

**Mini sector presentation**

# **SPPI for Waste Management in the UK**

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**Aspasia Papa**



26<sup>th</sup> Voorburg Group meeting

Newport, 19-23 September 2011

# Synopsis

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- Definition of the service
- Pricing unit of measure
- Market size
- Market description
- Price determining characteristics
- Aggregation structure
- Pricing methods
- Index movements
- Evaluation of current methods

# Definition of the service

Division	Group	Class	Description
37	37.0	37.00	Sewerage
	38.1	38.11	Collection of non-hazardous waste
		38.12	Collection of hazardous waste
38	38.2	38.21	Treatment and disposal of non-hazardous waste
		38.22	Treatment and disposal of hazardous waste
	38.3	38.31	Dismantling of wreck
		38.32	Recovery of sorted materials
39	39.0	39.00	Remediation activities and other waste management

# Pricing unit of measure

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- ❑ **Nature of the service:** Long term contract agreements where price and delivery are well-specified for a number of periods
- ❑ **Pricing method:** Direct use of repeated services

## Sewerage activities

- ❑ Price per cubic meter
- ❑ Mogden formula

## Waste disposal

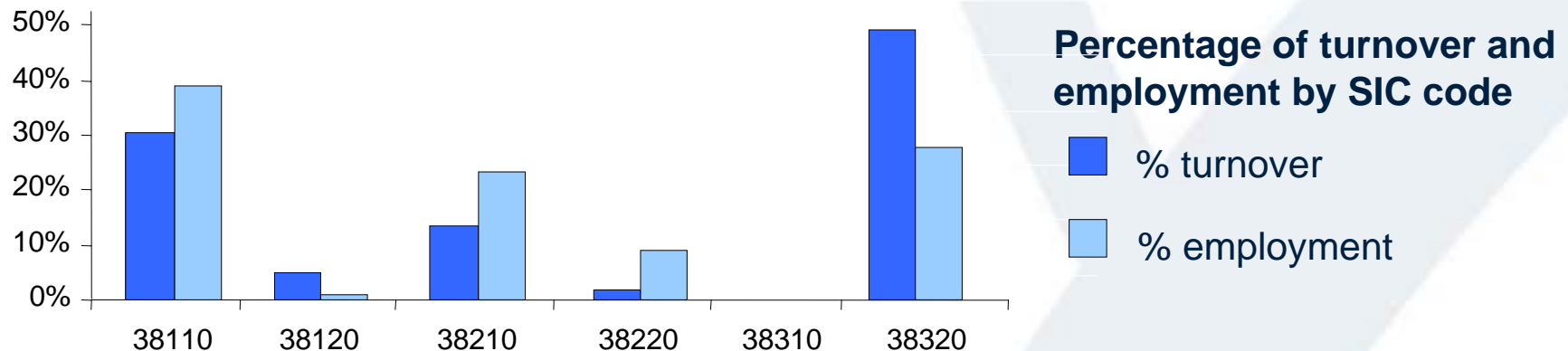
- ❑ Price per household
- ❑ Price per tonne
- ❑ Price per cubic meter

# Market size

## Sewerage activities

Employment band	Percentage of companies (%)	Market share (%)
0-9	77.51	2.89
10-49	19.05	4.51
50-299	2.44	2.33
300+	1.01	90.26

## Waste management and disposal



# Market description: Sewerage industry

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## Sectors

- Water supply
- Sewerage services

## Market structure

- England/Wales: 10 privatised water/sewerage companies (WaSCs)
- Scotland: 1 publicly owned statutory corporation
- Northern Ireland : 1 government-owned company (GoCo)

## Services provided

- Foul sewerage
- Surface water drainage
- Highway drainage
- Trade effluent

# Market description: Waste management

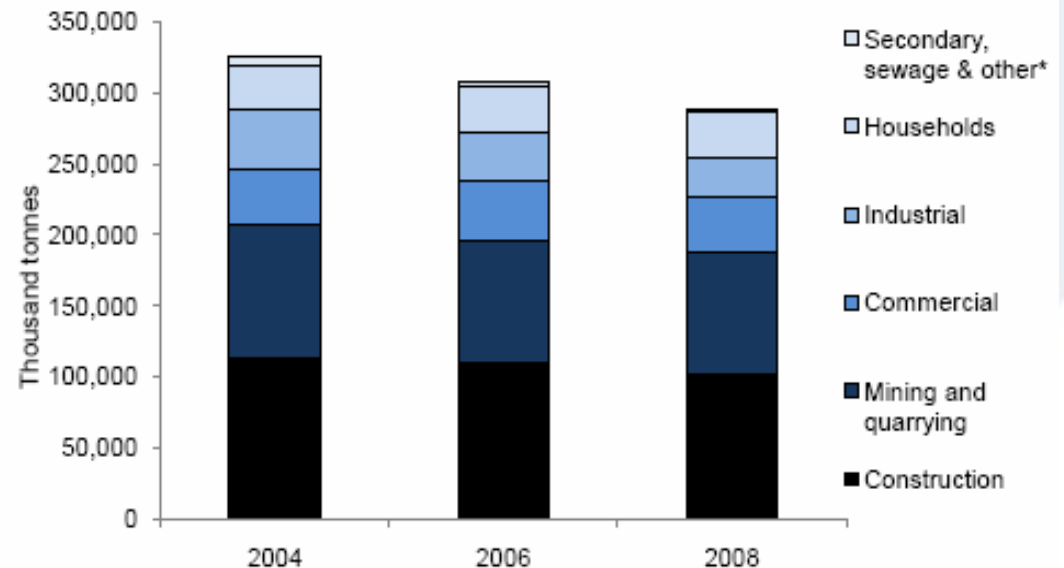
## Sectors

- ❑ Waste collection
- ❑ Waste management

## Services provided - Arisings

- ❑ Municipal Waste
  - Household waste
  - Commercial waste
  - Industrial waste
- ❑ Other waste
  - Minerals
  - Special waste
  - Sewage waste
  - Secondary waste

## Waste collection



\* 'Other' includes healthcare wastes, batteries & accumulators, & wastes containing PCB.  
Source: Defra – Waste Statistics Regulation return to Eurostat, 2004 to 2008

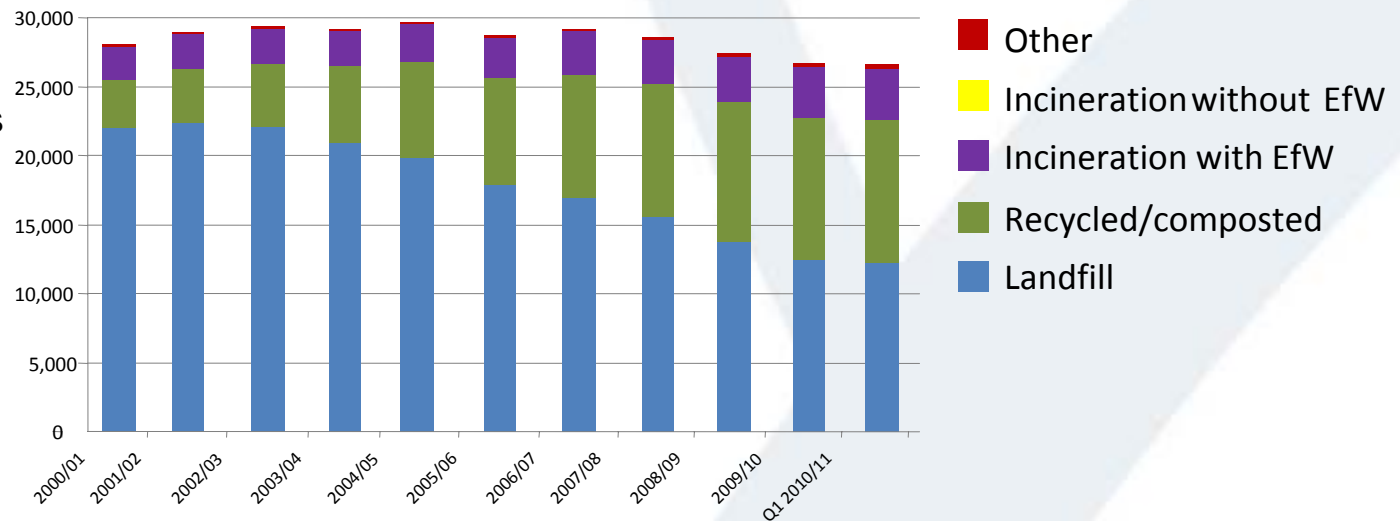
# Market description: Waste management

## Services provided: Methods of treatment and disposal

- Landfill sites
- Incineration
- Recycling
- Composting

## Waste Disposal

Local authority  
collected waste  
management methods  
in England  
(thousand tonnes)





# Price determining characteristics

## Sewerage

- ❑ Price limit to a basket of regulated charges set as: RPI +/- K +U
- ❑ Prices vary between locations to account for local conditions
- ❑ Depending on type of service / clients metered or un-metered

Service	Metered	Un-metered
Foul Sewage	Volumes recorded on the water meter adjusted	Rateable property value
Surface Water Drainage	Volumes recorded on the water meter adjusted	Rateable property value
Highway Drainage	Fee within the fixed charge	Rateable property value
Trade Effluent	Mogden formula Charge per unit of effluent = $R + [(V + Bv) + B(Ot/Os) + S(St/Ss)]$	

# Price determining characteristics

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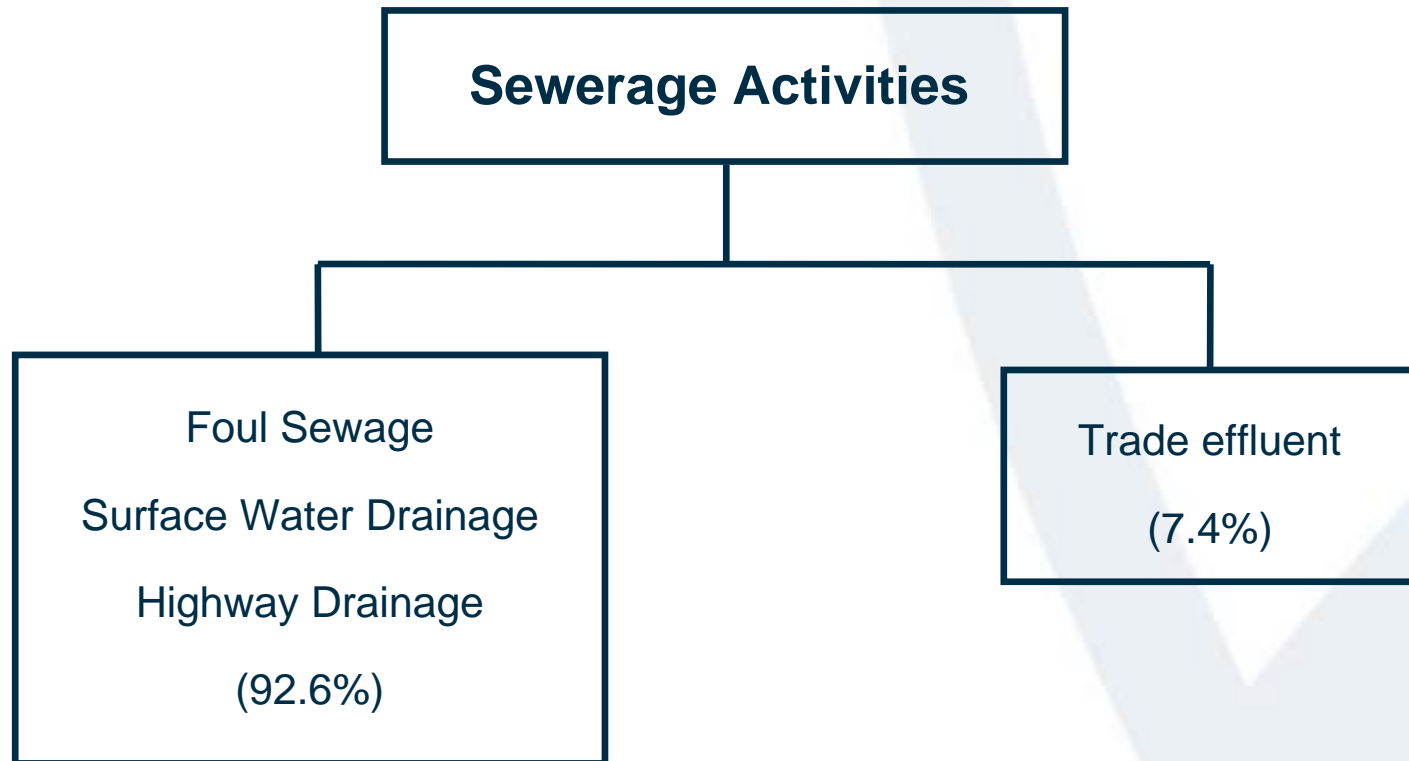
## Waste management

- Type of waste (household, commercial, construction)
- Nature of waste depending on treatment (toxic, recyclable, etc.)
- Coverage areas (waste disposal facilities radius)
- Type of collection service (frequency, specialised equipment/staff)
- Landfill tax

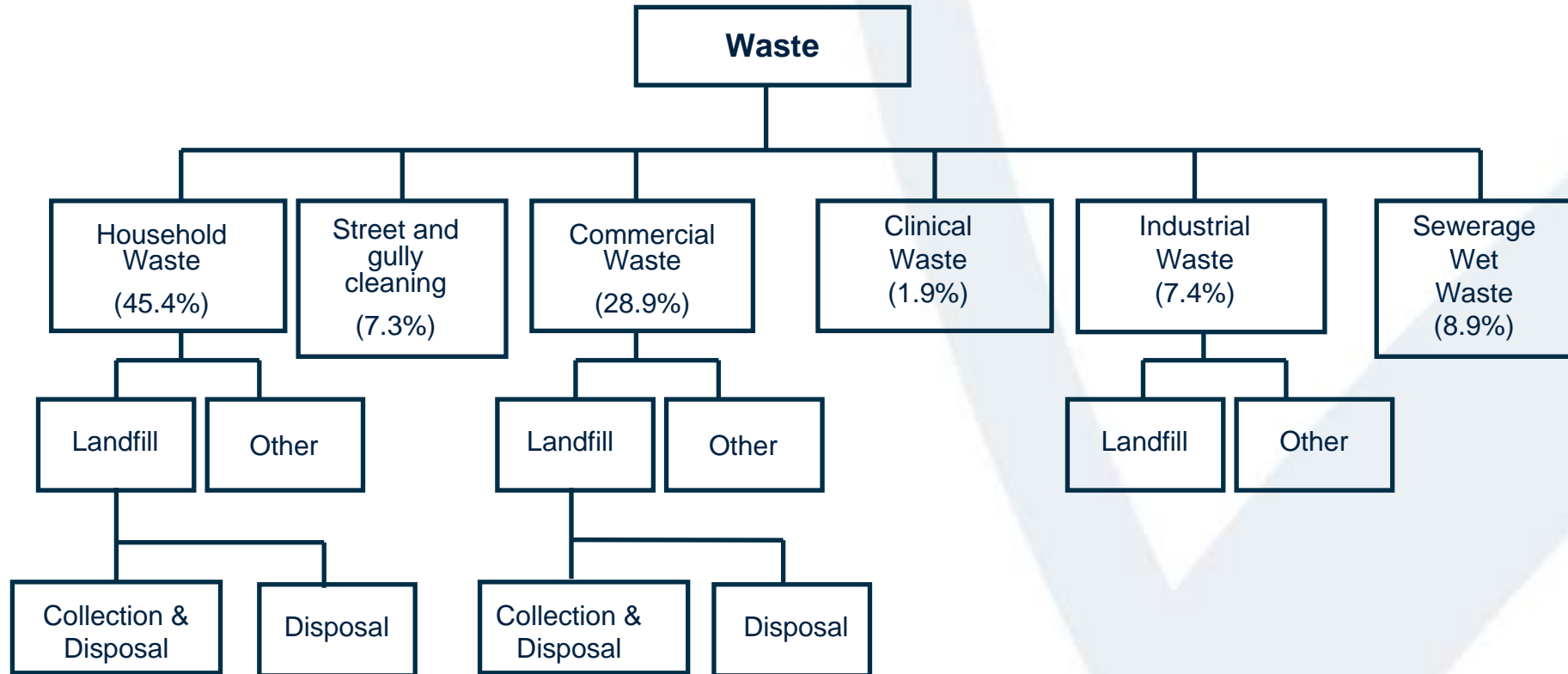
## Demand drivers

- Zero waste economy - emphasis on waste prevention
- Stricter EU regulations raise the cost of sending waste to landfill
- Policy instruments increase the demand for recycling
- Policies implemented in electricity and heat
- General economic, demographic and climate characteristics

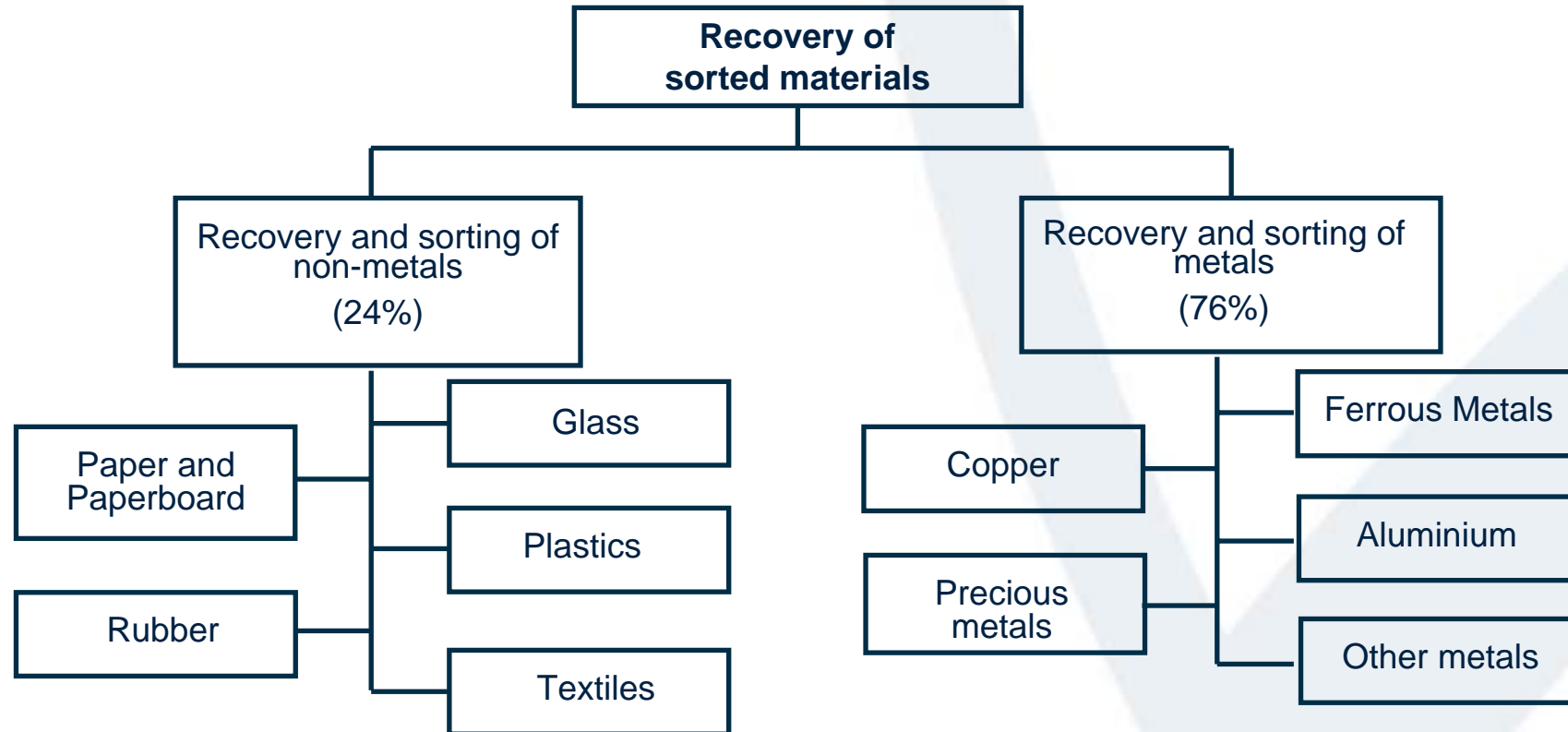
# Aggregation structure: Sewerage



# Aggregation structure - Waste



# Aggregation structure - Recycling



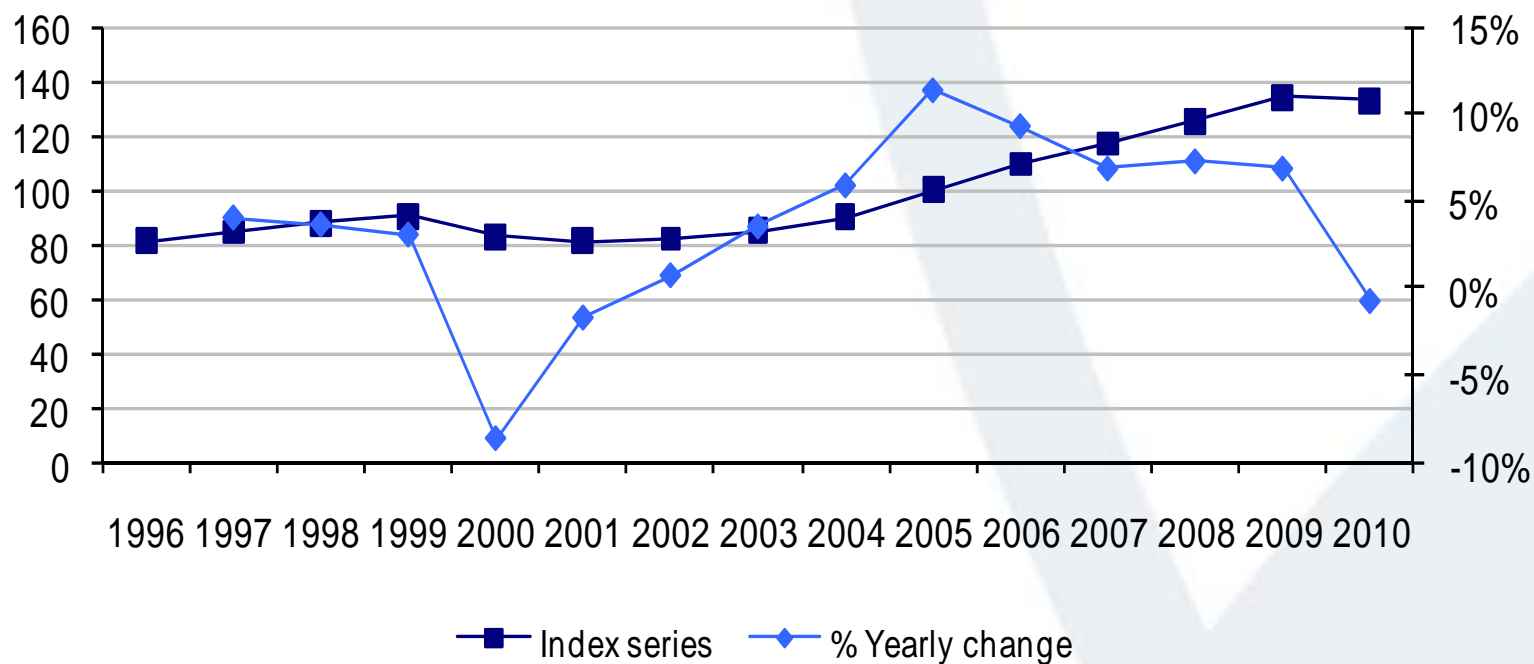
# Pricing methods

<b>Class</b>	<b>Sewerage</b>	<b>Collection of non-hazardous waste</b>	<b>Recovery of sorted materials</b>
<b>Sampling</b>	Purposive	Simple Random Sampling	Simple Random Sampling
<b>Periodicity</b>	Yearly	Quarterly	Quarterly
<b>Companies</b>	10	36	39
<b>Items</b>	20	125	45

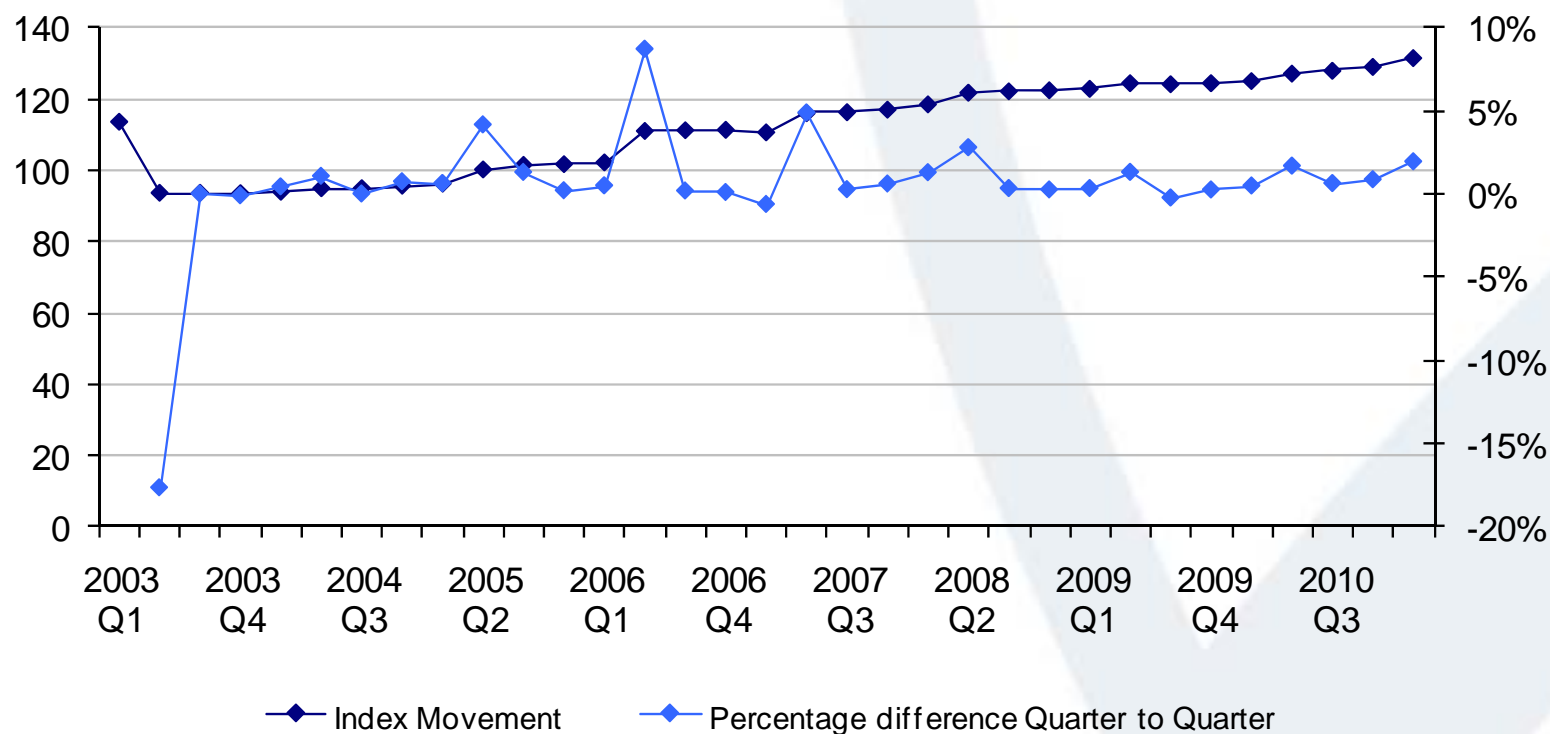
## Quality change

- Telephone queries with respondents for any atypical movement
- Methods for quality change: Direct comparison, Direct quality adjustment, Imputation

# Analysis: Sewerage

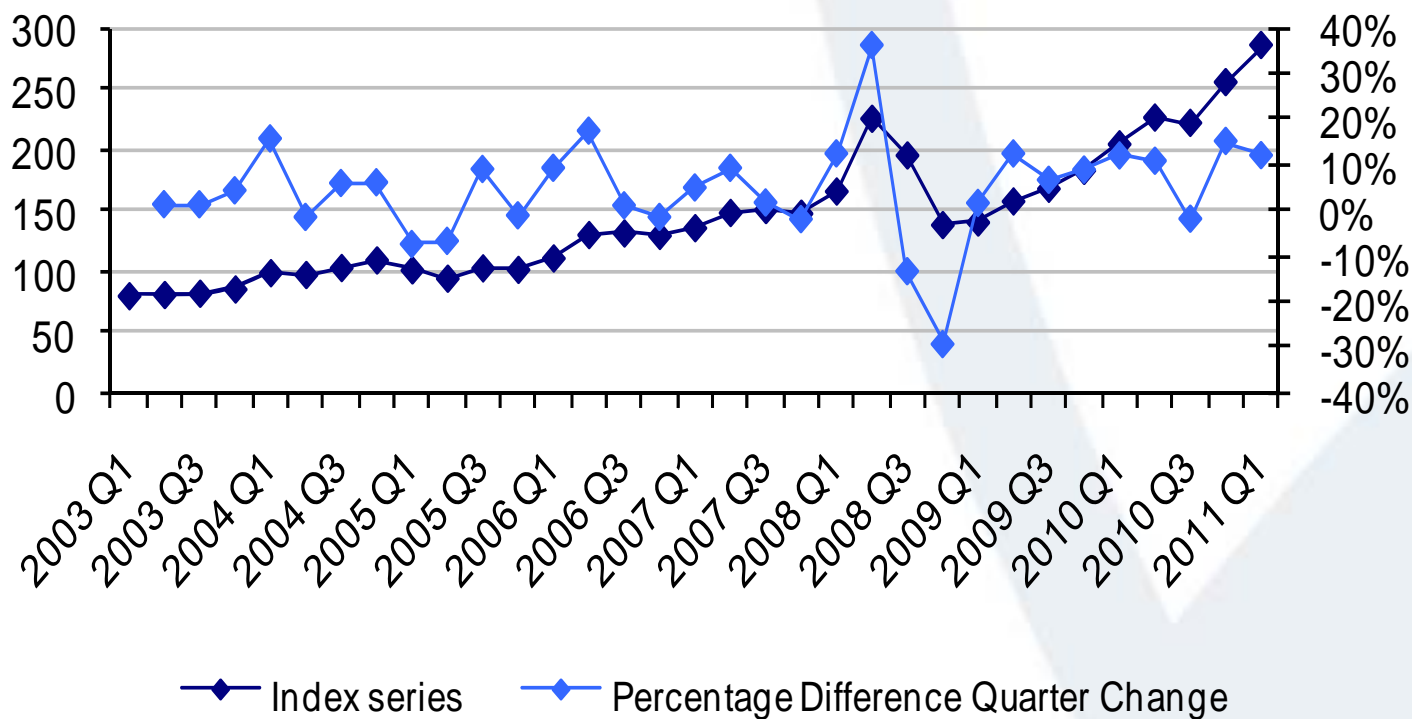


# Analysis: Waste disposal





# Analysis: Recycling



# Evaluation of current methods

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## National Accounts perspective

National Accounts (NA) use the SPPI indices for deflation purposes:

- ❑ Division 37 uses the SPPI division 37
- ❑ Division 38 uses the SPPIs for 38.11 and 38.32 and
- ❑ Division 39 applies the aggregate SPPIs for division 38

## Sewerage

- ❑ Prices for un-metered supplies not included
- ❑ Northern Ireland and Scotland not covered
- ❑ New product lines bespoke to clients requirements not captured

## Waste disposal

- ❑ Sewerage wet waste collected twice
- ❑ Recycling index captures product side of the industry rather than service
- ❑ Need to differentiate between businesses that recycle and those that buy and re-sell goods without processing them



Office for  
National Statistics  
Swyddfa  
Ystadegau Gwladol

## Thank you for your attention

# Questions and answers

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