MEASURING WASTE MARKETS
In the UK and EU

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Who are Tolvik?

- A specialist provider of quality, independent, market analysis providing expert commercial advice across the waste and related sectors
- Clients include major waste companies, project finance banks and investment funds
- Published report in July 2010 considered Residual Waste market in England and Wales
- Identified national and regional trends

Contents

- Getting the facts straight – some European lessons on waste supply and infrastructure capacity
- How does the UK compare?
- The UK market in 2011 and beyond – some predictions

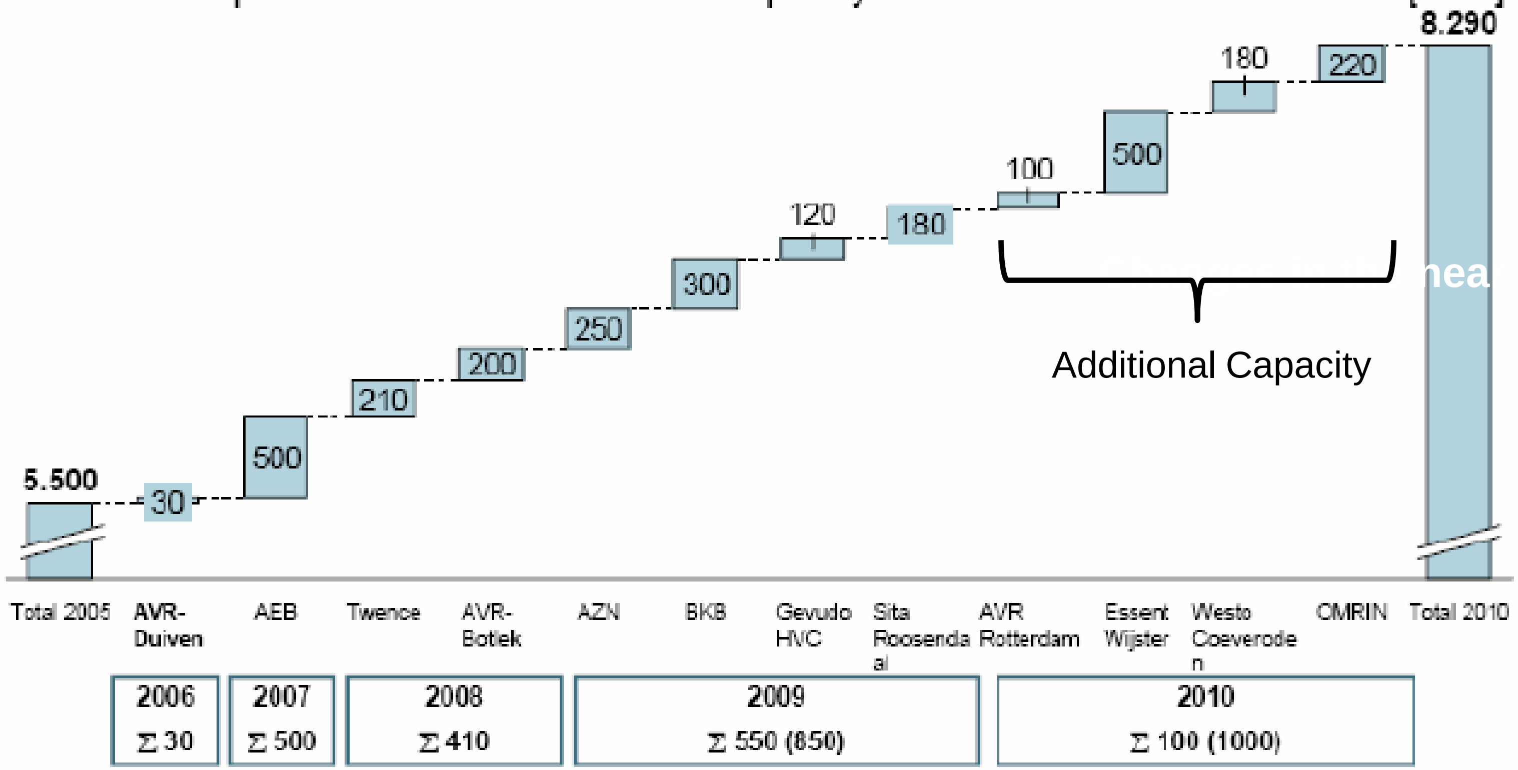
The Netherlands - 2006

		2006
Sources	Incinerated	5.3Mt
	Landfilled Combustible	0.7Mt
	Exported Combustible	2.0Mt
	Wood Exported	1.0Mt
	Sludge	2.3Mt
	TOTAL	**11.5Mt**
Capacity	EfW	5.4Mt
	Under Construction	2.0-2.4Mt
	TOTAL	**7.4-7.8Mt**
CAPACITY SHORTFALL		**3.7-4.1Mt**

The Netherlands - 2007

Additional incineration capacity will be built in the coming years to support additional volumes – some see equilibrium as early as '09

Current and planned waste incineration capacity the Netherlands[1] 2005-2010 [kton]



1) Long term investments are uncertain because of environmental and governmental resistance, future capacity expectations, etc.

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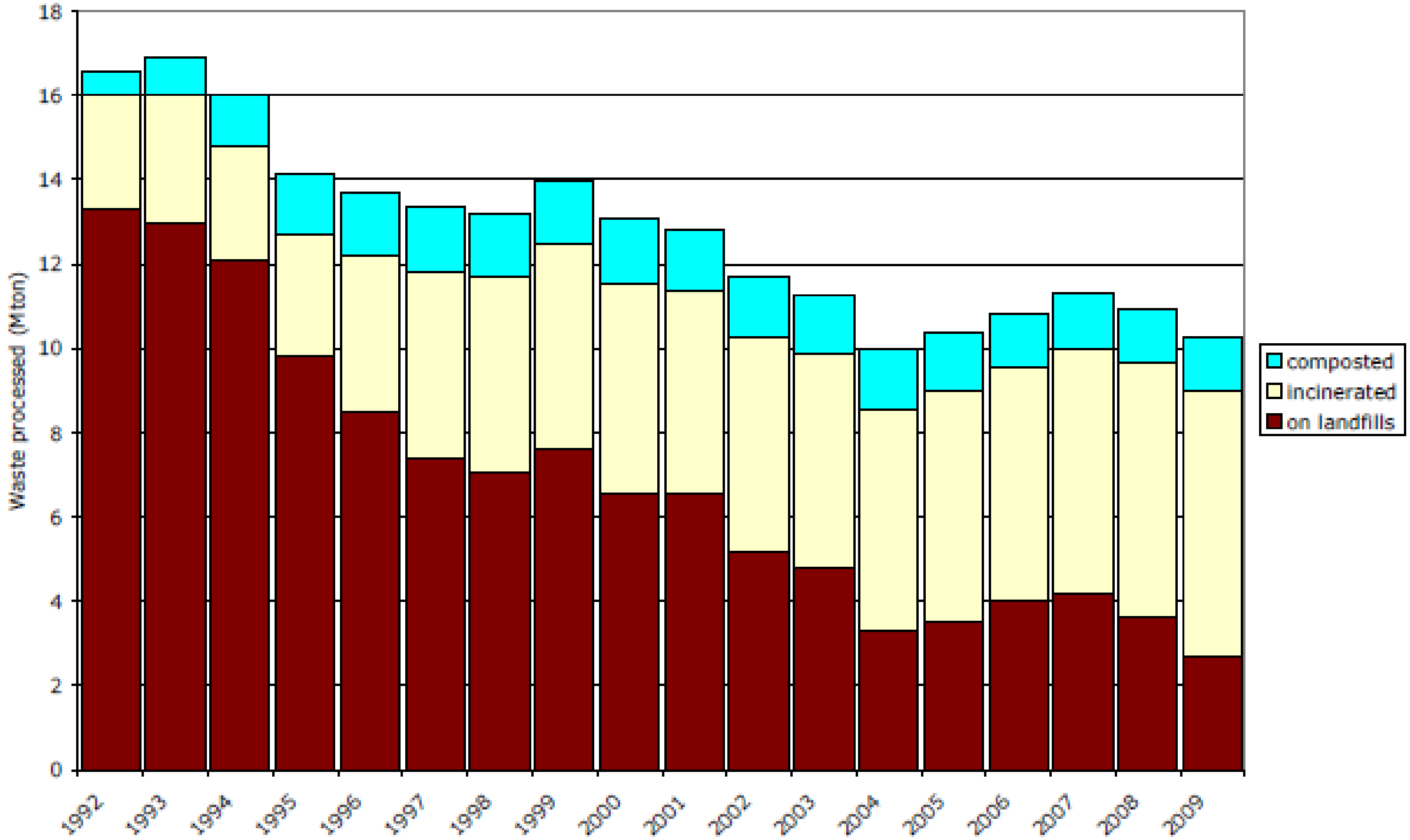
The Netherlands - 2009

Tonnage of Waste Processed in Netherlands



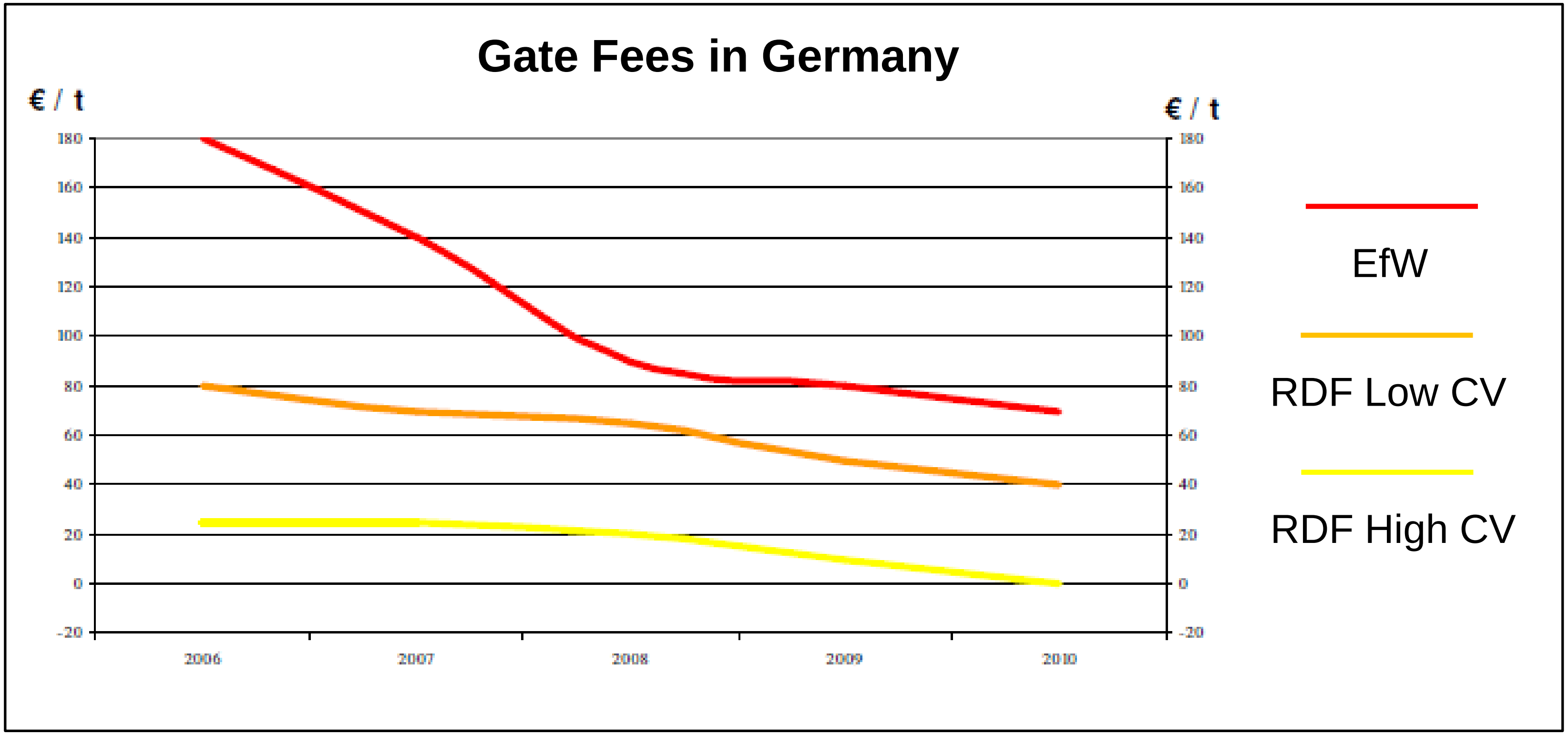
The Netherlands - 2009

		2006	2009
Sources	Incinerated	5.3Mt	6.3Mt
	Landfilled Combustible	0.7Mt	-
	Exported Combustible	2.0Mt	???
	Wood Exported	1.0Mt	???
	Sludge	2.3Mt	???
	TOTAL	**11.5Mt**	**6.3Mt**
Capacity	EfW	5.4Mt	7.2Mt
	Under Construction	2.0-2.4Mt	0.6Mt
	TOTAL	**7.4-7.8Mt**	**7.8Mt**
OVER-CAPACITY		**3.7-4.1Mt**	**1.5Mt (19%)**

Germany – 2010

		2010
Sources	Municipal Direct	12.5Mt
	MBT Outputs 50% x 5.6Mt	2.8Mt
	Bulky Waste 30% x 2.3Mt	0.7Mt
	Commercial Waste 70% x 9.5Mt	6.6Mt
	Plastic Packaging 50% x 2.8Mt	1.4Mt
	TOTAL	**24.0 Mt**
Capacity	EfW	20.0 Mt
	RDF – Power Plants	5.2 Mt
	RDF – Co-incineration – cement kilns etc	2.5 Mt
	Under Construction	1.3Mt
	TOTAL	**29.0 Mt**
OVER-CAPACITY		**5.0 Mt (17%)**

Germany – 2010



- Above are blended rates, spot rates of €40/t reported
- Long term over-capacity
- Sustainability implications?

Could this happen in the UK?

- ✓ Declining tonnages
- ✓ Landfill Ban in Scotland/Wales
- ✓ Landfill Tax
- ✓ Rush to secure market share

- ✗ Understanding the market
- ✗ No Landfill Ban in England
- ✗ Availability of landfill
- ✗ Ease of financing and development

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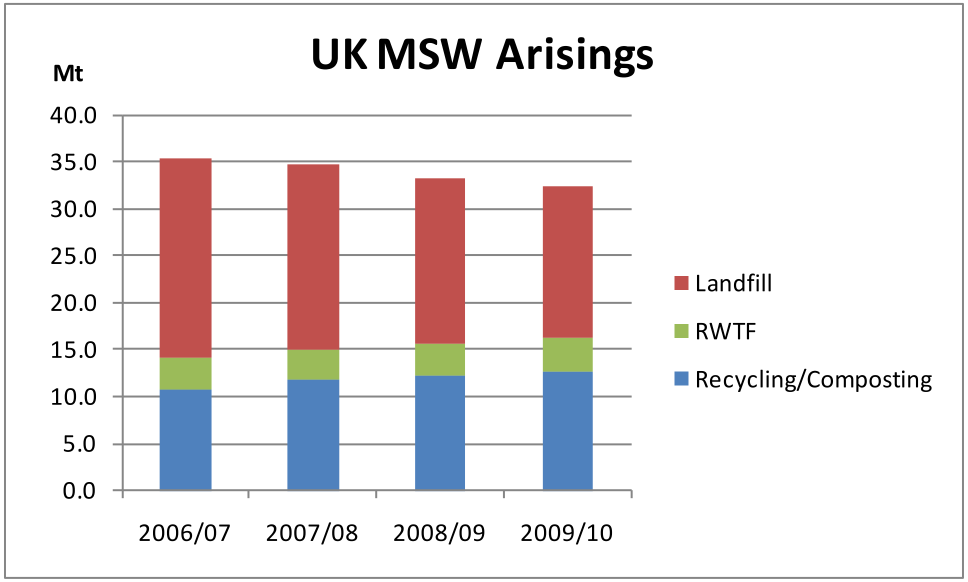
Declining MSW Arisings



Source Devolved Authorities

- Average 3% pa reduction in arisings over last 4 years:
  - Recession
  - AWC
  - Commercial Waste

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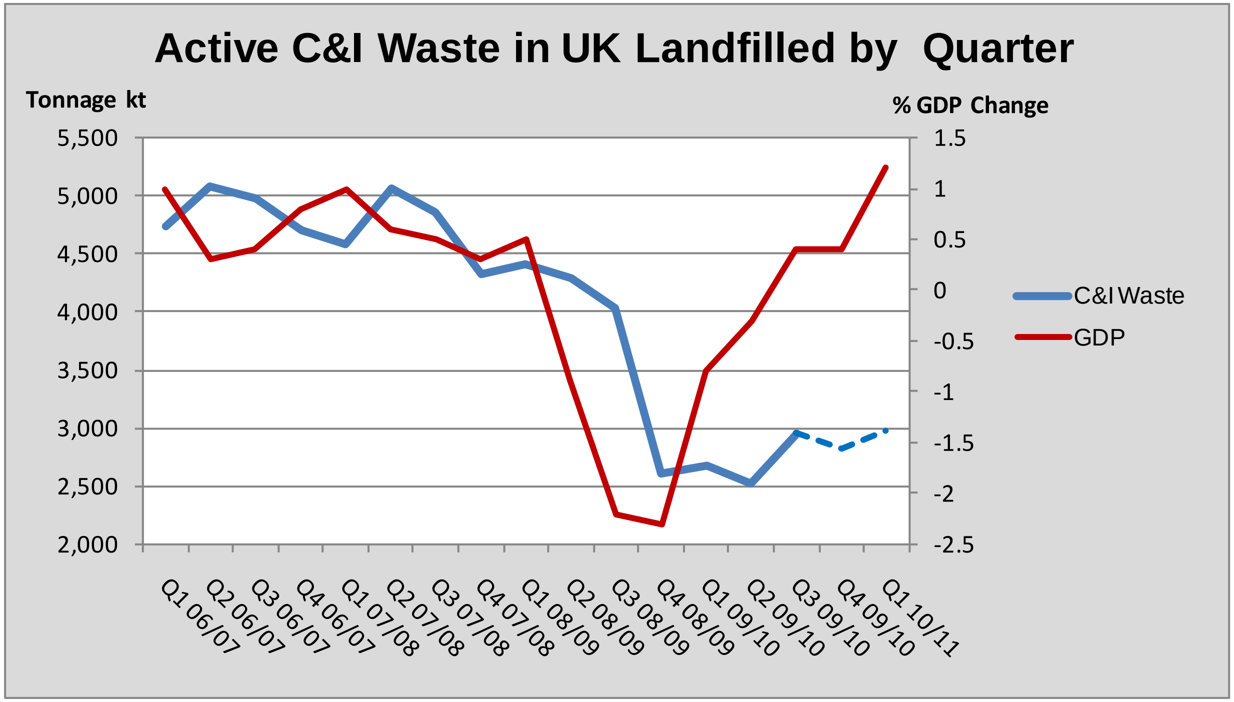
Declining C&I Waste Arisings

'000s tonnes	2002/3	2009	Change
Industrial	37,587	24,173	-35.7%
Commercial	30,320	23,844	-21.4%
TOTAL	**67,907**	**48,018**	**-29.3%**

England, Source DEFRA/EA

- Compound 3.7% pa reduction over last 7 years
- Drivers for reduction:
  - CSR/Voluntary commitments
  - Producer Responsibility
  - Mix of commercial/ industrial
  - GDP

Declining C&I Waste Arisings



- A dangerous representation......but a coincidence?

Landfill Bans

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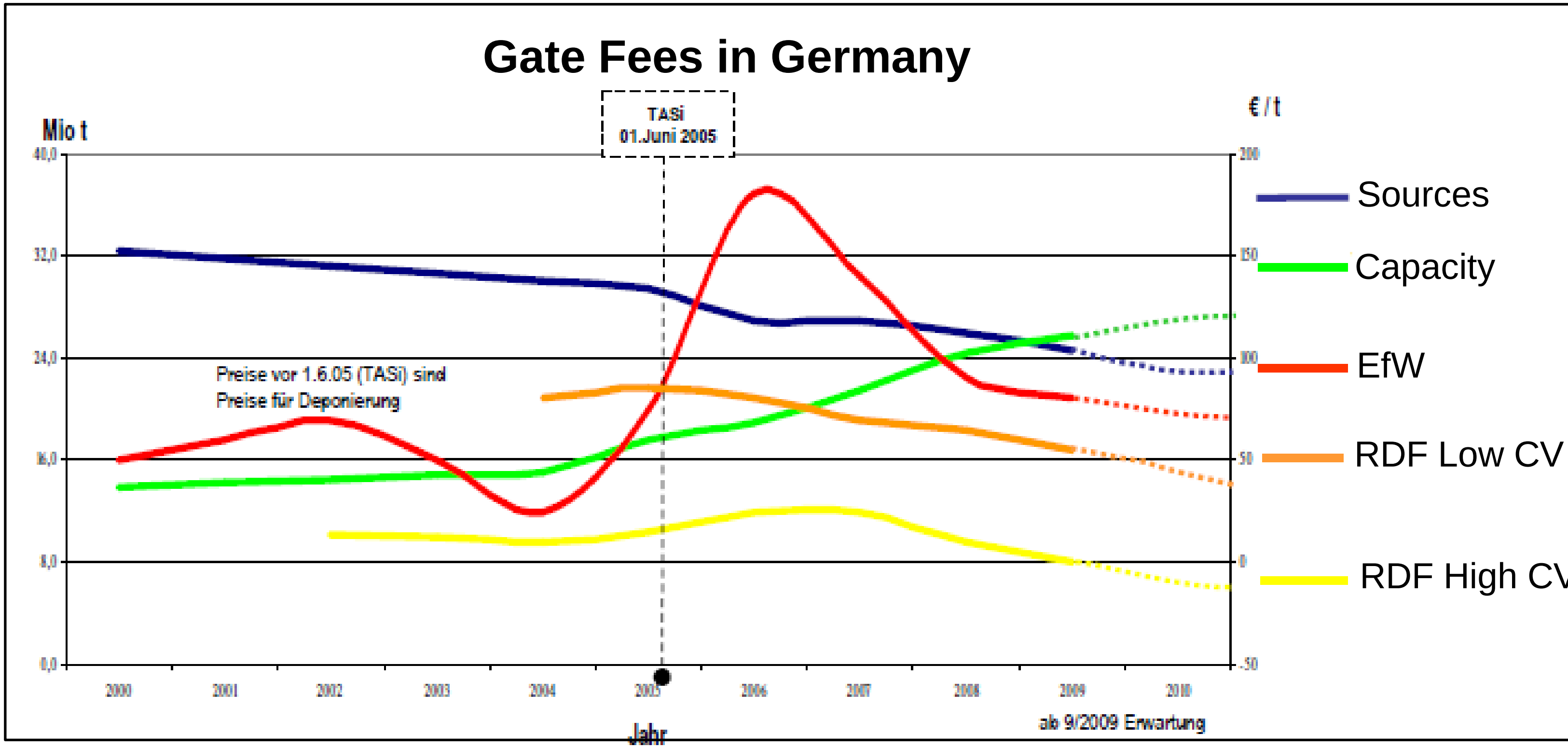

- Landfill Ban (TASI) in June 2005
- Obvious effects on gate fees
- Stimulated development of new facilities

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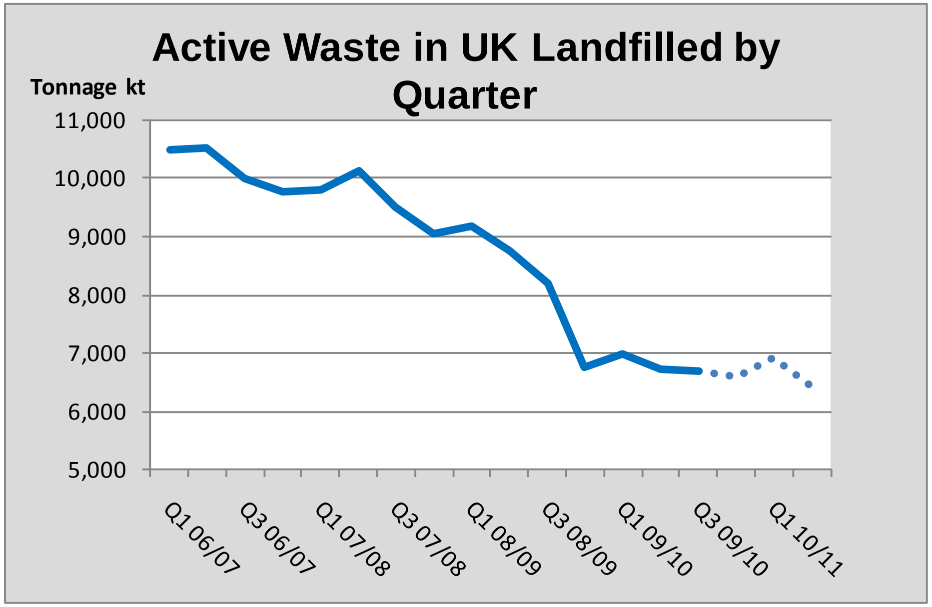
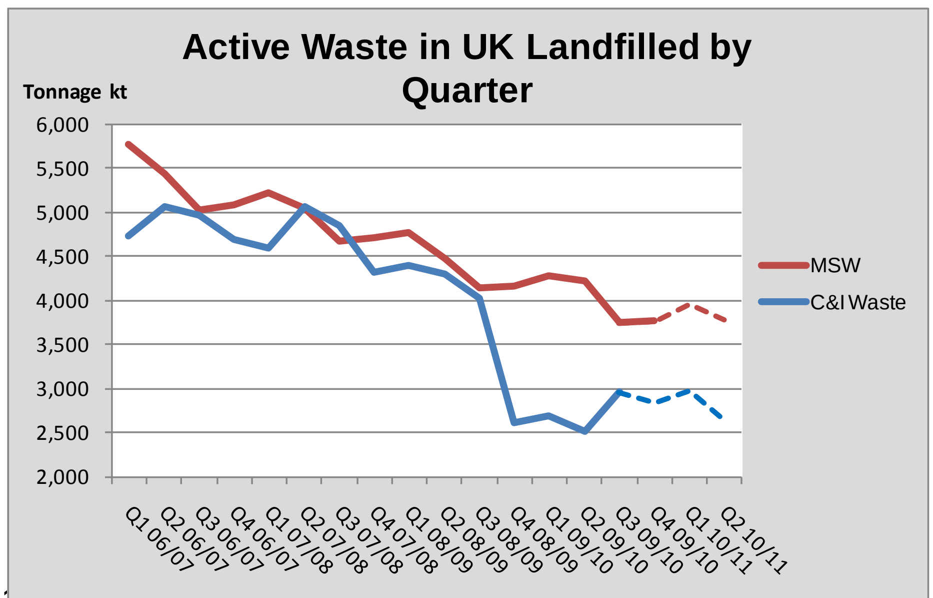
Landfill Tax





- Dramatic reduction in 2008/09
- Coincided with recession
- But flattening off in the last 12 months
- Recent £8/t increase has had no obvious effect
- Why?

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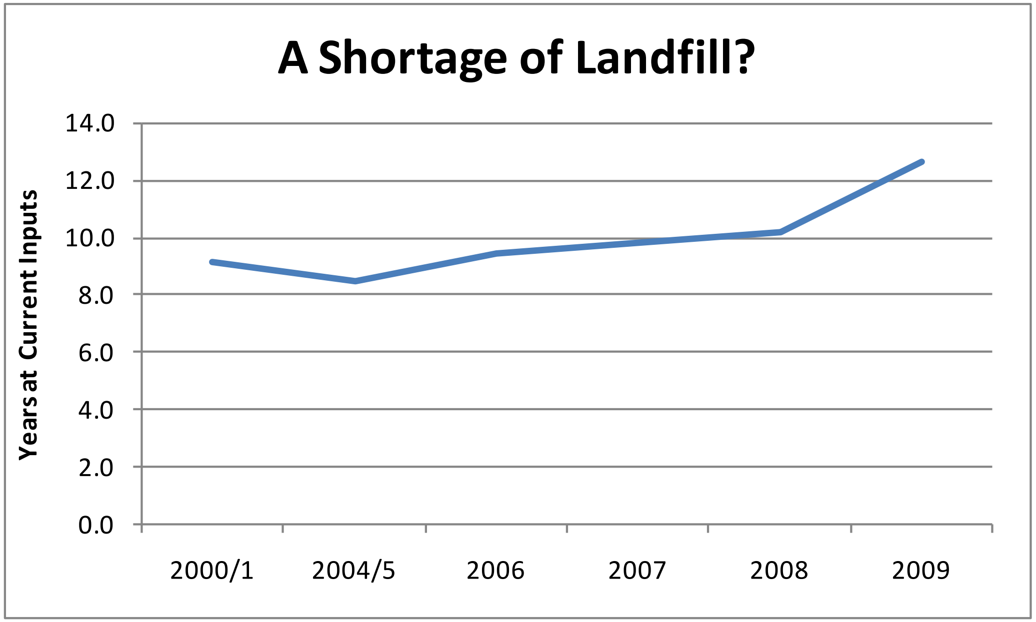
Understanding the market

- Increasingly baseline data is available – eg DEFRA recent C&I Waste Report
- A range of sources
- A range of projection methodologies

Landfill Void Availability



- Significant reduction in landfill numbers - now only c. 500
- Regional shortages – South Coast
- But significant void remains

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RWTF Recent Capacity Development

- Development of new capacity very slow – especially EfW
- Recent/current projects
  - EfW - Riverside (585ktpa), Newhaven (242ktpa), Ineos RDF(850ktpa), Lancing (40ktpa)
  - MBT – Manchester PFI (575ktpa), Avonmouth (200ktpa), Leics (50ktpa), Cambs PFI (170ktpa), Lancs PFI (350ktpa), Southwark PFI(80ktpa), Cumbria PPP(150ktpa)......

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UK – 2020 Forecasts (Residual Waste Only)

		2020
Sources	Eunomia – July 2010	22.0Mt
	Shanks – Nov 2010	24.2Mt
	Tolvik Central – July 2010	25.5Mt
	AVERAGE	**23.9Mt**
Capacity	Current Thermal	5.1Mt
	Current MBT/Autoclave	1.5Mt
	Under Construction	2.9Mt
	TOTAL	**9.5Mt**
	Additional Planned	**19.4Mt**
CURRENT SHORTFALL		**14.4Mt**
POTENTIAL SHORTFALL		**(5.0)Mt**

- Excludes RDF, wood waste, animal wastes etc

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Thank you for listening

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