

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.

Athens	Greece
<p>SUMMARY: Athens separate collection system uses the co-mingled door to door collection scheme for all dry recyclables and the bring point scheme for paper and glass. In addition there is a bio-waste pilot project in place. Waste collection is financed by the municipal service tax but the cost to consumers is not available. The effectiveness of the separate collection system cannot be evaluated due to missing data.</p>	
1 Capital general data	
City population (inhabitants)	664 046
City area (km ²)	38.96
City density (persons/km ²)	17 004
City climate (mediterranean, continental, oceanic, nordic; relevant for bio-waste collection)	Mediterranean
2. Capital waste data	
Total (municipal) waste generation (t in indicated year)	310 439.34 (2012) [1]
Total (municipal) waste generation (kg/cap)	467.5 [1]
Total separate collection (kg/cap) & (% of generation)	77.76 (2012) [1] excluding bio-waste collection
Percentage breakdown of total collection for separate collection by fraction	<ul style="list-style-type: none"> • 1.11 % paper and cardboard • 9.15% glass • 0.01% plastic • 1.28% metal • 88.87% other (This percentage includes co-mingled collection of packaging (the majority), and other separate collected waste streams, e.g. batteries, WEEE, tyres, etc.) % of bio-waste is not available
3. Description of overall separate collection systems operating in capital	
<p>The recycling programme applied by Municipality of Athens recycling includes:</p> <ul style="list-style-type: none"> • Cooperation with approved waste management schemes • Organization by the municipality, waste management schemes for materials still not covered by the approved waste management schemes • Recycling corners in the Department of Cleaning – Recycling and Mechanical Equipment Maintenance <p>The municipality of Athens, in cooperation with the Hellenic Recovery Recycling Corporation (He.R.R.Co), has placed blue bins for the co-mingled collection of packaging recyclables (paper, plastic, metal and glass packaging) throughout the city. [1]</p>	

<p>Paper and cardboard: Apart from the co-mingled collection of paper packaging, Municipality of Athens itself has placed yellow bell type bins throughout the city for the separate collection of paper and cardboard packaging. In addition, bins for separate collection of printed paper are placed in municipal premises and schools. [1]</p> <p>Glass: Apart from the co-mingled collection of glass packaging, Municipality of Athens itself has placed, close to areas with restaurants and cafes, bell type bins for the separate collection of glass bottles and containers. In addition, Municipality with collaboration of He.R.R.Co has also placed bins for the separate collection of glass. [1]</p> <p>Plastic: Apart from the co-mingled collection of plastic packaging, plastic is separated collected after telephone request by households and/or businesses. [1] In addition, the municipality also provides damaged waste plastic bins to recyclables management company in order to be recycled. [2]</p> <p>Metal: Apart from the co-mingled collection of metal packaging, the municipality has assigned to a recyclables management company the recycling of damaged waste metal bins, containers and other metal objects. [1]</p> <p>Bio-waste: Under the implementation of EU LIFE+ project, a pilot programme of separate collection of bio-waste (food waste from households and restaurants) was selected to takes place in two areas of Athens (Gazi and Kypriadou). This pilot programme is still in operation [3]</p>	
Annual Running Costs: Not available	
Setup costs: Not available	
Coverage: Not available	
4. Elements of the collection system	
MUNICIPALITIES OR THEIR CONTRACTORS	
 Door-to-door collection of source separated waste	
Fractions collected	Bio-waste (pilot programme)
Collection frequency	Bio-waste: bi-weekly [2]
Coverage of collection	Bio-waste: (households, restaurants and cafes in Gazi and Kypriadou area) [3]
Annual collected quantities	Bio-waste: 214.18 t [2]
Setup costs	Not available
Running costs	Not available
Source of funding	Not available
Cost to consumer (annual)	Not available
 Door-to-door collection of co-mingled recyclables	
Fractions collected together in one bin	Paper, glass, plastic, metal [1]
Collection frequency	Daily [4]
Coverage of collection	Not available
Annual collected quantities	Total: 45 493.96 t (2012) [1] Using the Attica Region (which includes Athens and other municipalities as well) composition as proxy [6]:

	Paper: 35,166.8 t Glass: 1,410.3 Metals:1,501.3 Plastic: 6,369.2 Others: 1,046.4
Setup costs	Not available
Running costs	Not available
Source of funding	Municipal service tax [1]
Cost to consumer (annual)	Free of costs to consumer
 Bring Collection Points	
Fractions collected	Paper, glass
Number of collection points	Glass: 677 bell type bins [2]; 102 (per 100 000 inhabitants) Paper: 115 bell type bins; 17.4 (per 100 000 inhabitants) [1]
Collected quantities	Paper: 569.84 t [1]
	Glass: 4 703.30t [1]
Setup costs	Not available
Running costs	Not available
Source of funding	Municipal service tax [1]
Cost to consumer	Free
PRODUCERS OR THEIR AGENTS	
 Deposit Return Systems for WEEE, lamps and lights, waste oils, used tyres batteries and accumulators	
Separate Collection Systems for WEEE (ΑΝΑΚΥΚΛΩΣΗ ΣΥΣΚΕΥΩΝ Α.Ε. / APPLIANCES RECYCLING S.A.)	
Products covered	WEEE
Quantity covered by system (in t)	Not available
Quantity collected by system (in t)	123 t (2012) [1]
Funding mechanism	Not available
Consumer cost	Not available
Separate Collection Systems for lamps and lightings (ΦΩΤΟΚΥΚΛΩΣΗ Α.Ε./FOTOCYCLOSIS S.A.)	
Products covered	Lightings, lamps
Quantity covered by system (in t)	Not available
Quantity collected by system (in t)	6.7 t (2012) from bins placed in Municipality premises [1]
Funding mechanism	Not available

Consumer cost	Not available
Separate Collection Systems for waste oils (ENDIALE A.E./ENDIALE S.A.)	
Products covered	Waste oils
Quantity covered by system (in t)	Not available
Quantity collected by system (in t)	0.6 t (2012) collected by the maintenance of mechanical equipment of the Municipality[1]
Funding mechanism	Not available
Consumer cost	Not available
Separate Collection Systems for used tyres (ECO-ELASTIKA S.A.)	
Products covered	Used tyres
Quantity covered by system (in t)	Not available
Quantity collected by system (in t)	35 t (2012) collected by the maintenance of mechanical equipment of the Municipality[1]
Funding mechanism	Not available
Consumer cost	Not available
Separate Collection Systems for vehicles accumulators (Re-Battery S.A.)	
Products covered	Vehicles accumulators
Quantity covered by system (in t)	Not available
Quantity collected by system (in t)	4,56 t (2012) collected by the maintenance of mechanical equipment of the Municipality[1]
Funding mechanism	Not available
Consumer cost	Not available
Separate Collection Systems for batteries (ΑΦΗΣ Α.Ε./AFIS S.A.)	
Products covered	Batteries
Quantity covered by system (in t)	Not available
Quantity collected by system (in t)	40 t (2012) from bins placed in Municipality premises [1]
Funding mechanism	Not available
Consumer cost	Not available
BARRIERS TO IMPLEMENT SEPARATE COLLECTION	
<p>The decline in consumption due to the economic crisis and the increase in the durability of consumer goods are important factors affecting the collection of recyclables. On the contrary, the rise in the annual amounts collected is due to the increase of the collection points and / or better organization of the collection system. The reduction of the annual quantity collected is largely due to the illegal withdrawal of recyclables from the bins for the separate collection of packaging materials and their illegal sale. [1]</p>	

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					214.18 [2]	Households, restaurants and cafes in Gazi and Kypriadou area)
Co-mingled	35 166.8	1 410.3	6,369.2	1,501.3		Not available
Bring points	569.84[1]	4 703.30[1]				Glass 677 + 102 (per 100 000 inhabitants) Paper: 115 + 17.4 (per 100 000 inhabitants)
Civic amenities						
Producer / Retailer take-back	Not available	Not available	Not available	Not available		
Total	35,736.64	6,113.6	6,369.2	1,501.3	214.18	
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	Not available	Not available	Not available	Not available	
Co-mingled	Not available	Not available	Municipal service tax	Not available	Not available	
Bring points	Not available	Not available	Municipal service tax	Not available	Not available	
Civic amenities	Not available					
Producer / Retailer take-back						
Total						
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	35,736.64	6,113.6	6,369.2	1,501.3	214.18	49,934.92
Recycled nationally	Not available					
Exported for recycling						
Rejected						

References

- [1] Waste Management in the Municipality of Athens - Review 2012/ Διαχείριση Αποβλήτων στο Δήμο Αθηναίων – Απολογισμός 2012
http://www.cityofathens.gr/sites/default/files/20130528%20%CE%91%CF%80%CE%BF%CE%B%CE%BF%CE%B3%CE%B9%CF%83%CE%BC%CF%8C%CF%82%20%CE%B4%CE%B9%CE%B1%CF%87%CE%B5%CE%AF%CF%81%CE%B9%CF%83%CE%B7%CF%82%20%CE%B1%CF%80%CE%BF%CE%B2%CE%BB%CE%AE%CF%84%CF%89%CE%BD%202012_0.pdf
- [2] Data by the capital factsheet filled in by the Department of Cleaning – Recycling and Mechanical Equipment Maintenance of Municipality of Athens....
- [3] ATHENS-BIOWASTE project (LIFE10 ENV/GR/000605)
<http://www.biowaste.gr/site/pilotathens/pilot-program-athens/>
- [4] Recycling Programme of Municipality of Athens / Πρόγραμμα Ανακύκλωσης Δήμου Αθηναίων
<https://www.cityofathens.gr/node/473>
- [5] Revision of National Waste Management Plan / Αναθεώρηση Εθνικού Σχεδιασμού Διαχείρισης Αποβλήτων <http://www.ypeka.gr/Default.aspx?tabid=238&language=el-GR>
- [6] Ελληνικός Οργανισμός Ανακύκλωσης <http://www.eoan.gr/el/content/8/suskeuasies-apovlita-suskeuasion>