

## 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.

Brussels	Belgium
<p><b>SUMMARY:</b> Brussels has full coverage of collection for businesses and households with differentiated separate collection schemes, including the co-mingled collection of plastic, metal and composite material in one bin. The separate collection system is effective because low amounts of paper, glass and metal in residual waste. However, there is potential to increase the collection rate of plastic and bio-waste.</p>	
<b>1 Capital general data</b>	
City population (inhabitants)	1 154 635 (2013) [1]
City area (km <sup>2</sup> )	161.38 [4]
City density (persons/km <sup>2</sup> )	7 155 [1]
City climate	oceanic
<b>2. Capital waste data</b>	
Total (municipal) waste generation (t in 2013)	469 559 [2]
Total (municipal) waste generation (kg/cap)	406.7 kg/cap
Total separate collection (kg/cap) & (% of generation)	Total separate collected: 118 321 t [2] 102.5 kg/cap & 25.1 % of generation
Percentage breakdown of total collection for separate collection by fraction	<ul style="list-style-type: none"> <li>• 35 % paper and cardboard</li> <li>• 22 % glass</li> <li>• 11 % PMC (Plastic, metal, composite material)</li> <li>• 12 % green/garden waste</li> <li>• &gt;1 % kitchen waste</li> <li>• 20 % other [4]</li> </ul>
<b>3. Description of overall separate collection systems operating in capital</b>	
<p>In the capital Brussels two organisations are responsible for the organisation and management of the separate collection system. <b>Bruxelles Environnement</b> is in charge of the general administration and planning and the municipal organisation <b>Bruxelles – Propreté</b> on the other hand is responsible for the waste management including collection, sorting and treatment. The city of Brussels is one out of 19 municipalities that together form the Brussels region that relies on the same separate collection and waste management system.</p> <p>Brussels has no Pay-as-you-throw (PAYT) system in place, the source of funding of the waste management for the activities of Bruxelles Propreté is a <b>regional tax</b> that is of 89 €/household (not only for waste but also for fire brigade etc.) and the <b>regional budget</b> that is attributed to Brussels region. [1]</p> <p><b>Door-to-door collection schemes</b> exist for residual, selectively collected waste (PMC, glass, paper, green garden waste) and bulky waste (annually collection free of charge). <b>Bring points</b> are established for glass and textiles. Hazardous waste is disposed</p>	

of at mobile drop sites. **Civic amenity sites** allow for the drop off bulky waste, construction and demolition waste, wood, WEEE and hazardous waste.

Brussels has a **dual system of separate door-to-door collection** the main system is the kerbside collection of waste bags (around 70-80%) and the second one is the collection of containers/bins in apartment buildings (around 20-30%) [1]. Both systems cover the same waste fractions and have the same colours. Inhabitants can buy the waste bags in stores their price only covers manufacturing price and does not include costs of management, also container/bins are free of charge.

**Paper and cardboard:** There are two systems of separate door-to-door collection for paper and cardboard, the first one is the collection in the yellow bag and the second one is the collection in yellow containers/bins for apartment buildings.

**Glass:** Since 2009 it is not allowed anymore to dispose glass together with the residual waste (white bag and black bin), infringements are punished with fines of 62.50€ [7]. Glass is collected at bring points and for apartment buildings there are containers (240l and 660l). The bring points are free of costs and the costs for the container depends on the frequency of collection [9].

**Plastic and metal and composite materials (PMC):** PMC is co-mingled collected door-to-door by two systems, the first one is the collection in the blue bag and the second one is the collection in blue containers/bins for apartment buildings.

**Bio-waste:** In Brussels green garden waste is collected separately door-to-door once a week in a green bag once a week. Additionally a pilot project started in 2013 for the collection of kitchen waste in brown bags/containers/bins that was successful. Therefore in 2016 the separate door-to-door collection of kitchen waste will be introduced for the whole Brussels region in an orange bag [18].

#### Annual Running Costs:

**Total running costs 191.22 Million €** (in 2013) [3]

165.6 €/cap

407.2 €/t municipal waste

**Setup costs: Not available**

#### Coverage:

- 100 % of households with door-to-door separate collection of paper and 96% for green garden waste
- 100 % of households with door-to-door co-mingled collection of PMC [1]




### 4. Elements of the collection system




#### MUNICIPALITIES OR THEIR CONTRACTORS



Door-to-door collection of source separated waste (yellow bag for paper and green bag for green/garden waste)

<b>Fractions collected</b>	<b>Paper, garden/green waste</b> for every household [7] and paper, bio-waste and glass container for apartment buildings [9]
<b>Collection frequency</b>	<b>Paper:</b> bi-weekly (every 14 days) [7]
	<b>Garden/Green waste:</b> weekly [7]
	<b>Kitchen waste:</b> weekly (pilot project) [10]
<b>Coverage of collection</b>	<b>Glass (container):</b> depending on needs
	<b>Paper:</b> 539 702 households (in 2013) [8] 16 826 businesses [3] 100 % of households [3] For % of businesses see additional findings
	<b>Green garden waste:</b> 518 114 households (in 2013) [8] 96 % of households [1]
	<b>Kitchen waste:</b> 1 467 households (pilot project) 4 businesses [10] (in 2014)
<b>Annual collected quantities</b>	<b>Glass (container):</b> 20-30% of households; 107 940 households (for 20%) [1]
	<b>Paper:</b> 40 886 t & 35.4 kg/cap [2] <b>Green garden waste:</b> 14 056 t & 12.2 kg/cap

	<b>Kitchen waste:</b> 189 t & 22.9 kg/cap (only per persons involved in pilot project) [10]
	<b>Glass (container):</b> 6 102 t & 5.3 kg/cap (businesses and households) [3]
<b>Setup costs</b>	<b>Not available</b>
<b>Running costs</b>	<b>Not available</b>
<b>Source of funding</b>	A part of the regional tax and regional budget for the Brussels region and costs for additional collections [4] [1]
<b>Cost to consumer (annual)</b>	<b>Paper:</b> free of charge for biweekly collection [9] <b>Bio-waste:</b> free of charge for participating households and businesses [10] <b>Green/garden waste:</b> free of charge for weekly collection <b>Glass (apartment buildings):</b> 240l container 4.11€ per collection; 660l 7.68€ per collection [9]
 <b>Door-to-door collection of co-mingled recyclables (blue bag for plastic, metal and composite material)</b>	
<b>Fractions collected together in one bin</b>	Plastic, Metal, Composite material (PMC)
<b>Collection frequency</b>	Bi-weekly [7]
<b>Coverage of collection</b>	100 % Households 100 % Businesses
<b>Annual collected quantities</b>	PMC: 12 927 t & 11.2 kg/cap [3]
<b>Setup costs</b>	<b>Not available</b>
<b>Running costs</b>	<b>Not available</b>
<b>Source of funding</b>	A part of the regional tax and regional budget for the Brussels region and costs for additional collections [4] [1]
<b>Cost to consumer (annual)</b>	Free of charge for bi-weekly collection [9]
 <b>Bring Collection Points (bulles à verre)</b>	
<b>Fractions collected</b>	Glass
<b>Number of collection points</b>	560 glass bring points(total) [11] [3] 48.5 (per 100 000 inhabitants)
<b>Collected quantities</b>	Glass: 20 327 t & 17.5 kg/cap [3]
<b>Setup costs</b>	<b>Not available</b>
<b>Running costs</b>	<b>Not available</b>
<b>Source of funding</b>	A part of the regional tax and regional budget for the Brussels region [4] [1]
<b>Cost to consumer</b>	Glass bring points are free of costs
 <b>Bring-in Civic Amenity sites (parcs à conteneurs)</b>	
<b>Fractions collected</b>	Green garden waste, metals, paper/cardboard, batteries and accumulators, hard plastics (plant pots),PMC, tires, glass and flat glass, bulky waste, construction and demolition waste, wood, WEEE and hazardous waste [12]
<b>Number of sites</b>	2 (total) [6] (see also additional findings below)

	0.17 (per 100 000 inhabitants)
<b>Collected quantities</b>	<b>Paper:</b> 1 379 t & 1.2 kg/cap [2]
	<b>Flat glass:</b> 120 t & 0.1 kg/cap [2]
	<b>Hard plastics:</b> 157 t & 0.1 kg/cap [2]
	<b>Metal:</b> 917 t & 0.8 kg/cap [2]
	<b>Green garden waste:</b> 1 267 t & 1.1 kg/cap [2]
<b>Setup costs</b>	<b>Not available</b>
<b>Running costs</b>	<b>Not available</b>
<b>Source of funding</b>	A part of the regional tax and regional budget for the Brussels region and costs for the deposit of more than 3m <sup>3</sup> as well as the deposit of construction waste [1]
<b>Cost to consumer</b>	Free of charge up to 3 m <sup>3</sup> per day, above 3 m <sup>3</sup> 121 € per day. Disposal of construction waste always has to be paid, bags of up to 20 kg are 3.03 €/per bag [12]
<b>PRODUCERS OR THEIR AGENTS</b>	
 <b>BEBAT (batteries and accumulators) and RECYBAT (discarded car batteries or accumulators) (EPR scheme)</b>	
<b>Products covered</b>	Batteries and accumulators
<b>Quantity covered by system (in t)</b>	<b>Not available</b>
<b>Quantity collected by system (in t)</b>	21 (batteries and accumulators from BEBAT and RECYBAT) [3]
<b>Funding mechanism</b>	0.075 € per battery or accumulator put on the market by the producer/importer paid to BEBAT and an annually fee of 60€ [13] for RECYBAT the annual fee is 100 € and 0.06 per battery or accumulator [14]
<b>Consumer cost</b>	Free of charge to consumer but fee is redistributed to the sales price
 <b>ValorFrit (used edible/cooking oils)</b>	
<b>Products covered</b>	Used edible/cooking oils and greases
<b>Quantity covered by system (in t)</b>	<b>Not available</b>
<b>Quantity collected by system (in t)</b>	213 [15]
<b>Funding mechanism</b>	Collected oils and greases are to 98% transformed into bio-diesel which is sold, this makes the system free of charge to producers [16]
<b>Consumer cost</b>	Free of costs [16]
 <b>Recupel (WEEE)</b>	
<b>Products covered</b>	WEEE
<b>Quantity covered by system (in t)</b>	<b>115 585 (2013 total in Belgium)</b> 18 718 cooling and freezing appliances 24 878 big white goods 23 479 television screens and monitors

	1 362 gas discharge lamps 43 510 other appliances (data from 2012) [17]
<b>Quantity collected by system (in t)</b>	Amount collected at civic amenities in Brussels: 2 398 [3]
<b>Funding mechanism</b>	Fee paid by consumer when purchasing new EEE [17]
<b>Consumer cost</b>	Fixed fee included in sales price of new EEE that depends on type of electronic good [17]

**ADDITIONAL FINDINGS:**

- Technically all businesses are obliged to sign a contract with an operator for the separate collection of paper waste, so coverage should be 100%. In reality this is far from being the case [1]
- The whole Brussels region has seven Civic amenity sites two are accessible for all inhabitants of the region and 5 are regional sites operated by the according municipalities and are only available for inhabitants of the municipality. In regards of coverage in total around 350.000 inhabitants (from these municipalities) have access to 3 collection sites which represents a number of 0.26 (per 100 000 inhabitants) [1] [6]

**5. Materials, Quantities and costs****SUMMARY OF COLLECTION SYSTEMS IN PLACE**

Collected waste (t)	Paper	Glass	Plastic	Metal	Bio and garden waste	City Coverage
<b>Door-to-door</b>	40 886	6 102			14 245	539 702 households; 100 % of total (paper) 518 114 households; 96 % for green garden waste 107 940 households; 20 % for glass
<b>Co-mingled</b>				12 927		539 702 Households; 100 % of total
<b>Bring points</b>		20 327				560 + 48.5 per 100 000 inhabitants
<b>Civic amenities</b>	1 379	120	157	917	1 267	2 + 0.2 per 100 000 inhabitants
<b>Producer / Retailer take-back</b>						
<b>Total</b>	<b>42 265</b>	<b>26 549</b>		<b>14 001</b>	<b>15 512</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 (€)
<b>Door-to-door</b>	Not available	Not available	Part of regional tax and budget	Not available
<b>Co-mingled</b>	Not available	Not available	Part of regional tax and budget	Not available
<b>Bring points</b>	Not available	Not available	Part of regional tax and budget	Not available
<b>Civic amenities</b>	Not available	Not available	Part of regional tax and budget	Not available
<b>Producer / Retailer take-back</b>	Not available	Not available		Not available
<b>Total</b>	Not available	Not available		Not available

6. Recycling and losses						
RECYCLING OF THE COLLECTED WASTE (households and businesses, all collection schemes) <sup>1</sup>						
Recycled (t)	Paper	Glass	Plastic	Metal	Bio-waste	Total
<b>Generated</b>	122 454.6	31 570	38 852.7		184 317.9	377 195.2
<b>Collected (total amounts in 2013) [4]</b>	105 360	26 429	12 927		16 810	161 526
<b>Recycled nationally</b>	Not available	Not available	Not available	Not available	Not available	Not available
<b>Exported for recycling</b>	Not available	Not available	Not available	Not available	Not available	Not available
<b>Rejected</b>	Not available	Not available	Not available	Not available	Not available	Not available
<b>ADDITIONAL FINDINGS</b>						
The percentages and t of recyclable materials in mixed municipal waste were as follows in 2013 (total mixed waste collected 315 398 t):						
<ul style="list-style-type: none"> <li>• Bio-waste: 53.11% and 167 507.9 t</li> <li>• Paper: 3.07 % Cardboard: 2.35 % and 17 094.6 t</li> <li>• Plastic: 6.84 % and 21 573.2 t</li> <li>• Glass: 1.63 % and 5 141 t</li> <li>• Metal: 1.38 % and 4 352.5 t</li> </ul>						
Total generated amount of waste fractions was calculated based on the amounts in the mixed waste and separately collected amounts [1].						

<sup>1</sup> 1 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. Data of **waste collection** per waste stream is not necessarily the same than the amounts that are summarised under section five. There are two main reasons for this a) the data in the table in section 6 stems from a different information source than the one in the table in section 5 **and** b) the separate collection methods that are investigated in this factsheet do not necessarily cover all amounts of waste streams that were collected separately in the capital, e.g. occasional collections.

## References

- [1] Information provided by Mr Sobrie via telephone and Email, Bruxelles Environnement, 16 April 2015 and 04 May 2015.
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