

## 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.




Paris	France
<p><b>SUMMARY:</b> The separate collection system in Paris is based on different schemes that are shared between municipal services and private contractors. In terms of collection coverage 65 % of households with door-to-door separate collection of glass and 100 % of households with door-to-door co-mingled collection of plastic, metal and paper/cardboard. The separate collection system is effective, the glass recycling rate is almost 100% and the recycling rate of the dry recyclables is 71%. However, waste generation rates indicate that there are still large amounts of recyclables in residual waste, i.e. plastic and paper.</p> <p>Costs for separate collection are co-mingled bin 311€/t, glass collection (bring point) 186 €/t and glass collection (door-to-door) 156 €/t.</p>	
<b>1 Capital general data</b>	
City population (inhabitants)	2 274 880 [1]
City area (km <sup>2</sup> )	105.4 [2]
City density (persons/km <sup>2</sup> )	21 583 (calculated)
City climate	Oceanic
<b>2. Capital waste data</b>	
Total (municipal) waste generation (t in 2013)	1 113 438 (total collected) 882 870 (household wastes and wastes of a similar nature and composition) <sup>1</sup> [1] [4]
Total (municipal) waste generation (kg/cap)	489.4 (including bulky, road and market waste) 419.8 (household wastes and wastes of a similar nature and composition) [1 calculated]
Total separate collection (kg/cap) & (% of generation)	Total separate collection of paper, plastic, metals, composite materials and glass (excluding bulky waste): 139 620 t [4] 61.4 kg/cap & 12.5 % [1]
Percentage breakdown of total collection for separate collection by fraction	<ul style="list-style-type: none"> <li>• 48 % glass separately collected (calculated)</li> <li>• 52 % other recyclable materials (calculated):</li> </ul> Amounts out of 82.7% recyclables of co-mingled collection <sup>2</sup> : <ul style="list-style-type: none"> <li>• 47.2% paper</li> <li>• 27.8 % cardboard</li> </ul>

<sup>1</sup> This includes household and similar residual waste (803 409 t) and mixed market waste, street cleaning and street bins, as well as sorted recyclable waste that was not accepted when entering sorting centres

<sup>2</sup> amounts after deduction of rejected quantities after two controls, 17.3% separate collection errors (wrong separation)

	<ul style="list-style-type: none"> <li>• 4.5 % plastic</li> <li>• 1.4 % metal</li> <li>• 0.8 % composite materials</li> <li>• 1 % small electronic devices [1]</li> </ul>
<b>3. Description of overall separate collection systems operating in capital</b>	
<p>The Parisian municipality/Mayor is in charge of waste management for municipal waste within the 20 arrondissement. The responsibility for waste collection is equally shared between municipal services (Direction de la propreté et de l'eau) and private contractors, each being responsible for 10 arrondissements. <b>Municipal services are in charge</b> of collection of bulky waste in all Paris and the collection of market, street, packaging and <b>household waste</b> in the 2, 5, 6, 8, 9, 12, 14, 16, 17 and 20 arrondissements. <b>Private contractors are in charge</b> of <b>glass collection</b> in all Paris and the collection of market, packaging and <b>household waste</b> in the 1, 3, 4, 7, 10, 11, 13, 15, 18 and 19 arrondissements [1].</p> <p><b>Glass:</b> Glass is collected separately in one bin (white lid) once a week by private contractors, notably SITA, SEPUR and PIZZORNO (65% coverage of households), there are also 946 bring points for glass in all of the city area maintained and collected by the company DERICHEBOURG. [1]</p> <p><b>Plastic, Metal, Composite materials, Paper and cardboard:</b> These recyclable materials are collected together in one bin (yellow lid) twice a week (except very rare cases). In some areas of the 2, 3, 8 and 11 arrondissements additionally paper and cardboard is selectively collected three times a week for businesses. [1]</p> <p><b>Bio-waste:</b> Bio-waste is not separately collected in Paris however there are 187 [1] publicly available composting sites for participating residents, schools and public institutions operated by the municipality. Citizens can contact the municipality of Paris to participate in this project [3]. These "collective composting units" or on-site composting units and worm composting, are only open to inhabitant of apartment blocks they are located in or to users of the concerned schools and public institutions. There is also management of green waste from technical services (parks and public garden), a part of it is composted on-site, the other is sent for mulching or incineration (3 328 t incinerated in 2013). [4]</p> <p>In addition the separate, co-mingled collection and the bring sites the city of Paris also provides civic-amenity sites called <b>CVAE</b> (Centre de valorisation et d'apport des encombrants). They accept bulky waste, WEEE, green and garden waste, hazardous wastes as well as paper, cardboard, plastic, metal and glass. The 9 CVAE across the territory of Paris are free of charge for the inhabitants. [1]</p>	
<p><b>Annual Running Costs:</b></p> <p>Total running costs: 464.2 million €</p> <p>Costs for waste collection: 76.4 million €, Costs for civic amenity sites: 6.2 million €, Costs for bins and their maintenance: 5 million €, Costs for waste treatment (attributed to Sycotm): 118.9 million €</p> <p>Costs for separate collection of co-mingled bin: 17 516 576 €, 311€/t and 10.7€/cap</p> <p>Costs for glass collection (bring point): 1 992 432 €, 186 €/t and 0.9 €/cap</p> <p>Costs for separate glass collection in bin: 8 763 612 €, 156 €/t, 3.8 €/cap</p> <p><b>Revenues:</b></p> <p>Financial support for separate collection of the municipal service from EPR: 13 million €</p> <p>Municipal waste tax (households): 445.8 million €</p> <p>Revenues for waste collection from commerce, administration and businesses: 20.7 million €</p> <p>Support for waste prevention: 1.7 million €</p> <p>Other: 3.7 million €</p>	
<p><b>Setup costs: Not available</b></p>	
<p><b>Coverage [1]:</b></p> <ul style="list-style-type: none"> <li>• 65 % of households with door-to-door separate collection of glass</li> <li>• 100 % of households with door-to-door co-mingled collection of plastic, metal, paper and cardboard</li> <li>• 0.5 for bio-waste composting (of inhabitants)</li> </ul>	

4. Elements of the collection system	
<b>MUNICIPALITIES OR THEIR CONTRACTORS</b>	
 <b>Door-to-door collection of source separated waste (Bac à couvercle blanc)</b>	
<b>Fractions collected</b>	Glass [1]
<b>Collection frequency</b>	Weekly (additional collections for large waste producers like hotels, restaurants etc.) [1]
<b>Coverage of collection</b>	65 % of households and businesses [1]
<b>Annual collected quantities</b>	Total (households and businesses): 56 177 t Door-to-door: 23.6 kg/cap Businesses: 11.6 kg/cap [1]
<b>Setup costs</b>	Not available
<b>Running costs</b>	8 763 612 €, 156 €/t and 3.8 €/inhabitant
<b>Source of funding</b>	Municipal service tax (Taxe d'enlèvement des ordures ménagères - TEOM), Fees paid by commercial activities [1]
<b>Cost to consumer (annual)</b>	Costs included in municipal waste tax (TEOM) cannot be deduced
 <b>Door-to-door collection of co-mingled recyclables (Bac à couvercle jaune)</b>	
<b>Fractions collected together in one bin</b>	Plastic, metal, composite materials, paper and cardboard 5% of the collections are only for paper from large business producers and administrations (separate bin only for paper) [1]
<b>Collection frequency</b>	Twice a week, in some areas of the 2, 3, 8 and 11 arrondissement with a lot of businesses three times a week [1]
<b>Coverage of collection</b>	100 % Households 100 % Businesses [1]
<b>Annual collected quantities [1]</b>	<b>Plastic:</b> 3 272 t & 1.4 kg/cap [1] <b>Composite materials:</b> 582 t & 0.3 kg/cap [1] <b>Paper:</b> 34 329 t & 15.1 kg/cap [1] <b>Cardboard:</b> 20 219 t & 8.9 kg/cap [1] <b>Metal:</b> 1 018 t & 0.45 kg/cap [1]
<b>Setup costs</b>	<b>Not available</b>
<b>Running costs</b>	17 516 576 €, 311 €/t and 7.7 €/inhabitant
<b>Source of funding</b>	Municipal waste tax (Taxe d'enlèvement des ordures ménagères - TEOM), Fees paid by commercial activities, EPR schemes (Eco-Emballages), income from the sale of recyclables [1]
<b>Cost to consumer (annual)</b>	Costs included in municipal waste tax (TEOM) The TEOM is the only cost to the consumers for waste management in Paris, it is not possible to allocate it to a specific collection method. There is no automatic (and mandatory) coverage of the total costs by the TEOM, also it is not linked to the service provided (it is based on the property value and paid with the property tax). It is therefore not possible to allocate a specific cost for each waste fraction and each service [4]

 <b>Bring Collection Points (Colonne à verre, sites de compostage)</b>	
<b>Fractions collected</b>	Glass and bio-waste
<b>Number of collection points</b>	<b>Glass:</b> 946 (total) 41.6 (per 100 000 inhabitants) [1] <b>Bio-waste (composting):</b> 187 (total) 8.2 (per 100 000 inhabitants) [1]
<b>Collected quantities</b>	Glass: 10 712 t & 29.4 kg/cap [1] Bio-waste: 280 t & 28 kg/cap (only 10 000 persons participating in system) [1] Garden waste: 15 000 t [4]
<b>Setup costs</b>	<b>Not available</b>
<b>Running costs</b>	<b>Glass:</b> 1 992 432 €, 186 €/t, 220.3 €/collection point, 0.9 €/inhabitant [1]
<b>Source of funding</b>	Waste budget [1]
<b>Cost to consumer</b>	Free of charge (partly paid by the TEOM) [4]
 <b>Bring-in Civic Amenity sites (CVAE – Centre de valorisation et d'apport des encombrants)</b>	
<b>Fractions collected</b>	CVAE accept recyclable materials: Paper, Glass, Plastic, Metal [1]
<b>Number of sites</b>	9 (total) (7 CVAE and 2 smaller cleanliness centres (centres de propreté)) 0.4 (per 100 000 inhabitants) 3 additional CVAE are planned[1]
<b>Collected quantities</b>	Total collected amounts at CVAE (including bulky waste and other waste streams): 86 963 t & 38.2 t/cap [1] This includes both CVAE and kerbside collection on demand + some illegal dumping [4] Bio-waste: Green garden waste 3 328 t & 1.5 kg/cap [1]
<b>Setup costs</b>	Not available
<b>Running costs</b>	6.2 million €, 68.7 €/t, 688 888.9 €/bring point, 2.7 €/inhabitant
<b>Source of funding</b>	Waste budget
<b>Cost to consumer</b>	None, CVAE are free of charge to consumers [1] (partly paid by the TEOM) [4]
<b>PRODUCERS OR THEIR AGENTS</b>	
 <b>Deposit Return Systems</b>	
EPR schemes in place in France are Eco emballages (PMC), adelphe (packaging materials), ecofolio (paper), OCAD3E (WEEE); RECYLUM (used lamps and neon lights); COREPILE (batteries) + Eco Mobilier (Furniture) [4]	

5. Materials, Quantities and costs							
SUMMARY OF COLLECTION SYSTEMS IN PLACE							
Collected waste (t)	Paper	Glass	Plastic	Metal	Bio-waste	Composite materials	City Coverage
Door-to-door		56 177					65 % of total
Co-mingled	54 548		3 854	1 018		582	100 % of total
Bring points		10 712			280		946 + 41.6 per 100 000 inhabitants
Civic amenities	86 963 (with other wastes)				3 328		9 + 0.4 per 100 000 inhabitants
Producer / Retailer take-back							
<b>Total</b>	<b>54 548</b>	<b>66 889</b>	<b>3 854</b>	<b>1 018</b>	<b>3 608</b>	<b>582</b>	
SUMMARY OF COSTS FOR SEPARATE COLLECTION SYSTEMS IN PLACE (setup costs should be total, running costs annual)							
Costs (€)	Authorities / waste management companies		Consumer costs				
	Setup (€)	Running (€/year)	Funding type	Amount (€)			
Door-to-door	Not available	8 763 612	Municipal service tax (TEOM), Fees paid by commercial activities	Total income from TEOM: 445.8 million € Costs per inhabitant: 196 €/year (including residual waste)			
Co-mingled	Not available	17 516 576	Municipal waste tax (TEOM), Fees paid by commercial activities, EPR schemes, income from the sale of recyclables				
Bring points	Not available	1 992 432	Waste budget	Free of costs			
Civic amenities	Not available	6 200 000	Waste budget	Free of costs			
Producer / Retailer take-back	Not available						
<b>Total</b>	Not available	34 472 620					

6. Recycling and losses							
RECYCLING OF THE COLLECTED WASTE <sup>3</sup>							
Recycled (t) [1]	Glass	Paper & cardboard	Plastic	Metal	Composite materials	Bio-waste	Total
<b>Generated</b>	113 681	307 932	158 657	40 747	30 600	154 782	806 119
<b>Collected</b>	66 889	54 548	3 272	1 018	582	280	126 589
<b>Recycled nationally</b>	113 199	119 479 (71%)					232 678
<b>Exported for recycling</b>							
<b>Rejected</b>	0 <sup>4</sup> (%)	48 719 (29%)					

<sup>3</sup> Data of **waste generation** per waste stream have been calculated on the basis of residual waste sorting analysis, if data was not directly available. Based on the composition of residual waste (% of each waste fraction) and its total weight amounts per waste fraction can be calculated.

<sup>4</sup> All glass reported in the annual report respected the technical requirements set by the recycling industry so the rejection rate is below the technical requirement, i.e. less than 20 kg of contamination per tonne of glass and less than 4.9 kg of infusible waste per t and thus rejection rate is technically 0 %. [4]

## References

- [1] Mairie de Paris (2013) Rapport annuel sur le prix et la qualité du service public de gestion des déchets à Paris, [http://www.paris.fr/pratique/environnement/ordures-menageres-tri/rapport-2012-sur-l-elimination-des-dechets/rub\\_5430\\_stand\\_14567\\_port\\_11670](http://www.paris.fr/pratique/environnement/ordures-menageres-tri/rapport-2012-sur-l-elimination-des-dechets/rub_5430_stand_14567_port_11670), accessed March 2015.
- [2] Marie de Paris (2010) Géographie de la capitale – Dimensions, [http://www.paris.fr/politiques/paris-d-hier-a-aujourd-hui/geographie-de-la-capitale/dimensions/rub\\_4946\\_stand\\_3079\\_port\\_10579](http://www.paris.fr/politiques/paris-d-hier-a-aujourd-hui/geographie-de-la-capitale/dimensions/rub_4946_stand_3079_port_10579), accessed March 2015.
- [3] Marie de Paris (2014) Déchets alimentaires- un composteur ?, [http://www.paris.fr/pratique/ordures-menageres-tri/recyclage/dechets-alimentaires-un-composteur/rub\\_5434\\_stand\\_88487\\_port\\_11682](http://www.paris.fr/pratique/ordures-menageres-tri/recyclage/dechets-alimentaires-un-composteur/rub_5434_stand_88487_port_11682), accessed March 2015.
- [4] ORDIF (Observatoire régional des déchets) (2015) Information provided by Email from Mr Bel, November 2015.