# Capital factsheet on separate collection

**Note**: This 'Capital factsheet' has been prepared within the EC study "**Assessment of separate collection schemes in the 28 capitals of the EU**". The document represents the status-quo of the EU Member States capitals in May2015. The information included in this document has been elaborated for all 28 EU-capitals based on expert interviews with various stakeholders on capital level, e.g. capital administrations, waste management operators, associations etc. as well as further publically available reports, statistics and websites.

All information is cited in the factsheet and a complete list of information sources including the interviews held can be found at the end of this document.

# London

# **United Kingdom**

**SUMMARY**: London has a wide variety of separate collection systems in place. London's municipalities generally rely on door-to-door co-mingled collection of dry recyclables (paper/cardboard, glass, plastic and metal). Some municipalities separately collect some of these fractions (particularly paper, with 26% household coverage), while some also separately collect bio-waste. Paper and bio-waste are collected in considerably larger, although approximately 75% of the door-to-door collected paper is co-mingled with other (dry) waste fractions. Quality of the co-mingled dry fractions varies significantly, and the final destination of waste is not easily discernible. The bring point system delivers far lower output; it does not play a significant role as regards collected amounts.

1 Capital general data			
City population (inhabitants)	8 173 941		
City area (km²)	1 572.15		
City density (persons/km²)	5 199		
City climate (mediterranean, continental, oceanic, nordic; relevant for bio-waste collection)	Oceanic		
2. Capital waste data			
Total (municipal) waste generation (t in indicated year)	3 560 990 t (2012) [1]		
Total (municipal) waste generation (kg/cap)	435 kg/cap [5]		
Total separate collection (kg/cap) & (% of generation)	134 kg/cap; 31% of generated [2]		
Percentage breakdown of total collection for separate collection by fraction	<ul> <li>34% paper and cardboard [2]</li> <li>12% glass</li> <li>5% plastic</li> <li>4% metal</li> <li>28% bio-waste</li> <li>16% other</li> </ul>		

# 3. Description of overall separate collection systems operating in capital [1] [2] [4]

Of the 33 London municipalities (boroughs), 12 are responsible for both collection and disposal of their waste (of these four have come together in a joint waste management partnership), while 21 are responsible for the collection only: disposal is managed by four inter-municipality authorities.

All municipalities provide door-to-door services for paper, mixed cans, and plastic bottles, and all but three collect glass. All boroughs provide near-entry (close to block or estate entrances) or bring site recycling banks for flats and estates, although there is variation between boroughs on what materials are accepted, with the acceptation of the four core materials. All





except four boroughs provide a garden waste collection service (some with combined food waste). 17 boroughs offer separate door-to-door food waste collection service.

#### Schemes:

25 municipalities (22 for flats) offer co-mingled collections of dry recyclables, two boroughs (five for flats) offer two-stream (typically paper + mixed) and three offer multi-stream (two or more mixed bins).

**Paper and cardboard:** Paper and cardboard is co-mingled with other recyclable fractions for door-to-door collection in most London boroughs although is separately collected from 26% of households, and can be delivered to some bring sites and all civic amenity sites

**Glass**: Glass is co-mingled with other recyclable fractions for door-to-door collection in most London boroughs although it separately collected from 8 % of households, and can be delivered to most bring sites and all civic amenity sites

**Plastic**: Plastic is co-mingled with other recyclable fractions for door-to-door collection in almost all London Municipalities, and can be delivered to some bring sites and all civic amenity sites

**Metal:** metal packaging is co-mingled with other recyclable fractions for door-to-door collection and can be delivered to certain bring points. Metal packaging and other metal waste can be delivered to civic amenity sites

Annual Running Costs: €192 Million for total waste collection in 2012 [4] [6]

### Setup costs: Not available

#### Coverage:

- 26 % of households have door-to-door separate collection of some fractions (together with co-mingled collection) [5]
- 73 % of households have only door-to-door co-mingled collection [5]
- 1 % households have neither [5]

Municipalities collect trade waste from 55 090 (6.8%) of the approximately 806 000 businesses located in the capital, while only around 20 000 (2.5%) have recyclable waste collection. [4]

#### 4. Elements of the collection system

## MUNICIPALITIES OR THEIR CONTRACTORS



Door-to-door collection of source separated waste

Fractions collected	Paper, glass, bio-waste, Plastic [5]				
Collection	Paper: weekly/ every two weeks [5]				
frequency	Glass: weekly/ every two weeks [5]				
	Bio-waste (Food): weekly; (Garden) weekly/ every two weeks [5]				
	Plastic: weekly [5]				
Coverage of	Paper: 26 % of households + > 2 200 businesses [5]				
collection	Glass: 8 % of households + > 1 500 businesses [5]				
	Bio-waste (Food): 33 % of households + >1 800 businesses; (Garden) 49 % of households [5]				
	Plastic: 10% [5]				
Annual collected	Paper: 87 486 t (10.7 kg/cap) [2]				
quantities	Glass: 25 249 t (3.1 kg/cap) [2]				
	<b>Bio-waste</b> (Garden & food) : 254 019 t (31.1 kg/cap) [2]				
	Plastic: 8 910t (1 kg/cap) [2]				
Setup costs	Not available				
Running costs	€175 - 234 /t, €21-33 /household (in 2009)[6]				
Source of funding	Municipal service tax (flat fee) [4]				





Cost to consumer	Paper and glass: free				
(annual) Garden: some annual charges (Approx. €69) or charges per container/bag (Approx. €2 per					
	container/bag) [5]				
Door-	-to-door collection of co-mingled recyclables				
Fractions collected together in one bin	Paper & cardboard, plastic, glass, metal. Fractions included vary from borough to borough [5]				
Collection frequency	Weekly or every two weeks [5]				
Coverage of	94% Households + >17 000 businesses [5] have some form of co-mingled collection. The remaining 6%				
collection	of households have full separately collection				
	Fractions included vary from borough to borough. Where material is source separated collected (see above) it is not co-mingled.				
Annual collected	Total: 422 869 t [2]				
quantities	Paper & cardboard: 252 292t				
*fractions calculated based	Glass: 99 903 t				
on UK average dry	Plastic: 44 884t				
recyclable composition	<b>Metal</b> : 25 790 t				
Setup costs	Not available				
Running costs	€91 -156 /t; €16 -35 per household (in 2009) [6]				
Source of funding	municipal tax				
Cost to consumer (annual)	Free of costs				
Bring	Collection Points				
Fractions collected	Paper, glass, plastic, metal (+ textiles)				
Number of	1 657				
collection points	20.3 per 100 000 inhabitants [2]				
Collected	Paper: 8 715 t & kg/cap [2]				
quantities	Glass: 8 428 t & kg/cap [2]				
	<b>Plastic</b> : 568 t <b>&amp;</b> kg/cap [2]				
	<b>Metal</b> : 733 t <b>&amp;</b> kg/cap [2]				
Setup costs	Not available				
Running costs	Not available - only the total costs for waste collection are available (€208 million / year) [4]				
Source of funding	Waste budget				
Cost to consumer	Free of costs				
Bring-i	n Civic Amenity sites				





Fractions collected	Paper, Glass, Plastic, Metal, bio-waste					
Number of sites	35					
	0.4 per 100 000 inhabitants [2]					
Collected	Paper: 11 360 t (1.4 kg/cap) [2]					
quantities	Glass: 578 t (0.1 kg/cap) [2]					
	Plastic: 2 406 t (0.3 kg/cap) [2]					
	Metal: 12 634 t (1.5kg/cap) [2]					
	Bio-waste (garden waste): 56 596 t (6.9kg/cap) [2]					
Setup costs	Not available - only the total costs for waste management are available					
Running costs	Not available - only the total costs for waste management are available					
Source of funding	Waste budget + fees					
Cost to consumer	Free, or €10-70 /vehicle, depending on location, size of delivery vehicles and type of waste					

#### **BARRIERS TO IMPLEMENT SEPARATE COLLECTION**

- Waste management in London is devolved to a large number of local authorities, which makes coordinated action and negotiation more complicated and potentially less effective. [6] [4]
- Lack of unified system of separate or co-mingled collection means that it is difficult to use citywide information campaign can be used to improve collection rates. [10] [4]
- Socio-economic conditions seem to play an important role in the level of recyclables collected areas of higher Index of multiple deprivation (MDI) scores tend to have lower recycling collection yields. [6]
- Apartment buildings also pose a problem for separate or co-mingled collection, but can also provide cleaner separately collected fractions in some cases. [6]
- The market for recyclable materials (paper, plastic, glass and metal) impacts the viability of the waste recycling / collection system as a whole. As does the absence of local demand for materials. [6]

#### **ADDITIONAL FINDINGS**

- Co-mingled collection has been shown to provide substantial cost savings in some municipalities, which tends to suggest co-mingling as a more affordable solution.[9]
- Contamination rates vary significantly across the capital, between 0 and 17%, with an average of 7%, significantly below the national average. Reducing contamination rates can improve the economy of the separate collection system. [6] However, rejection rates averaged 2.4% of material sent for recycling either at collection, sorting or reprocessing in some borough this is up to 8-12 % [4]

#### 5. Materials, Quantities and costs

### **SUMMARY OF COLLECTION SYSTEMS IN PLACE**

Collected waste (t)	Paper	Glass	Plastic	Metal	Bio-waste	City Coverage
Door-to-door	87 486	25 249	8 910	4 400	254 019	8-26% of households +>1 500 businesses
Door to-door Co-mingled(*) (**)	252 292	99 903	44 884	25 790		73% Households +>1 500 businesses
Bring points	8 715	8 429	568	733		1 657 20.3 per 100 000 inhabitants
Civic amenities	11 360	578	2 406	12 634	56 596	35 0.4 per 100 000 inhabitants
Producer / Retailer take-back						





Total**	366 330	136 422	57 731	44 118	310 617
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<sup>\*</sup> Disaggregated based on the total amount of dry door-to-door separately collected waste in London (separately collected and co-mingled), disaggregated by material according to the average composition of dry door-to-door collection in England.

# SUMMARY OF COSTS FOR SEPARATE COLLECTION SYSTEMS IN PLACE (setup costs should be total, running costs annual)

Costs (€)		aste management panies	Consumer costs		
	Setup (€)	Running (€/year)	Funding type	Amount (€)	
Door-to-door separate	Not available	€175 - 234 /t, €21- 33 /household (in 2009)	Municipal tax	free	
Door-to-door co-mingled	Not available	€91 -156 /t; €16 - 35 /household (in 2009)	Municipal tax	free	
Bring points	Not available	Not available	Municipal tax	free	
Civic amenities	Not available	Not available	Municipal tax / fee	Free / €10-70 [4]	
Producer / Retailer take-back	Not available	Not available	Not available	€0.3	
Total	Not available	€208 million [4]	Municipal tax	€242** / per household	

<sup>\*\*</sup> Share of municipal tax spent on all municipal waste management activities.

## 6. Recycling and losses

# **RECYCLING OF THE COLLECTED WASTE**

Recycled (t)	Paper	Glass	Plastic	Metal	Bio-waste	Total
Generated	Not available	Not available	Not available	Not available	Not available	Not available
Collected	366 330	136 422	57 731	44 118	310 617	885 218
Recycled nationally	Not available	Not available	Not available	Not available	Not available	Not available
Exported for recycling	Not available	Not available	Not available	Not available	Not available	Not available
Rejected	Not available	Not available	Not available	Not available	Not available	Not available



<sup>\*\* 73%</sup> with only comingled. 99% of households (73%+26%) have either only co-mingled or co-mingled and separate collection

<sup>\*\*</sup> Includes small additional collection from street bins and voluntary collection.

# References

- [1] Greater London Authority (2014): London Datastore, Local Authority Collected Waste Management, Londonhttp://data.london.gov.uk/dataset/local-authority-collected-waste-management-london/resource/4d88d88c-31a7-468b-95e9-49fba78ad20e
- [2] Waste Data Flow Org. (2014): WasteDataFlow. Q10-Q17 http://81.201.130.52/home.aspx
- [3] Waste Management in London Key Challenges. Nov 2013. London Councils, www.londoncouncils.gov.uk/London%20Councils/
  Item7ExecpaperWasteResearchFINALDRAFT2.pdf
- [4] London Collection and Unitary Authority data download 2013/2014, http://laportal.wrap.org.uk/LWARBBoroughServices.aspx
- [5] London's wasted resource: The mayor's municipal waste management strategy, November 2011: Appendix 4e, https://www.london.gov.uk/sites/default/files/Appendix%204e%20Performance%20of%20Lon dons%20Municipal%20Recycling%20Collection%20Services.pdf
- [6] The Mayor's Draft Municipal Waste Management Strategy: London's Wasted Resource, Jan 2010, http://www.london.gov.uk/sites/default/files/draft-mun-waste-strategy-jan2010.pdf
- [7] Updated compositional estimates for local authority collected waste and recycling in England, 2010/11 - EV0801, http://sciencesearch.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None &Completed=0&ProjectID=18237
- [8] Personal Communication: London waste and recycling board, Beverly Simonson April 2015.
- [9] Personal communication: Greater London Authority, Doug Simpson. April 2015.

