

SPECIFIC COLLECTION SYSTEM ADAPTED TO THE REAL NEEDS



Background (REF: 1, 2 & 3)



The selection of a well-performing waste and recyclables collection system is the basis for proper recycling. Waste and recyclables collection systems commonly applied in Europe can be classified by:

- **Type of recipient:** container (surface/ underground), bin, bag (plastic), etc.
- **Distance to collection point:** Pick-up (door-to-door, kerbside) and drop-off system (bring banks and recycling yards).
- **Type of fractions collected:** selective and separate collection (only one material fraction), mixed (all fractions together) or commingled (all recyclables together). Five fractions, including paper & board, are obligatory to be collected separately according to the EU framework. However, while EU legislation does allow not only separate, but also commingled collection, research shows that separate collection of paper & board is essential for achieving good results in paper & board recycling.
- **Frequency:** daily, weekly, fortnightly, monthly, bi-monthly, etc.

Each collection system is a combination of the elements above, and should be decided according to the characteristics and preferences of each territory.

ACTION

Select the best collection system for each area of the municipality by considering its specific characteristics and needs: climate, type of urbanisation (buildings, density of population), demographics, infrastructure, etc.

Examples of best practice implemented

Household waste collection in Barcelona (Spain) (REF: 4)



Barcelona has an extensive municipal service for the daily collection of household waste according to the characteristics of each urban district.

- **Blue containers for paper and cardboard:** All citizens have recycling collection containers located less than 100 meters from their home.
- **Manual bag collection service:** Door-to-door waste collection of different types of waste and recyclables service in specific zones including the old part of the city, where is especially difficult to place containers or access with vehicles.
- **Recycling yards:** Used to get rid of municipal waste fractions which can't be thrown into street containers.

Waste management plan 2018 in Copenhagen (Denmark) (REF: 6)

In the Waste Management Plan 2018, the efforts of the City for a more resource efficient waste management system fall under four topics each with a specific target and a number of measures and concrete initiatives. Each topic furthermore contains a *flagship project*.

Under the **Topic 2: "Better separation among citizens and business"**, by 2018 all citizens in the City of Copenhagen must have access to separation of the most ordinary types of waste near their home, and all institutions of the City will source-separate their waste. Those measures directly related with paper and board collection are:



SEE MORE:

[Resource and Waste Management Plan 2018 in Copenhagen City](#)

MEASURES	
1. Better separation options in block of flats. Better marks and signs, review and optimisation of waste schemes, higher recycling rates through trials with citizens	2. More options for separation in single family houses. Better service in waste collection voluntary cardboard container
3. Integration of innovative waste solutions in the urban space. More separation options in inner city, multifunctional waste solutions in the public space, clear common guidelines for waste solutions	4. More separation in the business community Better separation in municipal institutions

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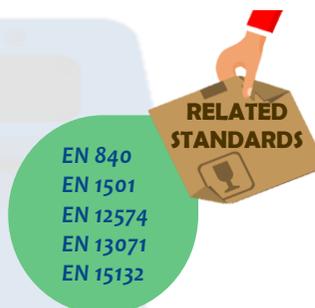


Keep in mind that...

- ⚠ **Characteristics of the territory and its socio-demographic characteristics define the type of collection scheme.**
- ⚠ **All stakeholders should be engaged in the process.**
- ⚠ **Some businesses/retailers/offices could have service contracts with traders of PfR or container service companies and do not participate at the municipal collection system.**

How to start? (REF: 7)

- ✓ **Define the baseline:** Collecting reliable data and other information on the existing waste and recyclables situation is a critical first step. The aim of gathering this background information is to provide a realistic and quantitative basis for the development of the plan, based on actual data and prioritized requirements and needs.
- ✓ **Identify the roles & responsibilities of key stakeholders.**
- ✓ **Identify the strong & weak points of the current Solid Waste Management (SWM) system.** Problems may be characterized as either: Internal to the SWM such as lack of equipment or planning capacity; Both internal & external like accelerated waste generation, lack of co-ordination etc.; and External problems such as uncontrolled urbanization, population explosions etc. will generally have to be accepted and adapted.
- ✓ **Prepare the appropriate SWM action plans:** It is the core of the planning procedures as it defines the actions to be implemented and which will establish the new SWM system.
- ✓ **Provide guidelines** on how to pass from the planning phase to the implementation phase.
- ✓ **Control of technological measures:** An outline of waste and recyclables ensures identification of areas in which technological measures should be taken to eliminate or minimize certain types of waste.



- ✓ **Outline of governance requirements:** SWM plans make way for statement of financial, institutional and social requirements. On this basis, the need for future actions, such as investments in SWM plans, public awareness campaigns, training courses for the relevant authorities and etc., may be determined.
- ✓ **Monitoring & review** constitute an essential and integral part of the planning process, ensuring both that the plan remains relevant to its goals and objectives over time. The simplest and most common monitoring tools are visual observations, general feed-back from the work-force and customer complaints. Nevertheless, it is requested a more detailed and formal analysis such as definitions of KPIs.

Potential benefits (REF: 7)

			
It could result in a lower cost of overall waste and recyclables management	●		●
Less environmental pollution	●	●	●
Conservation of raw materials		●	
Conservation of resources, since appropriate planning does not allow inappropriate investments	●		●
Better coordination between urban services	●	●	●
People is more satisfied with the service provided			●
Better cost management and higher cost recovery	●		●



References:

1. ACR+ (2009) – Municipal Waste in Europe – Towards a European Recycling Society, Chapter 7 “Organising collections”
2. IMPACTPAPEREC (2017): Deliverable 3.2
3. ZERO WASTE (2009): Low cost ZERO WASTE municipality
4. AJUNTAMENT DE BARCELONA (2016): Ecology, Urban Planning and Mobility
5. CITISCOPE (2016): How Ljubljana turned itself into Europe's ‘green capital’.
6. CITY OF COPENHAGEN: Resource and Waste Management Plan 2018
7. ISWA: Solid Waste. Guidelines for successful planning