

Civic amenity sites

In a nutshell

• Summary overview

As a key complement to an effective door-to-door (kerbside) collection of the most common waste fractions, it is best practice to run civic amenity sites (also called container parks, collection centres, clean points, ecopoints, recovery sites, waste parks, etc.) where citizens and small businesses can drop off as many waste fractions as possible for separate collection.

Elements of best practice for civic amenity sites include the following:

- presence of at least a civic amenity site in the local authority or regular periodical presence of a mobile site.
- separate collection of as many fractions as possible and the possibility to drop off any household waste.
- training of the staff of the civic amenity sites to maximise recycling, recovery and appropriate safe disposal.
- watertight paved area and collection of run-off water for appropriate treatment.
- proximity of the sites to citizens (e.g. accessible without a car by a large share of the population), also thanks to mobile/temporary collection sites.
- long opening hours to enhance convenience for citizens. These may change across seasons (especially for green cuttings).

Waste management area

<u>Cross-cutting</u>	<u>MSW - strategy</u>	<u>MSW - prevention</u>	<u>MSW - collection</u>	<u>MSW - EPR</u>	<u>MSW - treatment</u>	<u>CDW</u>	<u>HCW</u>
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Applicability

The concept of collection centres is broadly applicable. The ultimate recyclability of the waste streams collected also depends on the availability of downstream markets.

Specific environmental performance indicators

In addition to the common environmental performance indicators (presented in the best practice on Common Environmental Performance indicators), the most appropriate indicators to assess the successful implementation of this best practice are:

- number of civic amenity sites per 100 000 residents;
- number of different fractions collected at the civic amenity sites;
- availability of product/material exchange areas aimed at fostering reuse in civic amenity sites (y/n);
- easy accessibility of civic amenity sites, e.g. without a car (y/n).

Benchmarks of excellence

- For municipalities with at least 1 000 residents, there is at least one civic amenity site in their territory.
- At the civic amenity sites, at least 20 different waste fractions are collected.
- In civic amenity sites, product/material exchange areas aimed at fostering reuse are available.

Description

Efficient recycling and recovery (with recycling and recovery rates of at least 80 %) requires an adequate infrastructure to perform door-to-door (kerbside) collection of the paper/cardboard, biowaste, packaging and possibly glass fractions. In addition, at its best, every bigger municipality (> 1 000 inhabitants) has at least one easily reachable civic amenity site (also called 'container park' or 'collection centre') where citizens can drop off as many waste fractions as possible which can be recycled or recovered at reasonable costs. Civic amenity sites can also be complemented by mobile/temporary collection facilities at planned locations and times of the week, in order to increase the usability of such facilities by residents.

The county, city or region identifies the numbers and locations of civic amenity sites and provides a standard layout for them. The latter can be applied by municipalities. In addition, staff are trained to operate the centres in such a way that all fractions are well separated and deposited in the correct container, drum, box, etc. Concerning the location, it is important that it is easy for citizens to access, well connected to the road network and does not disturb the neighbourhood. The area must be watertight and paved in order to avoid soil pollution and the run-off water shall be adequately treated or discharged to a public sewer.

The opening hours should allow sufficient opportunities for citizens to drop off different waste fractions; an example is shown in Figure 1. In spring, summer and autumn, the opening hours are longer compared to winter when less material is delivered, especially green cuttings.

Recycling centre	
Opening hours	
1 April – 31 October	
Tuesday	15.00 - 18.00
Friday	15.00 - 18.00
Saturday	10.00 - 15.00
In November	
Tuesday	13.00 - 16.00
Friday	10.00 - 16.00
Saturday	10.00 - 15.00
1 December - 31 March	
Tuesday	closed
Friday	10.00 - 14.00
Saturday	10.00 - 14.00
Gemeinde Hailbach	

Figure 1. Opening hours of a collection centre of a German village with about 8 300 inhabitants (the opening hours are adapted to daylight and season, specifically there are extended opening hours in November to increase the reception of green cuttings)

The different fractions which can be collected in a civic amenity site are described under Operational data.

Environmental benefits

The recycling of the manifold mentioned waste fractions corresponds with savings in raw materials and energy. The separate collection and environmentally friendly disposal of hazardous substances reduces the contamination of waste streams and the environment. The separate collection of the different fractions usually enables higher recycling rates and thus lower losses of raw materials.

Side effects

The transport of the different waste fractions to the collection centre by the citizens is a relevant cross-media effect.

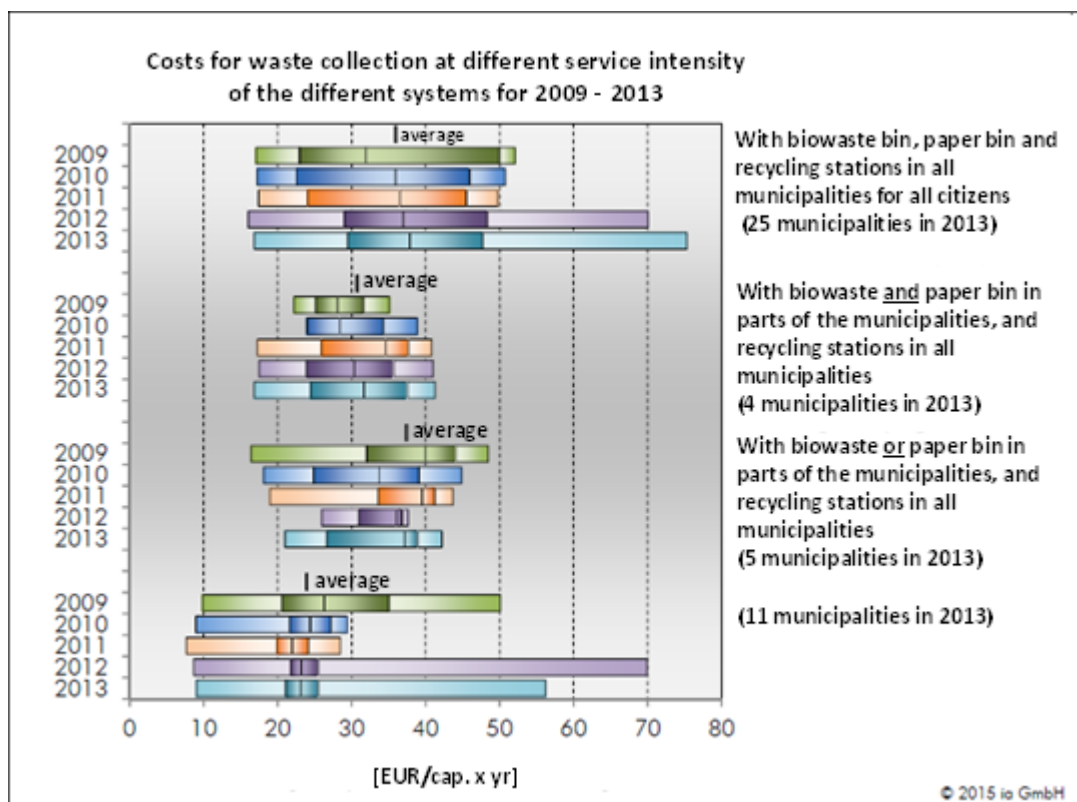
Applicability

In principal, the concept of collection centres is applicable to all municipalities, cities or counties. The introduction of collection centres in cities can be limited due to space constraints. The recyclability also depends on available markets, for instance waste vegetable fat can only be recycled if biodiesel is produced.

The application of this technique is strongly supported by other instruments such as the pay-as-you-throw system and cost benchmarking.

Economics

The costs for an efficient waste collection system and the operation of collection centres in all municipalities of a county vary considerably. According to Figure 1, in 2013, the range for counties or cities collecting biowaste, paper/cardboard and residual waste in specific bins as well as operating collection centres in all municipalities (upper part of the figure) is between EUR 17 and EUR 76 per capita per year. This indicates that an efficient system can be operated at a reasonable cost and that there can be significant room for cost optimisation. The cost figures already include the revenues gained from some of the recycled fractions.

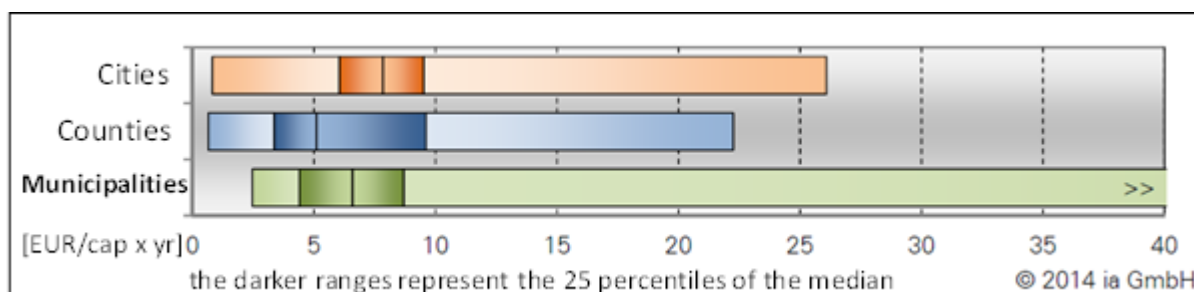


Note: see BEMP on cost benchmarking, see explanations in the footnote^[1]

Figure 1. Costs for waste collection at different service intensities of the different systems for 2009–2013, based on ia GmbH (2015a)

The counties or cities to which the citizens pay their waste fee often cover the operating costs of the collection centres that are operated by municipalities (villages, small cities or city neighbourhoods).

Considering the collection centres only, the cost range is also large (Figure 2). In most of the counties, cities and municipalities (about 100 in total), the costs are between less than EUR 4 and EUR 10 per capita per year. For the cities evaluated, the average cost figure is EUR 7.8 per capita per year, for counties EUR 5.1 per capita per year and for individual municipalities EUR 6.6 per capita per year.



Note: see footnote to the previous figure

Figure 2. Costs for the operation of collection centres (ia GmbH / UMSICHT, 2015b, p 32)

The composition of the cost for collection centres is illustrated in Figure 3. Almost two thirds of the costs are those for personnel. The other shares of costs are much lower. Against this background, due to long depreciation times, it can be concluded that investment costs, e.g. for roofing, will not significantly influence the total costs.

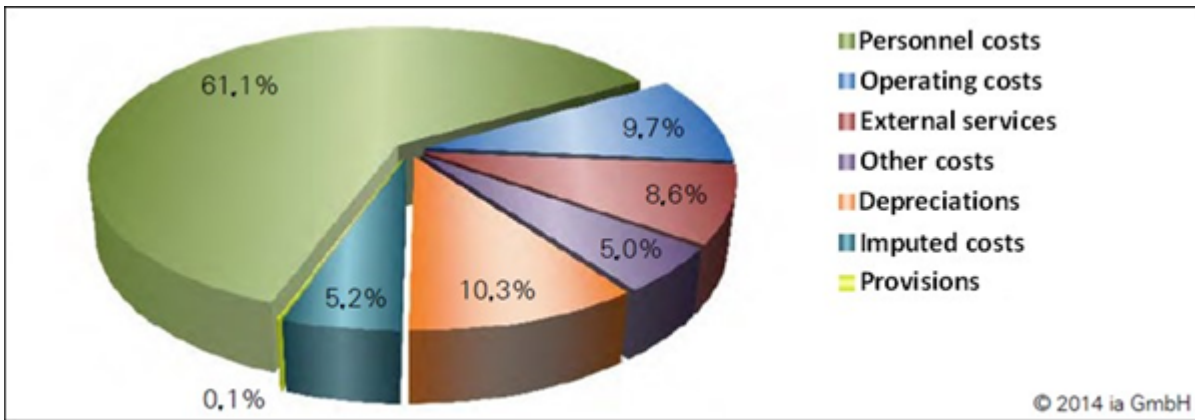


Figure 3. Composition of the costs for operating collection centres (ia GmbH / UMSICHT, 2015b, p 32)

It was already mentioned in relation to Figure 3 that investment costs for collection centres depend on their standard. They can be grouped into the categories simple, medium, high and very high. The definition of these categories is as follows:

- Category I: investment costs up to EUR 50 000 – simple enclosure, no operating building, no two-level solution;
- Category II: investment costs between EUR 50 000 and EUR 150 000 – container or roofing as “operating building”, flat asphalted area;
- Category III: investment costs between EUR 150 000 and EUR 500 000 – solid, closed operating building, enclosed area, partly levelled area with ramps;
- Category IV: investment costs over EUR 500 000 – solid, closed operating building, storehouse, possibly reception of hazardous waste, levelled area with ramps.

Considering about 100 collection centres in Germany, about half of them fall into Category II, and about one fifth each into Categories I and III and only a few into Category IV (see Figure 4).

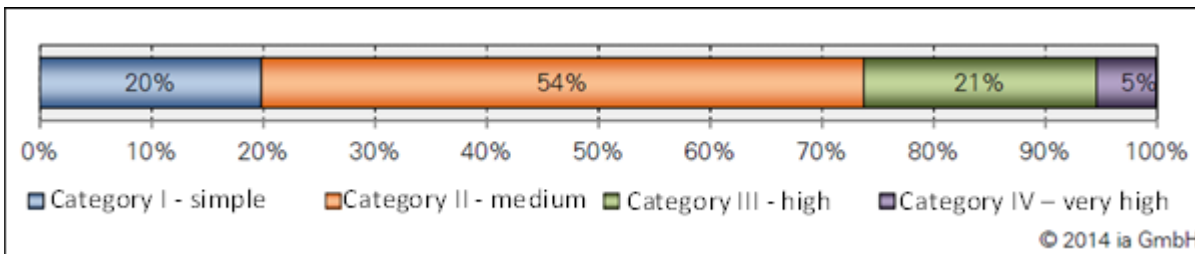
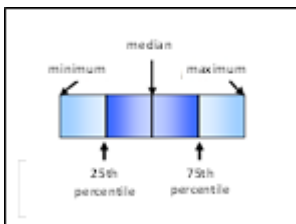


Figure 4. Different categories of collection centres (ia GmbH / UMSICHT, 2015b, p. 26)

[1] The values are presented as median, minimum, maximum and 25th/75th percentiles as indicated in the figure below.



Driving forces for implementation

The rising awareness of the circular economy concept is a major driving force for establishing and operating collection centres. This awareness has often been driven by the limited availability of landfills, and, in some Member States, by the legal ban on landfilling of untreated waste. For instance in Germany, Austria and the Netherlands, the awareness was already starting to significantly increase more than 30 years ago.

Reference organisations

Germany: Counties of Aschaffenburg, Rems-Murr, Schweinfurt, Enzkreis. Cities of Munich, Hamburg, Berlin, Neumünster.

Odense (Denmark) established a network of eight civic amenity sites, i.e. approximately 24 000 inhabitants per site. The average distance to the nearest site is around 2 km. All sites have approximately 30 containers for different waste types (R4R, 2014a).

The Île-de-France region implements a network of mobile civic amenity sites. The service consists of the temporary installation of collection facilities in a public space (from 1.00 pm till 6 pm in summer time and till 5.00 pm in winter time). The location of the mobile civic amenity sites is fixed and the frequency of opening is decided with the local authorities and ranges from once to seven times a month (R4R, 2014b).

Trasimeno Servizi Ambientali (TSA) introduced, thanks to the LIFE EMaRES project, a mobile collection point ('Ricimobile') which, at planned times and locations in the territory, collects WEEE, batteries and spent cooking oil (Di Maria, 2015).

Literature

Di Maria (2015): Personal communication on the main outcomes of the LIFE EMaRES project. 23/10/2015.

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ia GmbH – Wissensmanagement und Ingenieurleistungen, Fraunhofer-Institut für Umwelt-, Sicherheits- und Energietechnik UMSICHT (Eds.) (2015b): Wertstoffhof 2020 – Neuorientierung von Wertstoffhöfen (Collection centre 2020 – reorientation of collection centres). April 2015 (only in German). Available at <http://www.ask-eu.de> Last access September 2017.

R4R (2014a). Regions for Recycling – Good practice: Odense. Available at: http://www.regions4recycling.eu/upload/public/Good-Practices/GP_Odense_CAS.pdf last access July 2017.

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