Survey Report 5

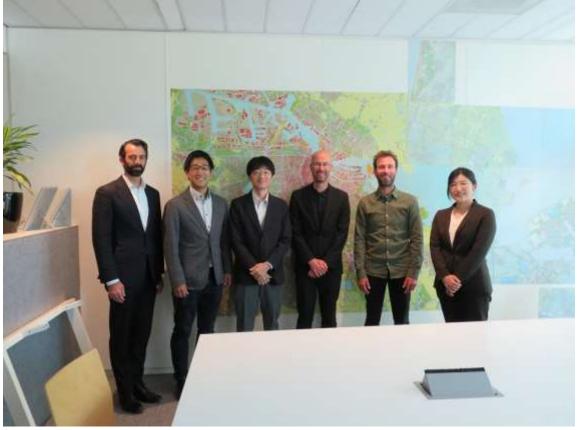
City of Amsterdam

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Contact person: Mr. Marc Nellen(Advisor Circular Economy, Port and Industy), Mr. Noam van der Hal(Projectleider Team Haven en Industrie Ruimte & Duurzaamheid), Mr. Julien Rikkoert(Head of Japan Desk), Mr. Marcel, Ms. Marlies

Visiting location: Amsterdam City Office





Collection of household waste

- The rules for separating household waste are glass, paper, and others. Recently, textiles have also been separated.
- Household waste is collected 2-3 times a week, but the day of the week and the frequency of collection are not fixed.
 Garbage from bins and household waste left on the street are collected.
- A method of measuring and collecting waste containers by measuring their volume with sensors has been introduced, but the collection driver does not rely on information from the sensor measurements and the centre-measured collection method does not work well, as the existing routes are more efficient.

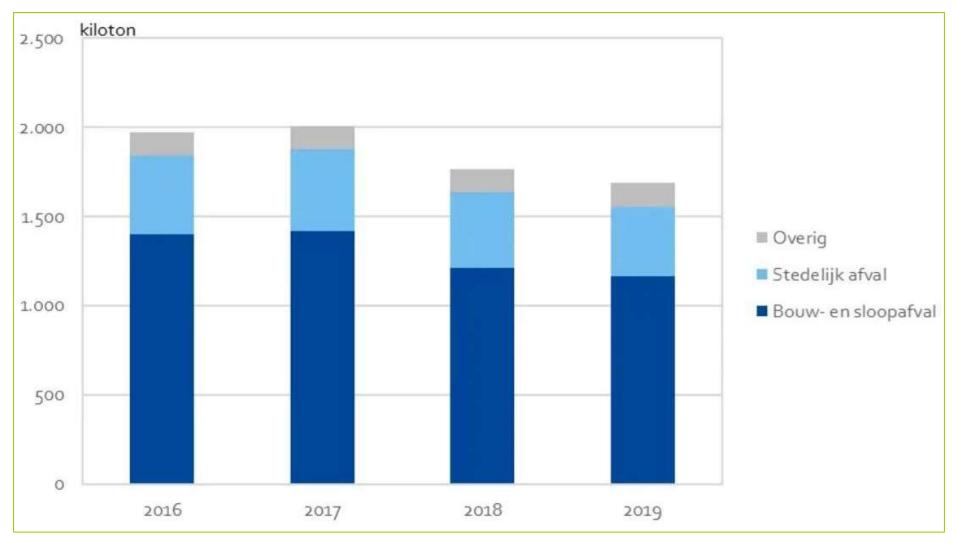
Collection of commercial waste

- For commercial waste, the waste generator basically selects a private collection and transport company and contracts with them for waste collection.
- In the "9 Streets (9 Straatjes)" area, there is a cooperative scheme for the collection of commercial waste. A pilot initiative has been launched for residents of nine streets, who can call the city and a worker will collect their waste on an ebike. It is also possible to request the collection of commercial waste under this scheme. The city center is piloting this approach because of different circumstances from other areas of the city, such as narrow roads that make it difficult for collection vehicles to enter the city.

Collection of commercial waste

 The Netherlands has the highest amount of construction waste, and the city of Amsterdam likewise has the highest amount of construction waste. Concrete and tile mixtures have been on the rise in recent years due to road construction in the city's Nieuwmarkt area.

Primary waste streams in Amsterdam



■ Construction and demolition waste ■ General waste ■ Others

Figure Amount of waste generated in Amsterdam (kilotonnes), 2016–2019 ₅

Process of waste disposal

- All types of waste (other than paper and glass) are thrown in the same container. In the AEB, the waste is separated and further treated. Recyclables will be transport to a specific recycling plant. Organic waste will carry on and get incinerated in the AEB plant.
- Waste heat from incineration is supplied to households and electricity is also generated.

Process of waste disposal

 In general, most waste will be treated in the Netherlands, but paper, glass and textile waste might be transported also abroad.



Process of construction and demolition waste disposal

- Construction and demolition waste is mainly composed of concrete, wood, plastic, paper, stone, and metal.
- Construction and demolition waste is sorted by a disposal company (Afval.nl) and 90% is reused as raw materials.

Process of construction and demolition waste disposal

- There are six recycling stations
 - in Amsterdam where large waste (in special containers) can be brought in free of charge, and individuals can also bring in waste from household renovation.
- In Amsterdam, commercial waste is rarely separated. The city calls for separating before bringing it to recycling centers, but not much is separated.



Waste disposal access card

- The system works by touching the card to the waste bin,
 which opens the lid and allows the waste to be thrown in. The volume that can be thrown in at one time is fixed.
- While the card is used in many Dutch cities, it is only used in a few locations in the city of Amsterdam. In addition, the waste card system is not working well due to faulty systems.
- In some cases, the cards are tracked under legal authority, but they rarely weigh the waste.
- The card is free to use, but in some cities, there may be charged for card use if a citizen uses the card beyond normal usage.

Waste Information

- If hazardous substances are generated above a certain amount, the generator must report the quantity and properties of the generated waste to the national system*.
 *LMA (National Monitoring Waste Database)
- Waste amounts are measured in terms of the weight of transport vehicles or containers entering incineration facilities or recycling stations. Waste statistics can be found in national databases*. This method of statistics based on the weight of the waste at the time of delivery is considered the European standard.
 - *LMA (National Data for Waste Collection)

Waste Statistics

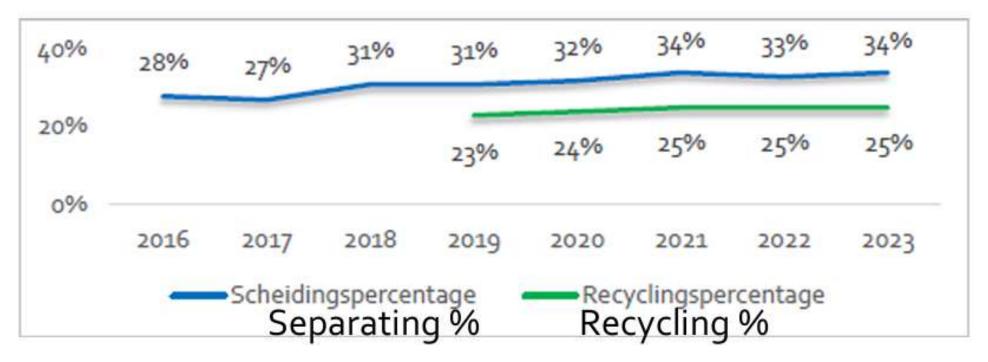


Figure: Separating and recycling rates in Amsterdam

In order to achieve 50% circular by 2030 (50% reduction in raw materials used), 78,000 tons must be recycled annually

Circular Economy Initiatives



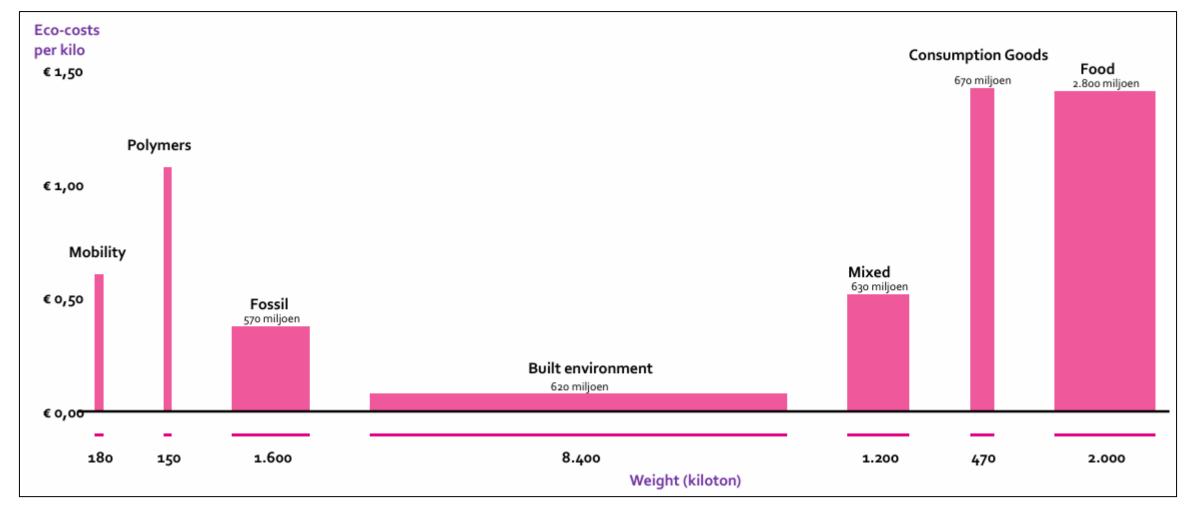
Investment allocated - €17.5 million

https://ideasforgood.jp/2024/01/26/circular-amsterdam-2023-2026/

Circular Economy Initiatives

- GFT (organic waste) also includes gardening waste. These are promoted for recycling through composting and biogas generation by fermentation.
- The amount of paper waste has decreased because citizens no longer read newspapers and printed material has decreased.
- Promoted the idea of separating and disposing of waste in the bins. The information is disseminated through social networking sites, educational programs, etc.
- The location of textile waste bins can also be found on the internet.

Circular Economy Initiatives



The environmental costs of CO_2 emissions, water pollution and other impacts are calculated and measures are to be focused on the built environment, consumption goods and food sectors.

Challenges of Circular Economy Initiatives

- Time, money, capacity: Classic excuse to postpone what is necessary and keep doing things that are comfortable, within the budget and with the available means
- Behavioral change : Changing mindsets is not enough to change behavior
- Lack of space: making room for the circular economy in the available physical space
- Systemic change: moving from successful small pilots to widespread practice
- Stop nudging: soft measures are no longer enough, more directive legislation needed to reach goals (needed on all government levels, i.e. local -national-international)