

The case for waste reduction

Sue Hornby (Scott Wilson)



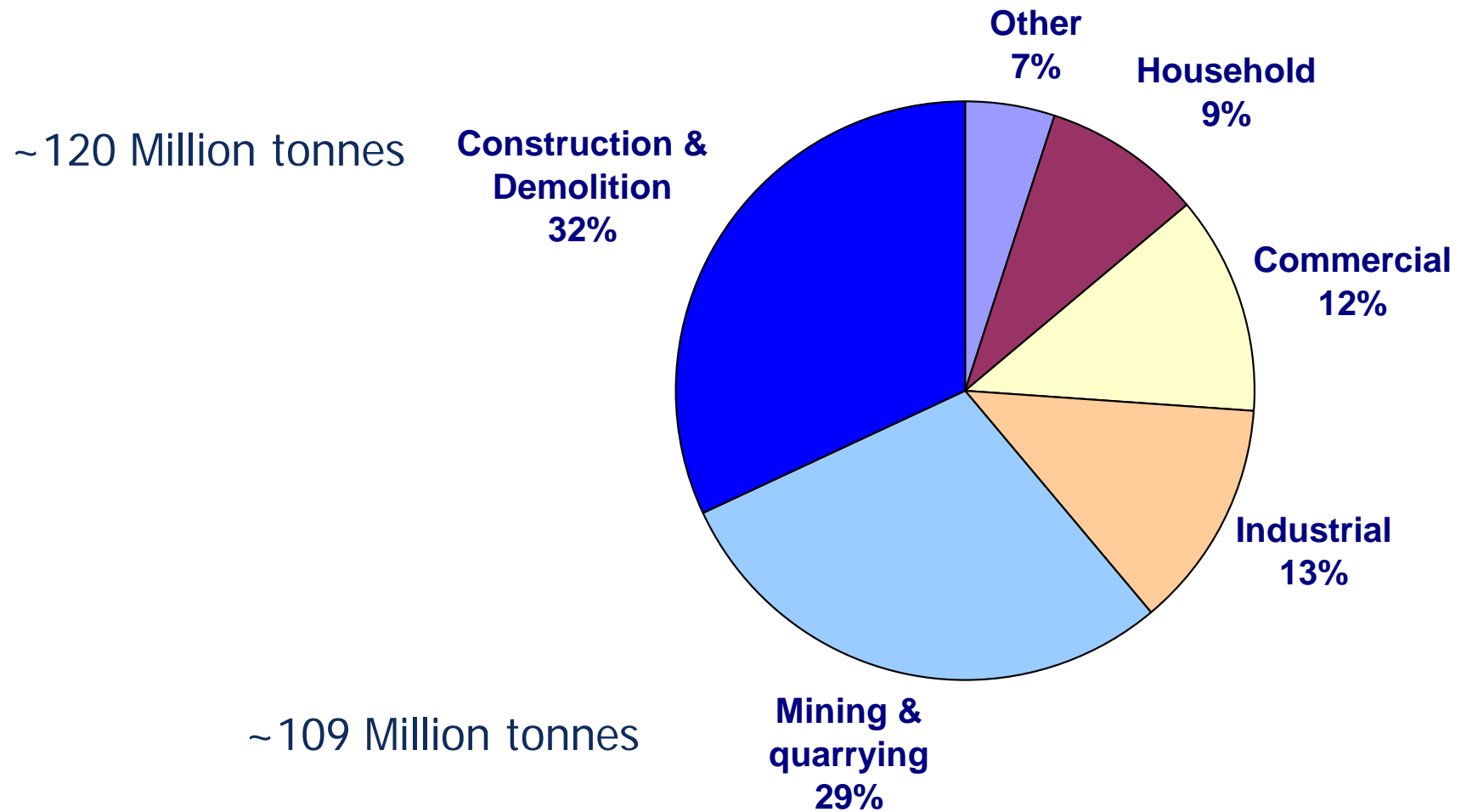


Introduction

- The need to reduce construction waste
- Drivers
- Benefits
- Case studies



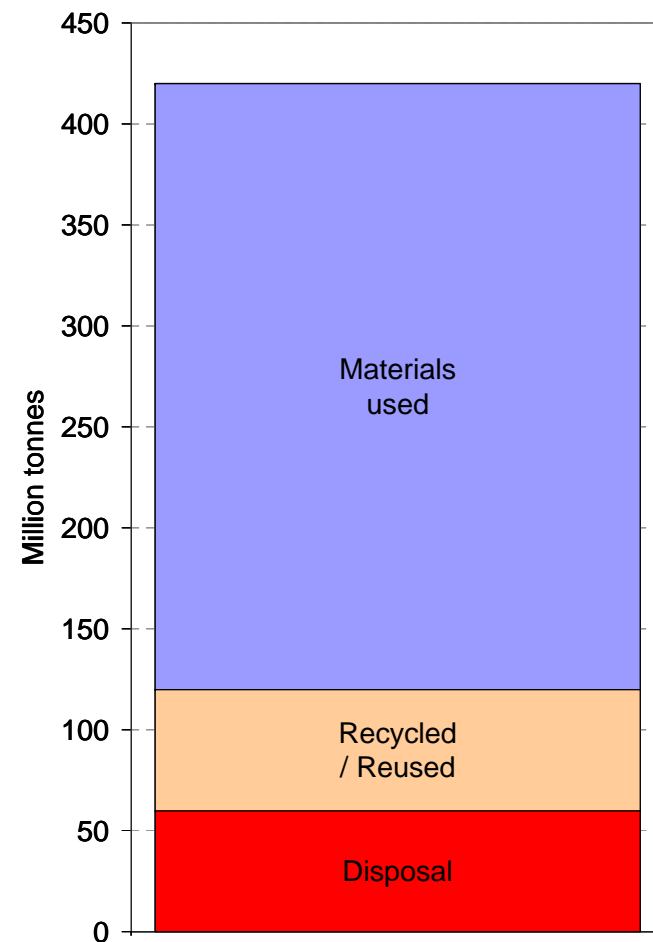
Estimated UK annual waste arisings by sector





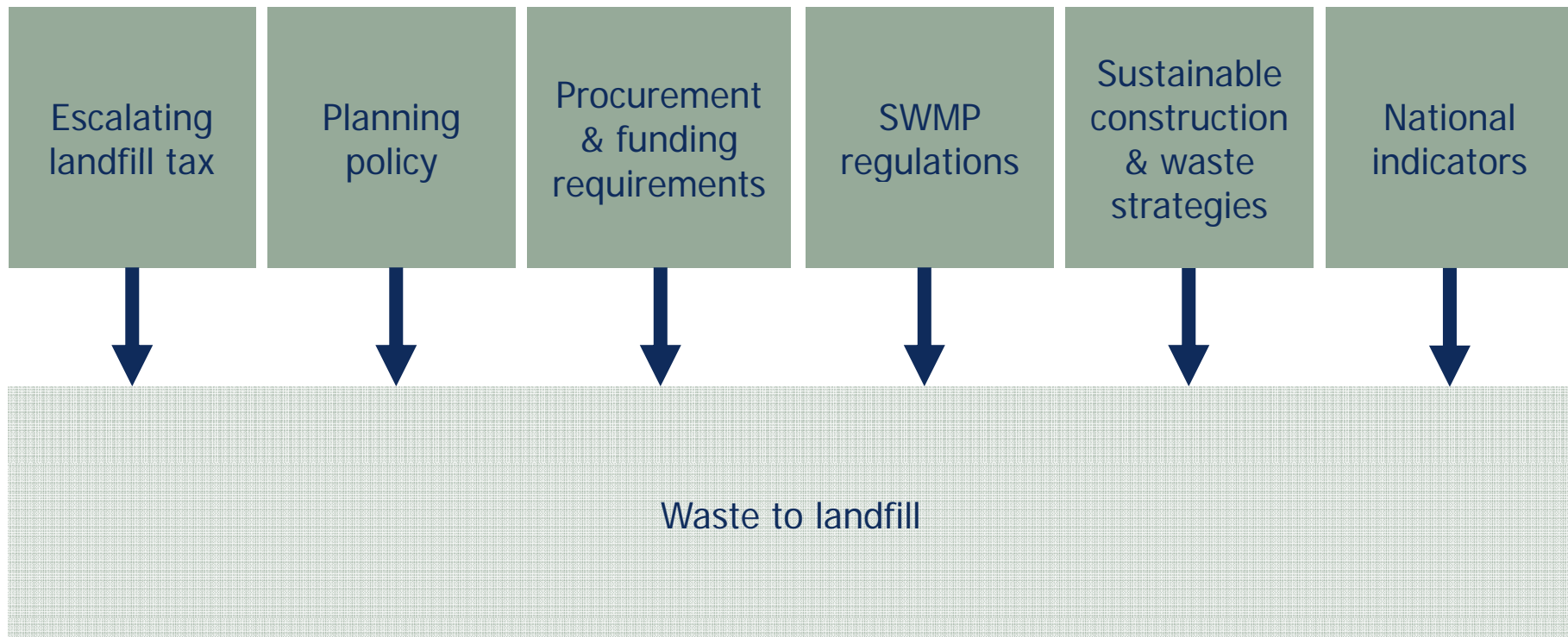
UK material consumption and waste arisings

- Overall material consumption by construction industry ~ 420 Million tonnes per year
- Waste generated ~ 120 Million tonnes
- **Unused material wasted ~ 20 Million tonnes per year**
- Waste recycled / reused ~ 60 Million tonnes



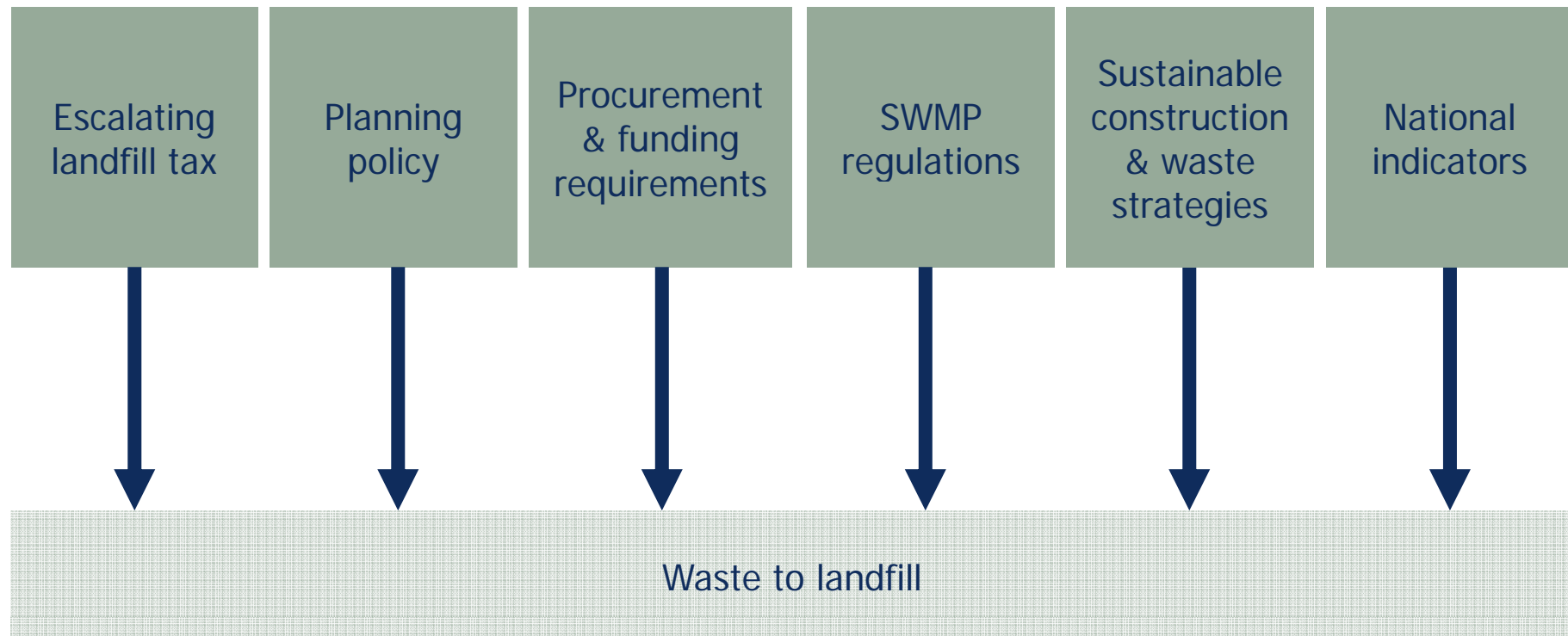


European, national and organisational drivers

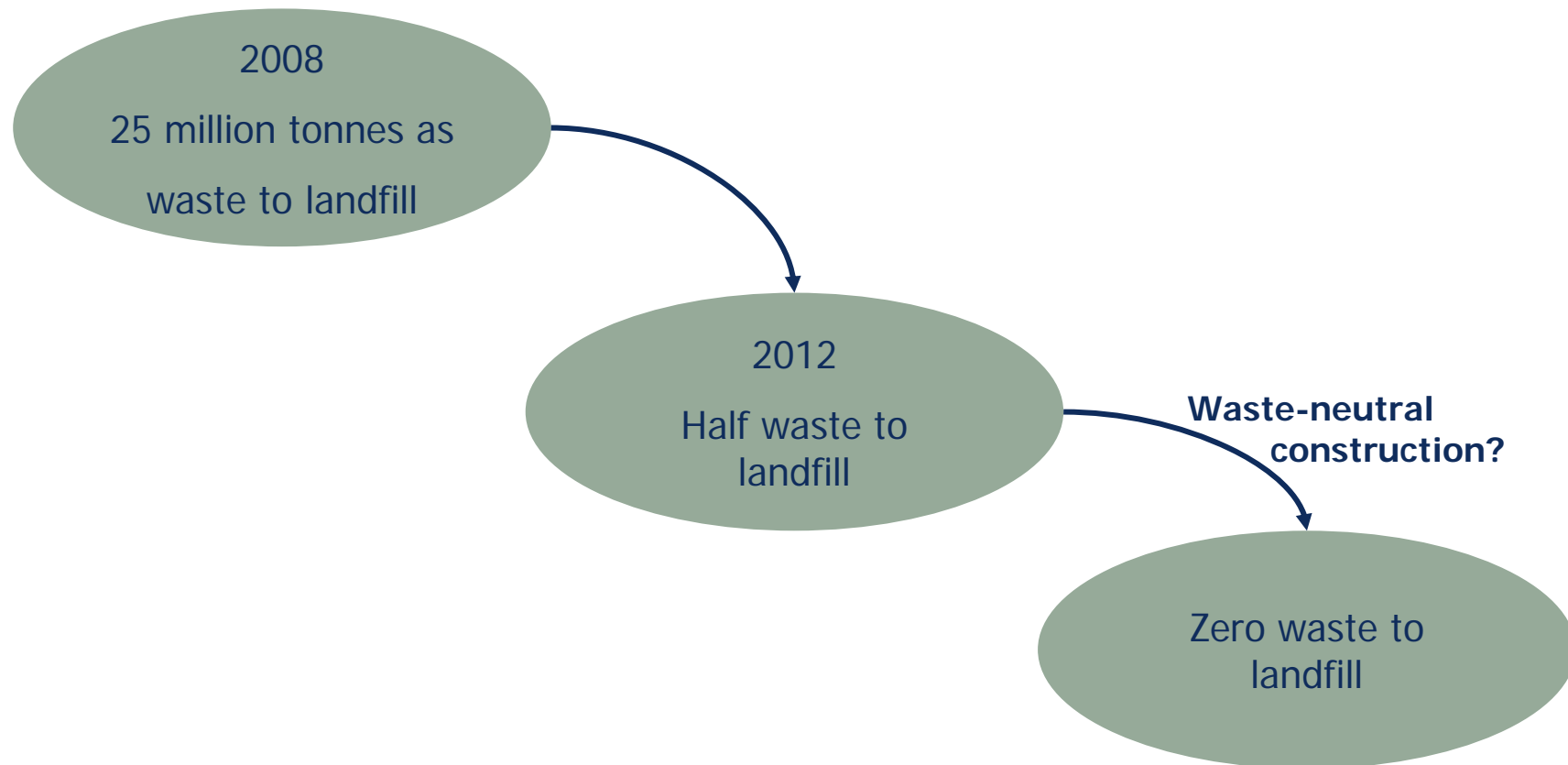




European, national and organisational drivers



The road to zero – Government targets





Environment Agency vision for low carbon Britain

“Opening the Environment Agency’s annual conference, chairman Lord Smith set out a ten-point list of essentials for the UK to achieve an 80% reduction in greenhouse gases by 2050.

Some of the things to aim for in the next 20, rather than 40 years, he said, include:

...

- Energy efficient buildings everywhere
- Hardly any waste going to landfill, with re-use and recycling the norm...
- Robust emissions and environmental targets for every major public and private sector organisation “



The Construction Commitments

- Strategic Forum for Construction
- Focusing on:
 - procurement & integration
 - commitment to people
 - client leadership
 - design quality
 - health & safety
 - sustainability



Slide 9

SW6

Logos of some of the signed up organisations to be added to bottom of slide

CNU74806MP, 22/08/2008



The WRAP Construction Commitments: Halving Waste to Landfill



"We agree to play our part in halving the amount of construction, demolition and excavation waste going to landfill by 2012.

We will work to adopt and implement standards for good practice in reducing waste, recycling more, and increasing the use of recycled and recovered materials"



Commitment actions



We will:

- *set a target for reducing waste to landfill*
- *embed the target within corporate policy and processes*
- *set corresponding requirements in project procurement and engage with our supply chain*
- *measure performance at a project level relative to a corporate baseline*
- *report annually on overall corporate performance*





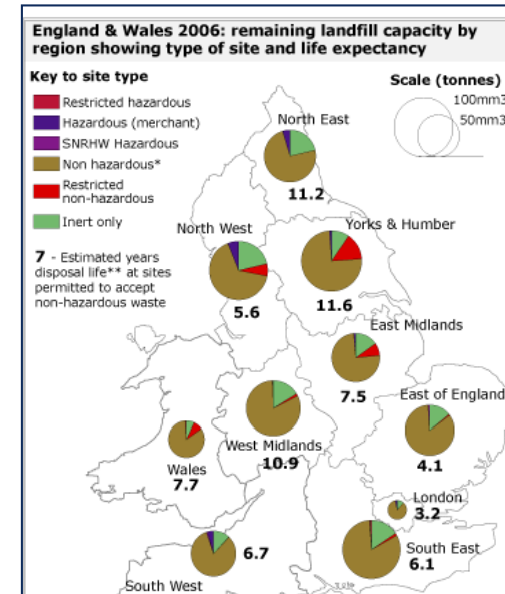
Environmental benefits



Reduced consumption of natural resources



Reduced CO₂ emissions



Reduced burden on landfill sites+

(+ © Environment Agency 2007)



Cost reduction

- True cost of waste
 - Landfill tax
 - Skip hire
 - Cost of wasted materials
 - Labour

- True cost of waste > £1,300 per skip

(Source: AMEC)





Skanska Bristol schools PFI



Cost of waste disposal:

- £42/t well segregated
- £238/t poorly segregated

Cost of waste:

- £274k estimated value of materials wasted at one school



"Reducing waste became part of the way we did construction"



Cost benefit analysis of real projects

Project type	Construction value (£million)	Cost of waste	Saving (A)	Cost of implementing good practice (B)	Net saving (A - B)
	£thousand				
Houses (20, timber framed)	1.3	46	21	10	10
Distribution centre (steel framed)	11	130	73	17	56
Office (concrete framed)	23	246	127	30	97
Hospital (in-situ concrete framed)	178	1193	552	53	498
Secondary school (steel framed)	22.5	347	160	27	133
Large office refurbishment (Cat B)	3.3	54	17	6	12



Summary

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