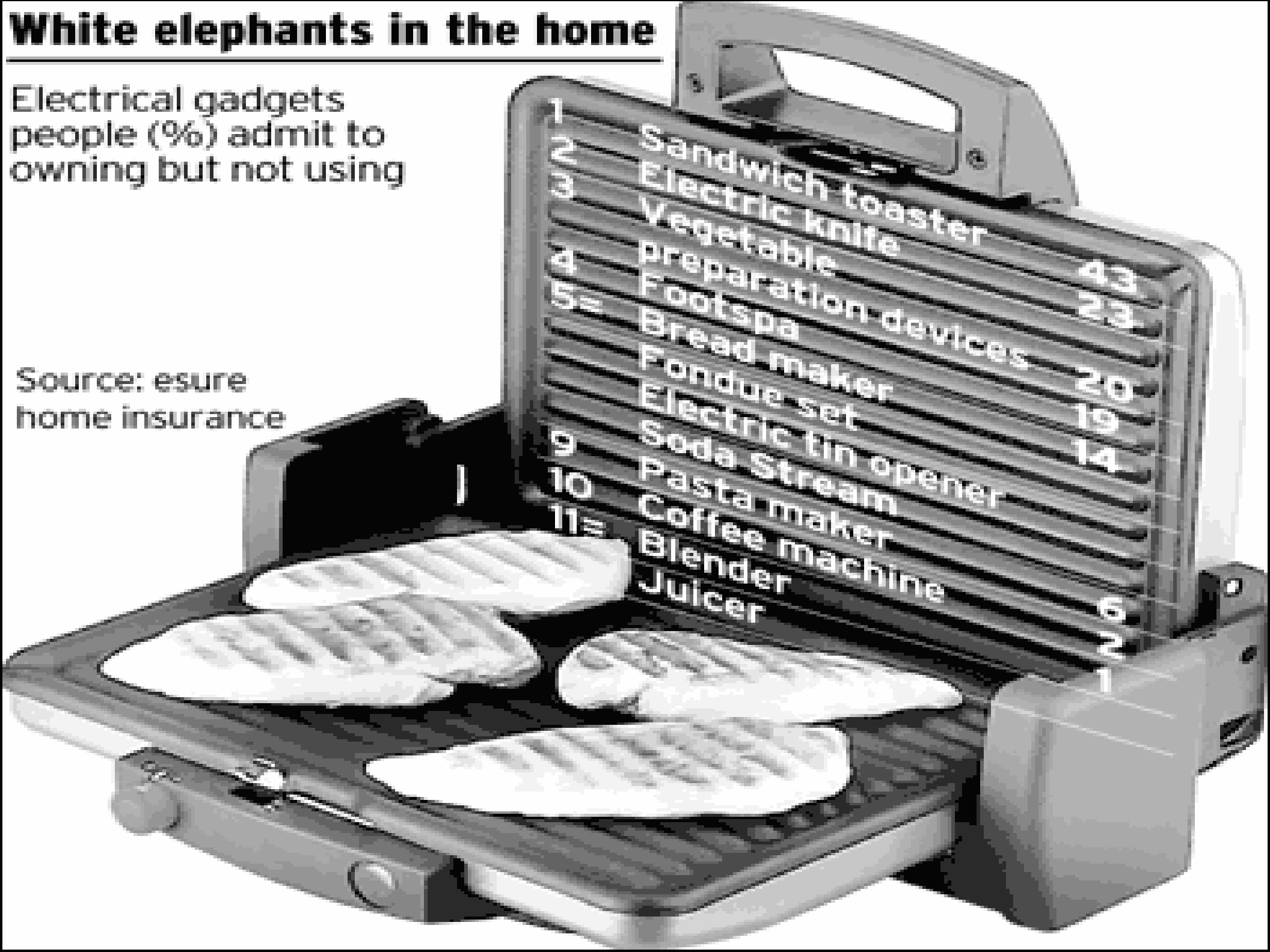




White elephants in the home

Electrical gadgets people (%) admit to owning but not using

Source: esure home insurance







Up to 80% of a product's environmental impact is set at the design phase....



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Product facts

- 93% of production materials are never used in the final product
- 80% of products are discarded after a single use
- 99% of materials used are discarded in the first six weeks

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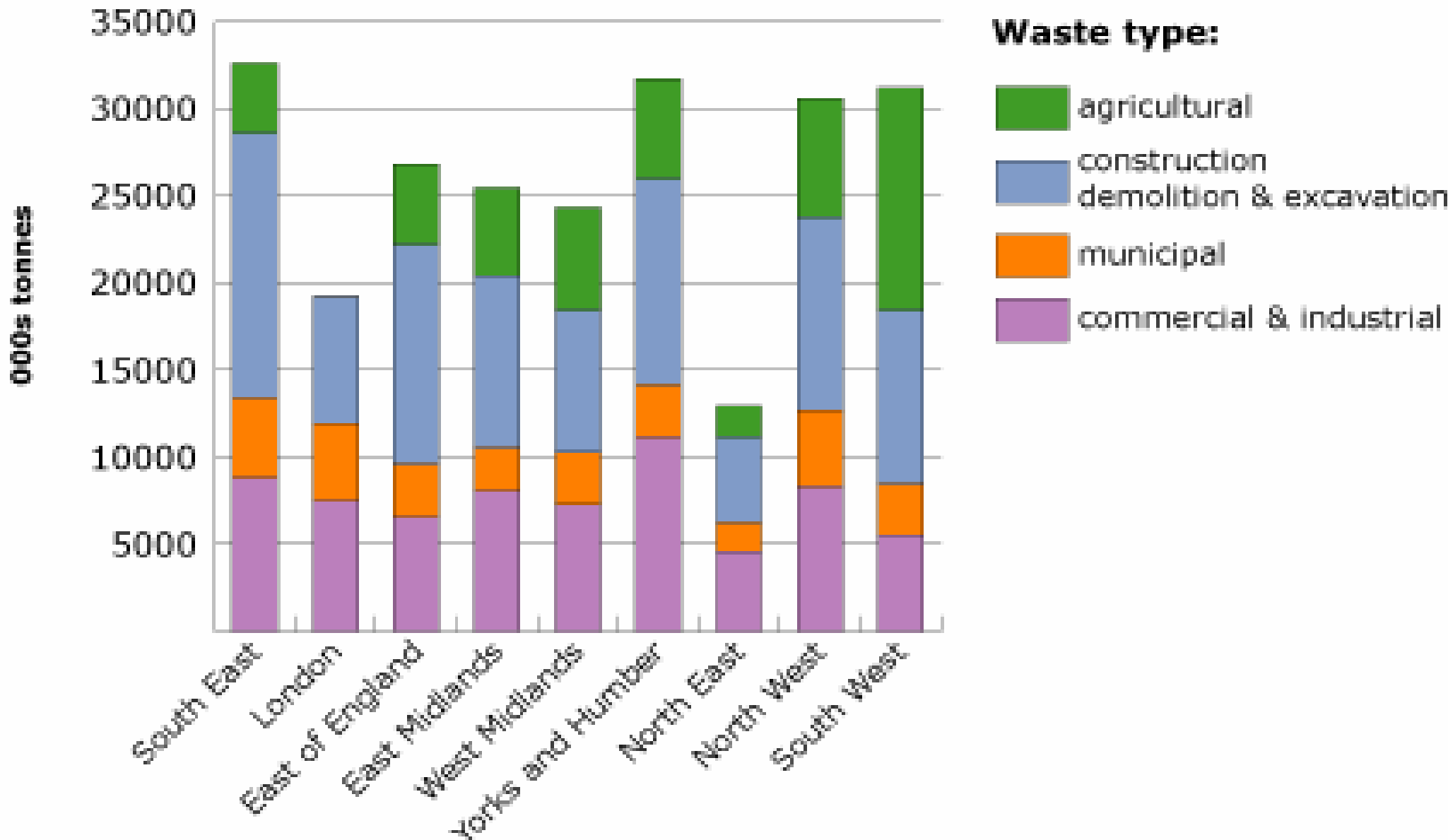
Making waste easier to manage

- Can the materials used be easily separated?
- What fixings are used?
- Is there an unnecessary mix of materials?
- Are there hazardous materials requiring special disposal?
- Is recycling an option

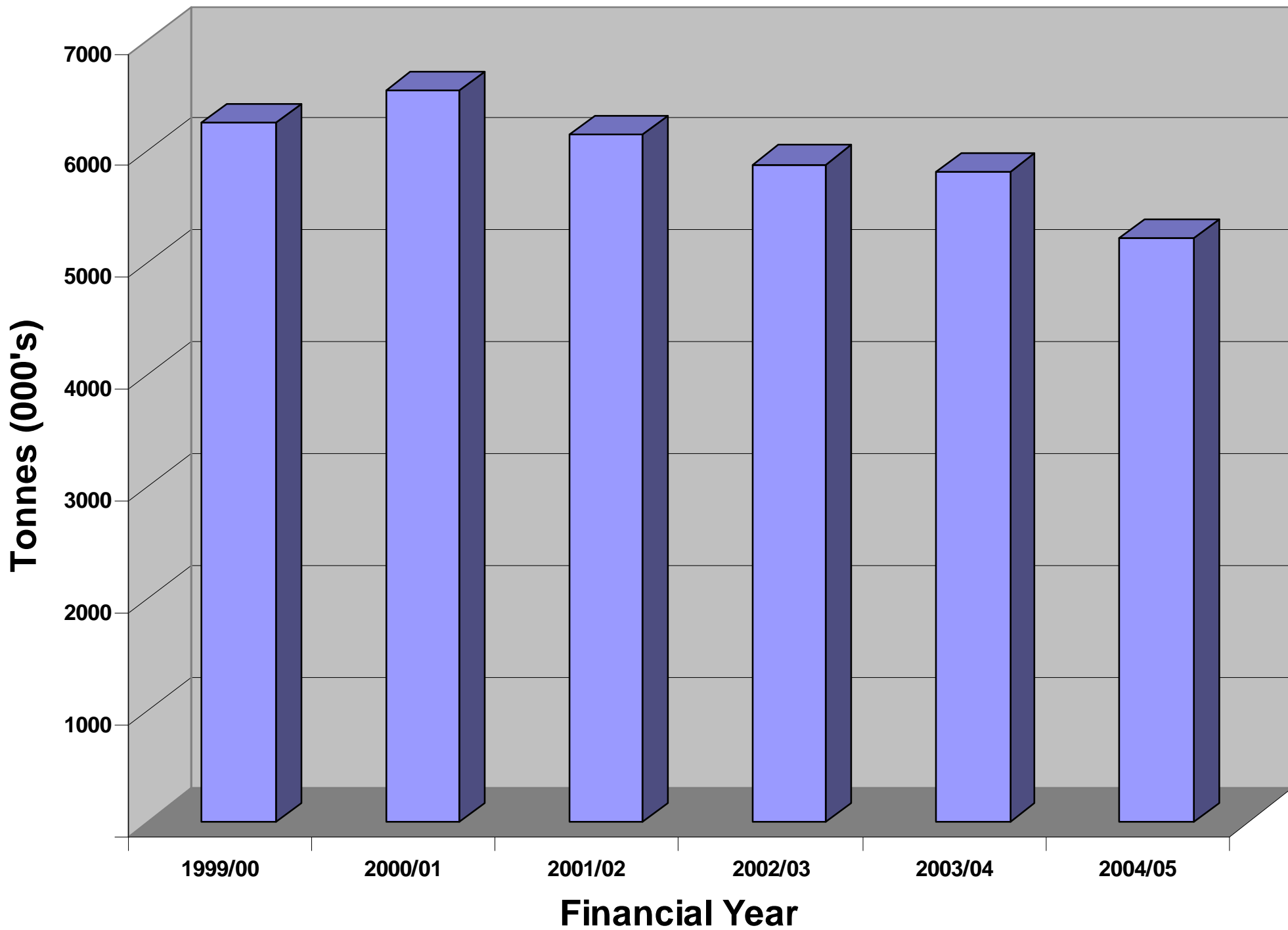


England: waste types produced by region in 2002-3

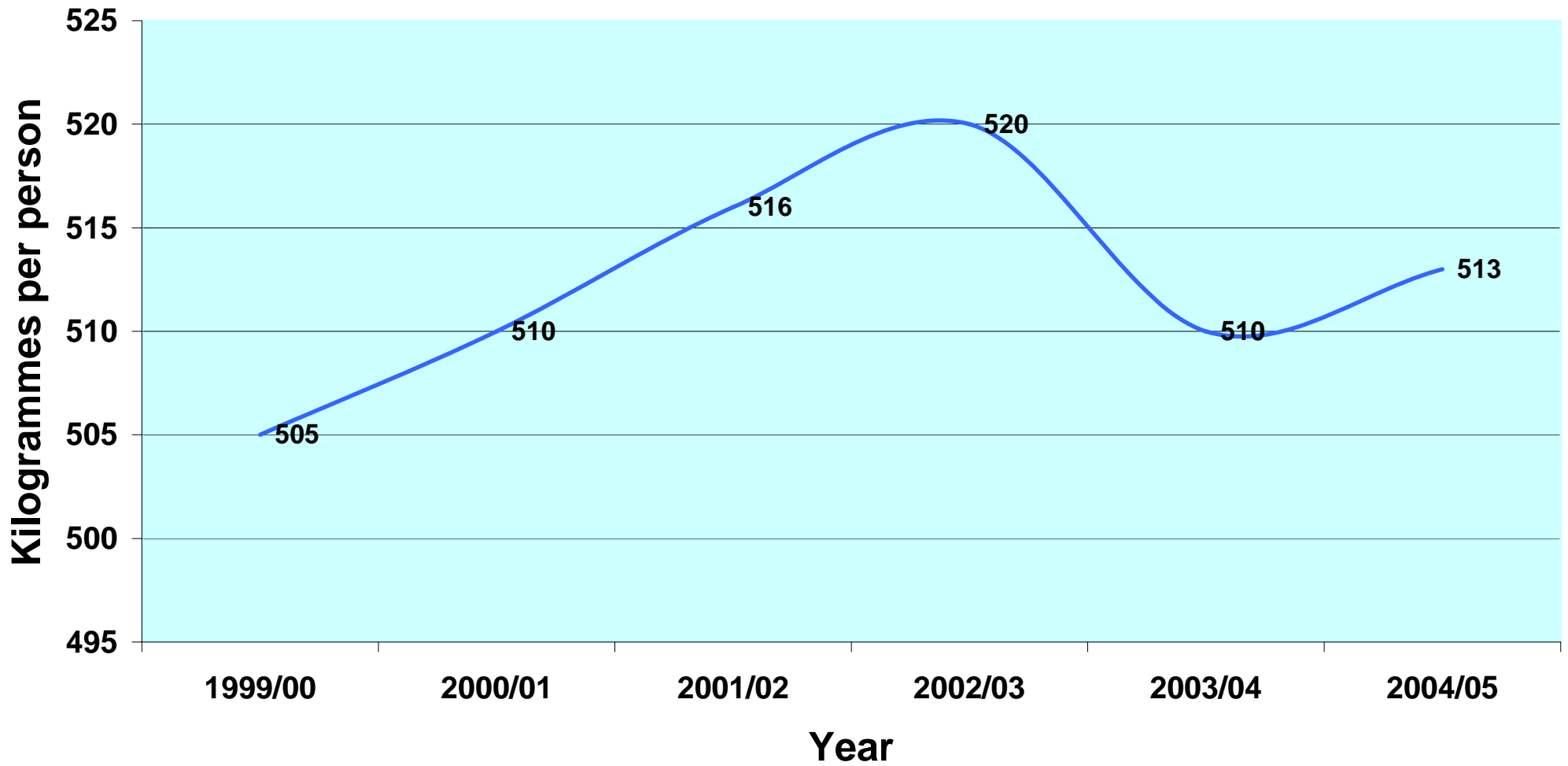
Total waste reported 235 million tonnes



Total Waste sent to Landfill in the South West 1999/00 to 2004/05



Household waste production per capita in England 1999/00 to 2004/05.



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Municipal Waste

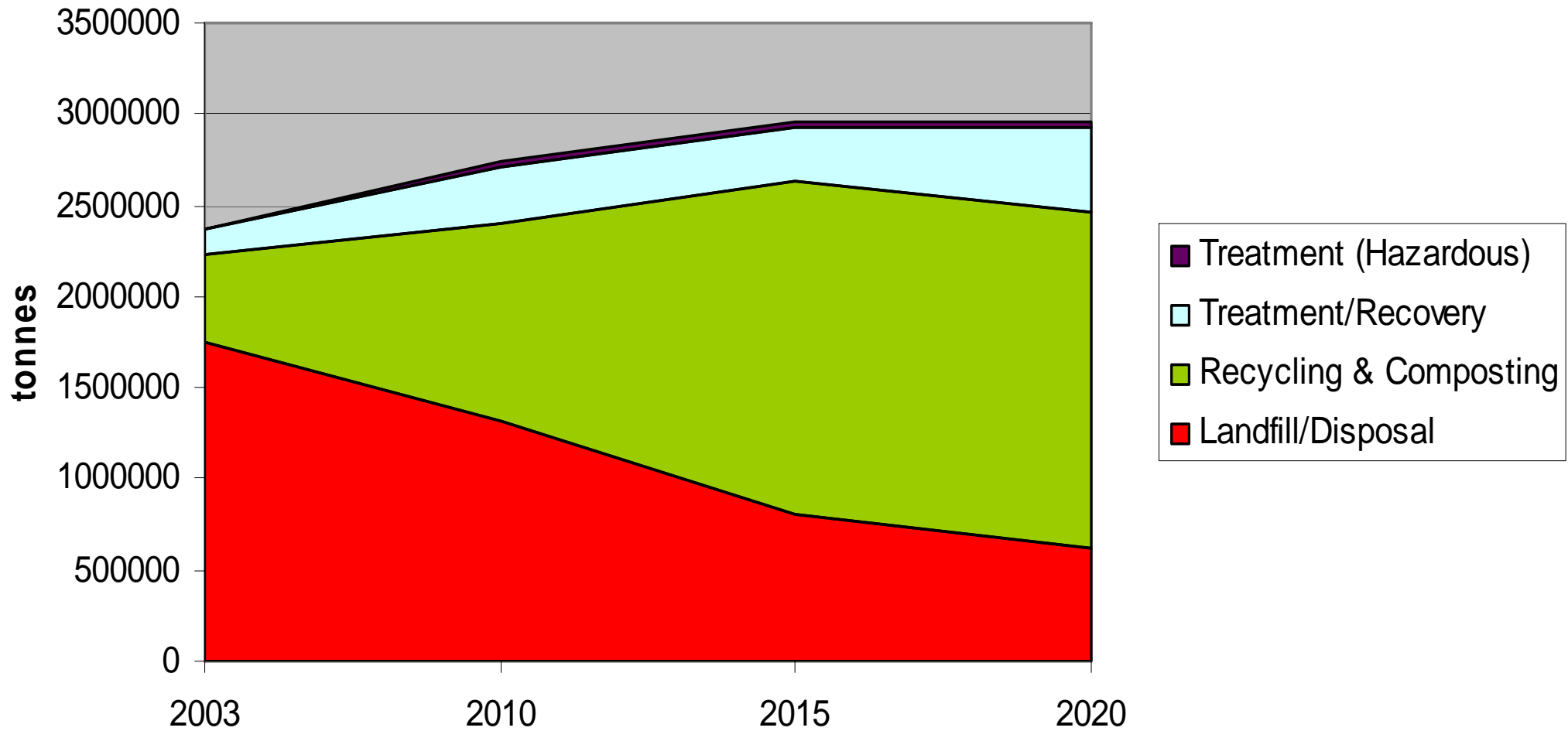
Landfill Directive

...cut biodegradable municipal waste sent to landfill:

- by 2010 to 75% of that produced in 1995
- by 2013 to 50% of that produced in 1995
- by 2020 to 35% of that produced in 1995

- **Policy objective - to achieve a reduction in greenhouse gas emissions.**

MSW arisings and Management Requirements 2003 to 2020





Developing Markets for recycled materials







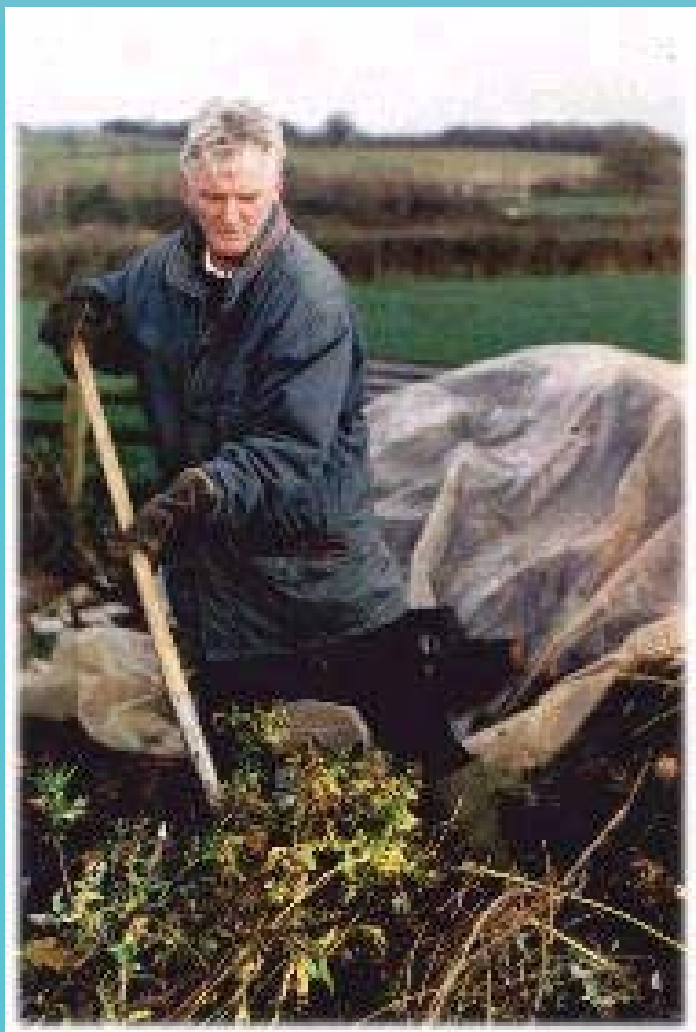


Removing regulatory barriers

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Where
appropriate

Holsworthy Biogas Plant



- 150,000t per year 80% animal slurry, 20% food processing waste
- Renewable Energy source
- Biodegradable waste diverted from landfill



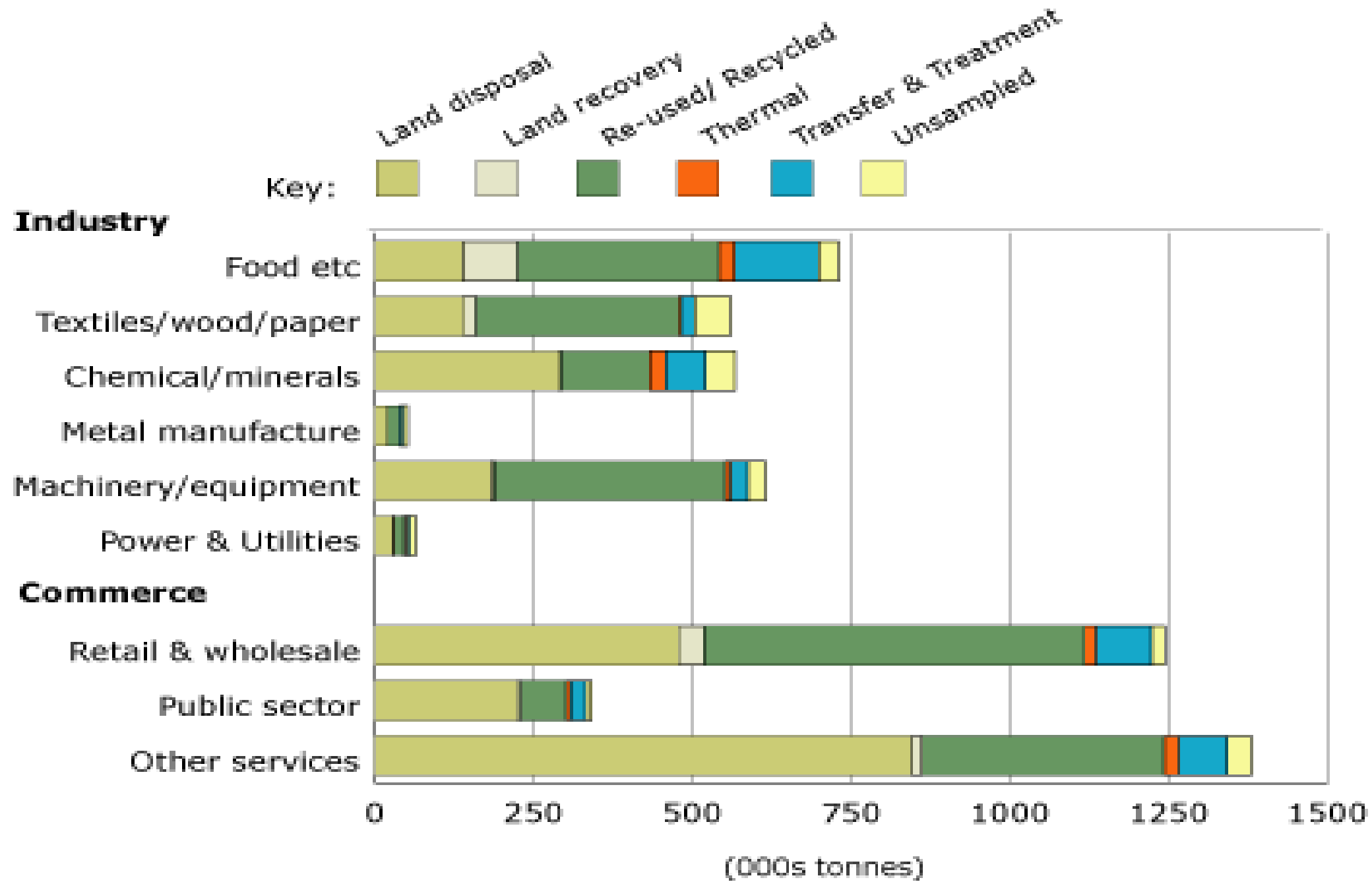
HISTORICAL
MONUMENT
**Mount
Landfill**

OOOOOH!

ONCE UPON A
TIME PEOPLE
USED TO DUMP HERE
ALL THEIR WASTE!

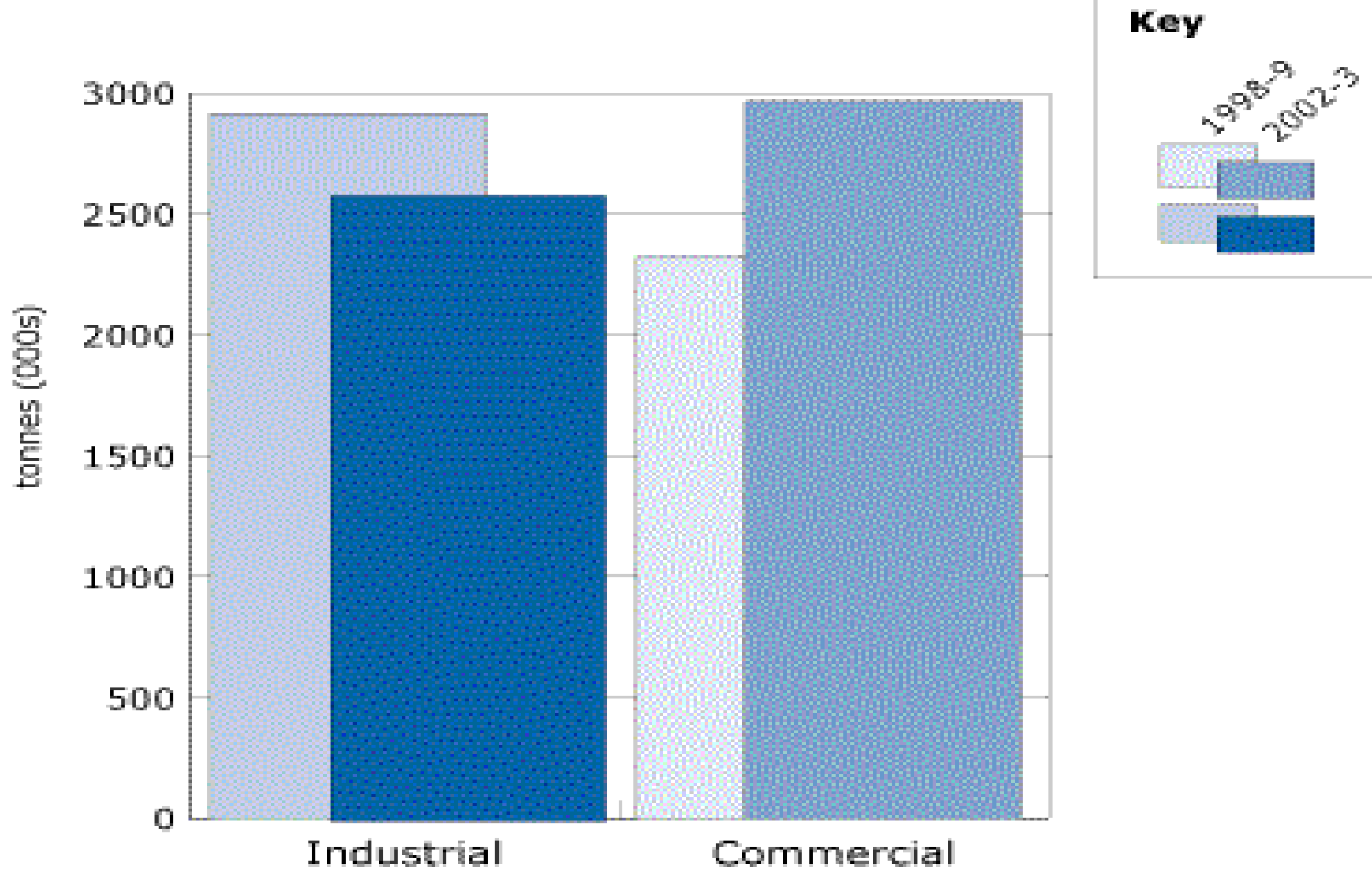
© 1997
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Methods of disposal or recovery used by different business sectors in South West 2002-3



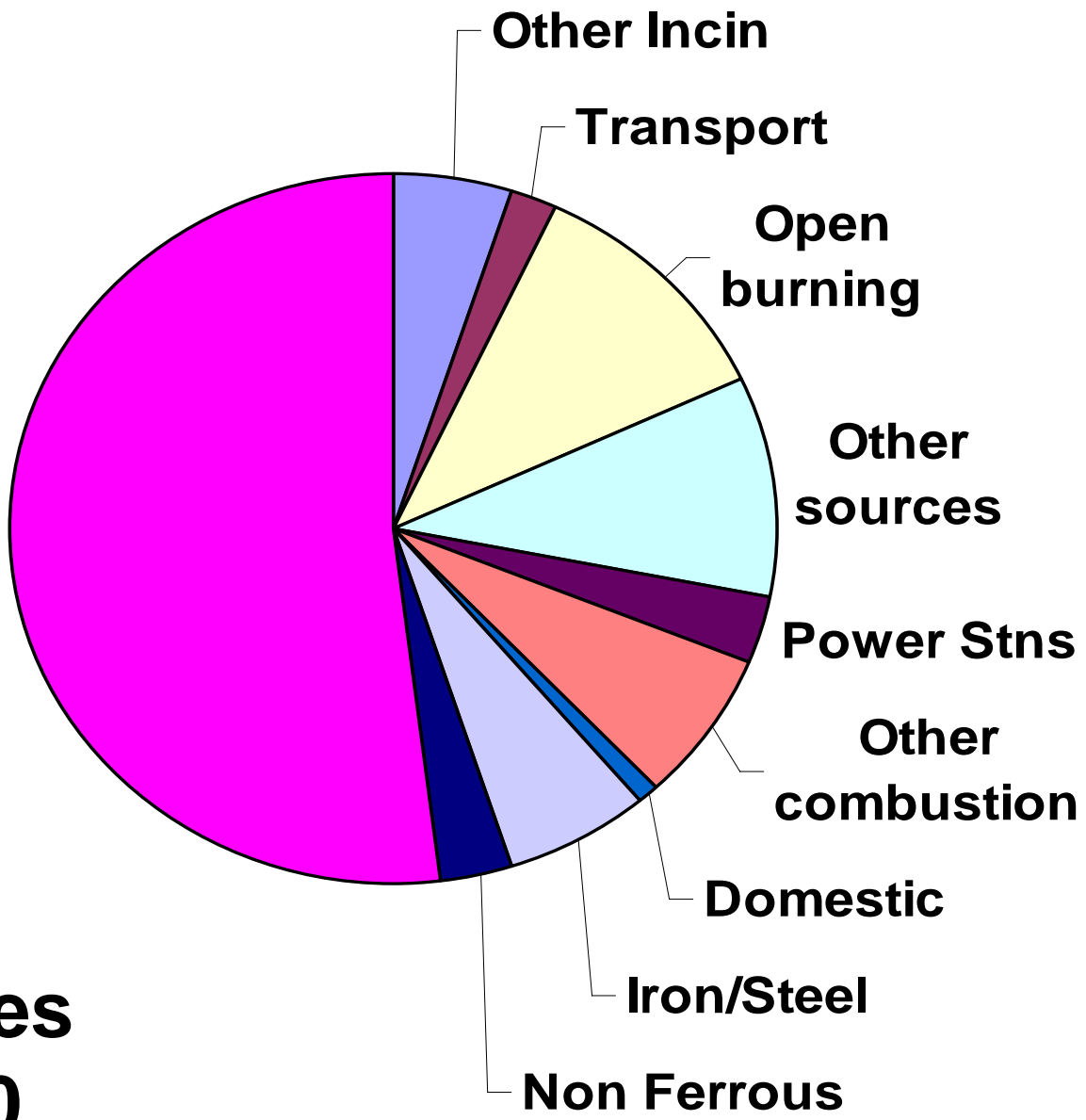
Source: England: Commercial & Industrial Waste Survey 2002-3

Industrial and commercial waste in 1998-9 and 2002-3 in the South West



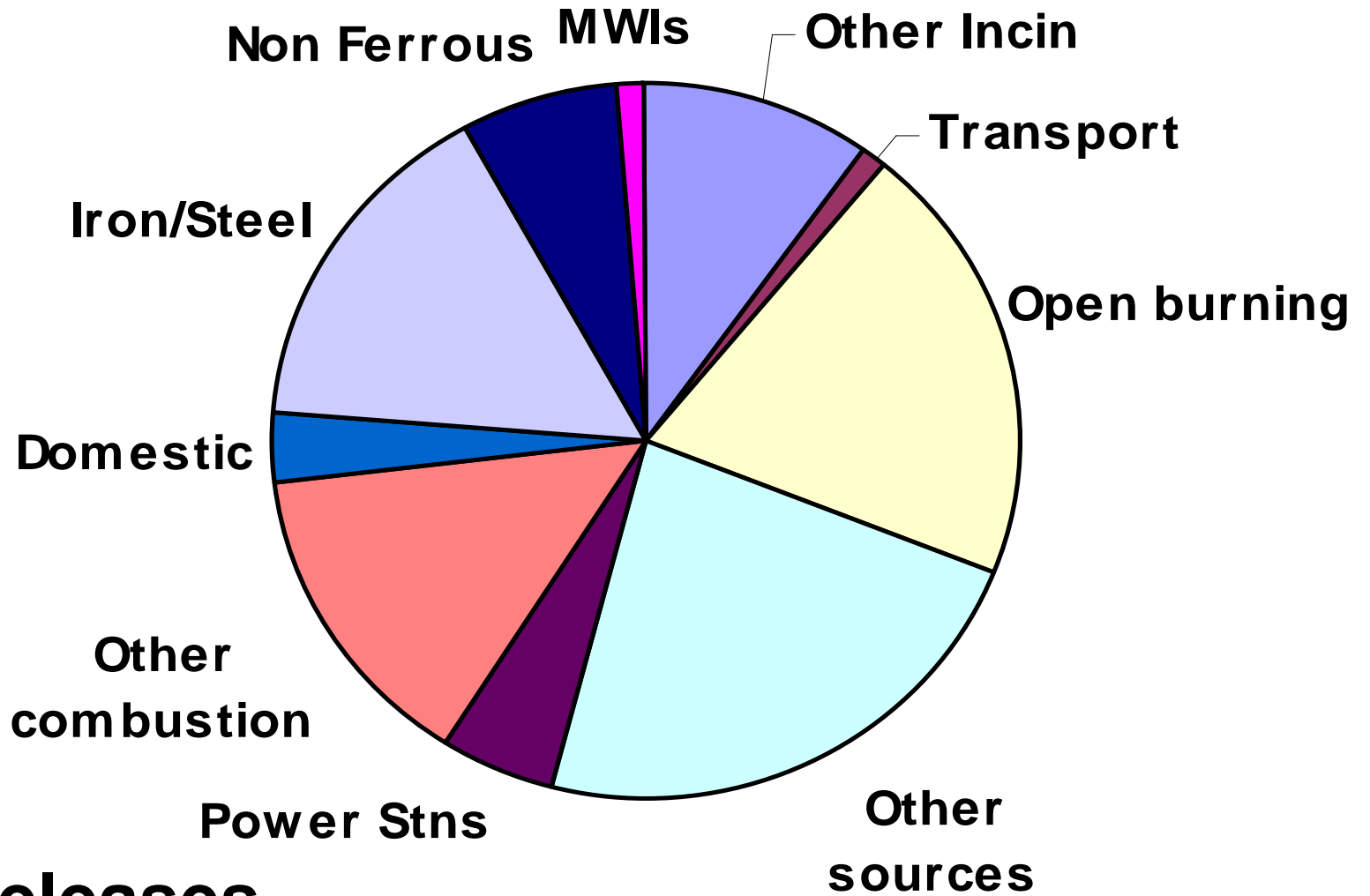
Source: England: Commercial & Industrial Waste Survey 2002-3





Dioxin Releases in the UK 1990

total 1078g I-TEQ



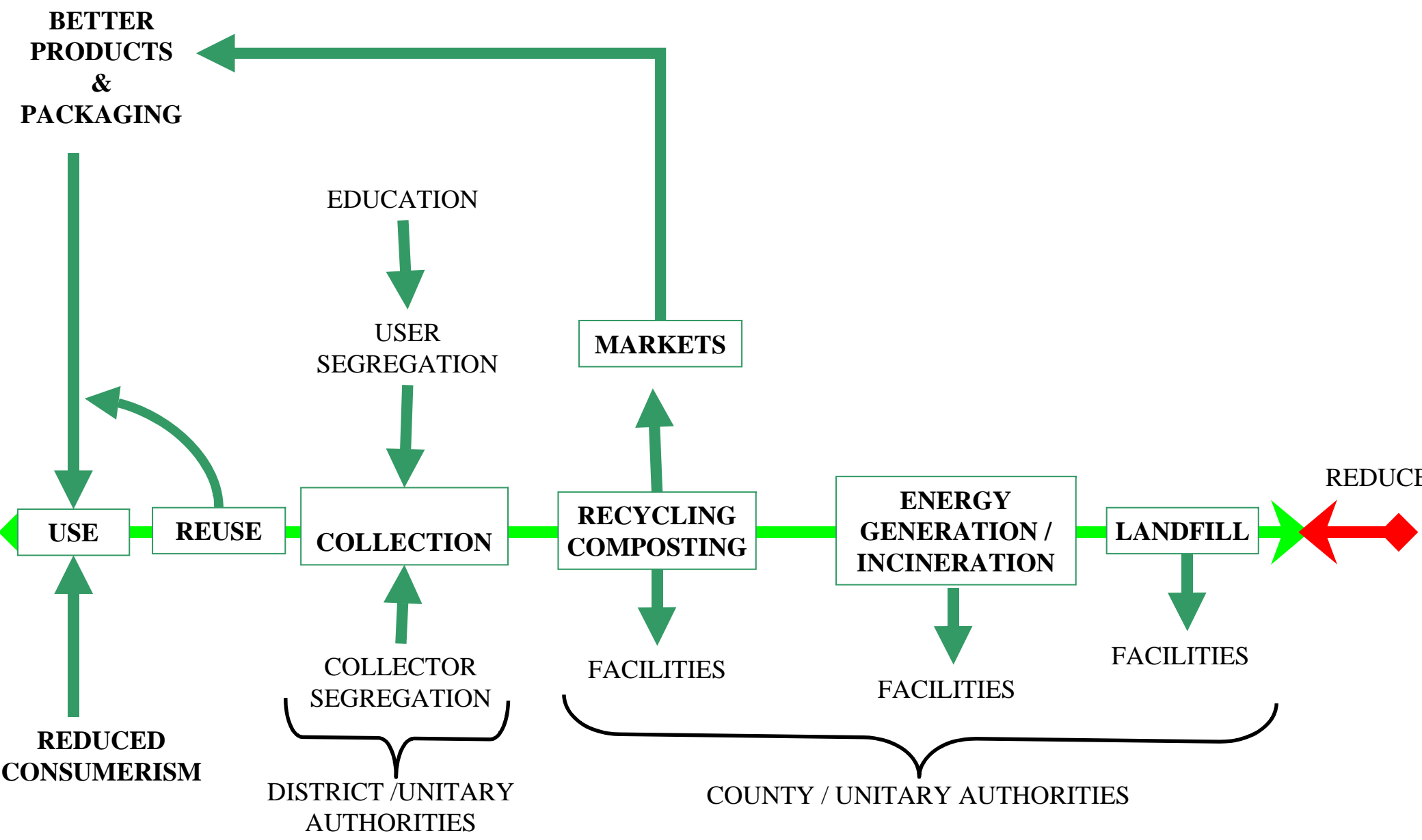
Dioxin Releases in the UK 1999

total 325g I-TEQ











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Waste & Resource Assessment Tool for the environment

- *Life Cycle Assessment (LCA)* software tool for comparing different management systems of Municipal Solid Waste.
- Produces results for decision-makers & stakeholders.
- Considers potential impacts from all stages in the management and processing of waste.
- Takes account of the infrastructure, and the avoided impacts associated with materials and energy use.

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Life cycle assessment - CO₂ savings for glass recycling

		CO ₂ savings kg/t glass
Recycle closed loop	UK	314
	Export	290
Recycle open loop	Glass fibre	275
	Bricks	66
	Shot blast	19
	Aggregates	-2
Landfill disposal		0

Source: "Glass Recycling – Life Cycle Carbon Dioxide Emission"
– Envirosc Consulting Ltd, 2003 for British Glass.

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Case Study - Calvert Trust, Exmoor



envision
where **environment** means business

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Case Study - Colour Works Ltd



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Case Study - Princesshay, Exeter



Case Study - Simons construction Ltd

■ Timber		24%
■ Plastics	Active 52%	15%
■ Gypsum		6%
■ Paper / card		4%
■ Bio-organic		3%
■ Hard material		Inert 42%
■ Cast formless	9%	
■ Soil	1%	
■ Metals		6%
■ Chemicals / paint		0.3%



SIMONS

SITE wise II



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Case Study - Simons construction Ltd

Cutting costs through waste segregation

Un-segregated/General waste: £75 / tonne

Inert waste: £15 / tonne

(8 yard skip holds about

7-8 tonnes costing about £100-£120)

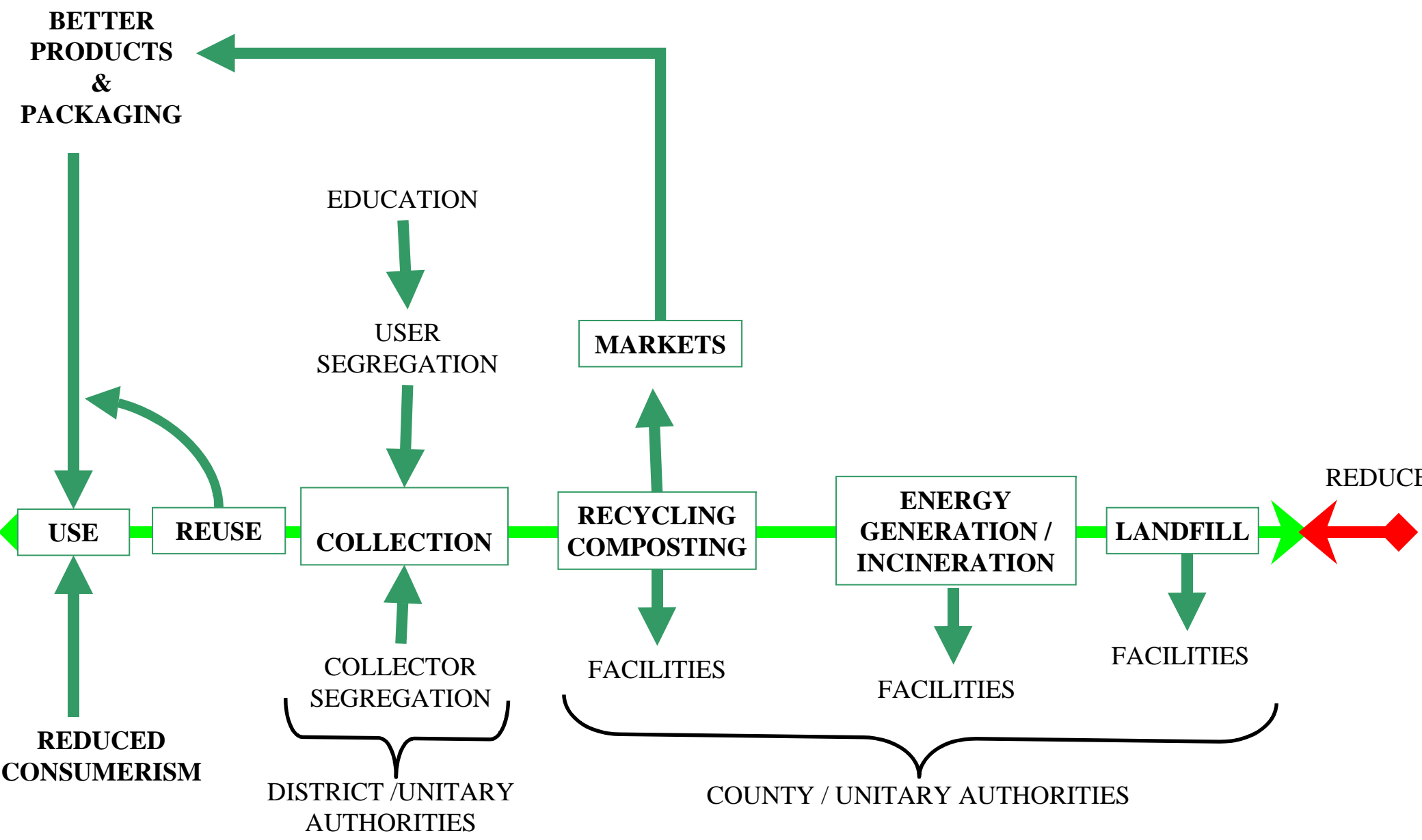
Metals: at least free collection

(You may get some money back!)

Hazardous waste : £600 / tonne



SIMONS



**YOU CONTROL
CLIMATE CHANGE.**



TURN DOWN. SWITCH OFF. RECYCLE. WALK. CHANGE



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Challenge yourself! Challenge others!

- Do I really need it?
- Do I need a new one?
- Is it made sustainably?
- Can someone else use it?
- Can it be recycled?

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Challenge yourself! Challenge others!

- Could I do more?
- What's stopping me?
- Could I do more?

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