



GOOD PRACTICE ODENSE:

Hazardous Waste Collection

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1. GENERAL INFORMATION ON THE GOOD PRACTICE (GP)

1.1 General information

Region	Odense
Country	Denmark
Short name of the good practice	Different ways of collecting hazardous waste from households
Geographical level of implementation (country, region, municipality...)	Municipality
Target group	All citizens in the municipality
Date of implementation/duration	25 years
Waste stream (and subcategory)	Hazardous household waste (spray cans, mineral oils, acids, pesticides, paints, dissolvents,
Legal framework	National Waste Act and municipal bye law (regulation)
Main local instruments involved	
Scale (pilot/partially roll out /roll out)	Roll out
Initiator/coordinator	Odense Waste Management Company

1.2 Context

Hazardous waste is the most important waste fraction to get hold of, because small amounts in the wrong places can cause great damage to human beings or to the environment. Therefore it has been the top priority to make sure that this type of waste is not disposed of in nature or in the sewer, but is collected systematically to be destroyed at secure specialized treatment plants.

It must be easy for the citizens to get rid of their hazardous waste. In order to secure this, not just one, but four collection schemes have been established.

1.3 Short description

There are four ways to deliver hazardous household waste in Odense:

- collection on demand
- collection at blocks of flats
- delivery at two manned reception points only for hazardous waste
- delivery at certain weekends in the ordinary civic amenity sites

The hazardous waste is always delivered to trained staff, because correct sorting of the hazardous waste is extremely important and cannot be left to non-experts. In all four schemes the hazardous waste is brought to the collection points in 40 l red plastic boxes.

1.4 Objective

The objective of the collection of hazardous household waste is to offer easy ways for the citizens to get rid of their hazardous waste by the collection system which suits them best. The aim is to collect all hazardous waste through the authorized channels, so that none of this waste ends up polluting the nature around us.

1.5 Method used to identify the good practice

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1.6 General characteristics of the region

Demography	
Population	193 500
Number of households	93 500
Area (km ²)	305.6
Population density (number of inhabitants/km ²)	633
General waste data (Not necessarily related to the GP but to give some background information. Data about the GP should be included under 3.1)	
Year of the following waste data	2011
Sum of all waste streams excl. residual & bulky waste (kg/inhabitant/year) (Use indicator 1 or 2 from the R4R Online Tool)	256.72
Residual waste (including sorting residues) (kg/inhabitant/year) (Use indicator 8 or 9 from the R4R Online Tool)	259.07

Total waste (add up the previous two)	515.79
Sum of all waste streams excl. residual & bulky waste to DREC (kg/inhabitant/year) (Use indicator 3 of the R4R Online Tool)	256.72

1.7 External factors

2. IMPLEMENTATION

2.1 Preparation phase

2.2 Technical implementation

The following equipment is necessary:

- one or more reception points for the hazardous waste (remember good ventilation, no spill to the sewer system, tight containers, etc.)
- specially designed collection trucks for hazardous waste
- containers for the hazardous waste (barrels and minicontainers in the trucks and at the reception points and, as a service, a 40 l red plastic box for each household)

The following staff is necessary:

- trained staff in all parts of the collection system of hazardous waste (knowledge of hazardous waste types, correct sorting and packing, knowledge of ADR*) rules, etc.)

Besides this, remember to tell about the collection scheme(s) of hazardous waste to the citizens in every way you know.

*) ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

2.3 Communicative implementation

The existence and the use of the collection schemes for hazardous waste is informed constantly to all citizens:

Media: Homepage, annual waste handbook

Visits: Kindergartens and school classes (as part of visits to civic amenity sites)

2.4 Organisations involved

Operation: Is laid in the hands of OWMC (The Recycling Dept.)

Information: is laid in the hands of OWMC (The Communication Dept.)

Legal framework: The Municipality has adopted a bye law (regulation) under the National Waste Act, where rights and obligations are established.

2.5 Key success factors

Success = Infrastructure (the plastic boxes, the special collection trucks, the collection points) + information on how to use the system + motivation (awareness raising campaigns)

2.6 Resources

The collection of hazardous waste is financed by a part of the general household waste fee paid by all households in the municipality. The cost per inhabitant is approx. 3.3 Euro, which is rather costly, but can be explained by the extensive security measures taken in the handling of this waste type. In Odense approx. 300 tons is collected per year.

3. RESULTS

3.1 Monitoring of the progress of the GP

The amounts of hazardous waste has been stable for many years in Odense – a little above or below 300 tons per year. The largest single waste fraction is paints and varnishes, which account for 66 to 75 per cent of the total hazardous waste. The rest is a mix of acids, pesticides, spray cans, and various other chemicals.

3.2 Other results

Every year the OWMC makes a general customer satisfaction survey on all the waste services, including the collection of hazardous waste. In general, the citizens are very satisfied with the system and have few complaints.

4. LESSONS LEARNED

4.1 Negative effects

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4.2 Challenges

It is not enough just to have and run the collection schemes for hazardous waste. Our experience is that constant and continuous information is important, for various reasons:

1. to inform about basic things (addresses, opening hours, etc.)
2. to inform about changes (new waste types, access control, new station, etc.)
3. to keep the awareness up by choosing an annual hazardous waste theme in the annual waste handbook (batteries, light bulbs, small electronic equipment, etc.)

When small enterprises (craftsmen, workmen, etc.) were allowed at the civic amenity sites, they were also allowed to deliver hazardous industrial waste. This new user group has imposed some challenges to the collection system. The hazardous waste from enterprises often comes in larger quantities at a time, the variety of different chemical substances is much greater from enterprises, and to some extent the containers for the hazardous waste are in a poor state (the label has fallen off, the lid or the sides are rusty or otherwise damaged, etc.). Besides, enterprises have to pay 0.75 euro per kilogram hazardous waste they bring in. National Danish law has put a limit of 200 kg hazardous waste per year per enterprise, and this requires some bureaucracy to administer.

For many years, focus has been on servicing the citizens living in one-family houses. In recent years, however, more attention has been paid to offer collective collection solutions to people living in apartments.

5. PICTURES AND OTHER DOCUMENTATION



Red plastic box put at the kerbside for collection later on the same day



The newest collection truck for hazardous waste. The side is a photo of what is inside

6. FURTHER INFORMATION

Organisation	Odense Waste Management Company
Address	Snapindvej 21
Contact person	Mr. Claus Hammerich
Phone	+45 63 13 82 05
E-mail address	cs@odenserenovation.dk
Website	www.odenserenovation.dk (in Danish) www.odensewaste.com (in English)
Others	

7. OTHER REGIONS WITH SIMILAR GOOD PRACTICES

The following partners of the R4R-project have a good practice similar to the good practice described in this factsheet:

Organisation	Public Flemish Waste Agency (OVAM)
Address	Stationsstraat 110 2800 Mechelen Belgium
Region	Flanders
Country	Belgium
Contact person:	Maarten De Groof
Phone	+32 15 284 284
E-mail address	info@ovam.be
Website	www.ovam.be
Others	
Short description of the main differences.	This good practice is quite similar to the small hazardous household (SHH) waste separate collected in Flanders. In Flanders the SHH waste is mainly collected at the Civic Amenity Sites. There is no door-to-door collection of SHH in Flanders. The SHH waste collection is for free.

REGIONS FOR RECYCLING

