



MIASTO
STOŁECZNE
WARSZAWA



The URBANREC Project

RECAPITULATION



Warsaw – main demographic data*

POPULATION



1,695 million (only the registered inhabitants)

➔ estimated – as high as **2,5 mln**

AREA OF INTERVENTION



517,24 km²

MGO (???)



122 thousands of places of waste collection



picked up by over **400 garbage trucks**



*for the purposes of this presentation, data for the 2018 were adopted



1 CITY

vs.

1 PROVINCE

administrative subdivision
of Poland



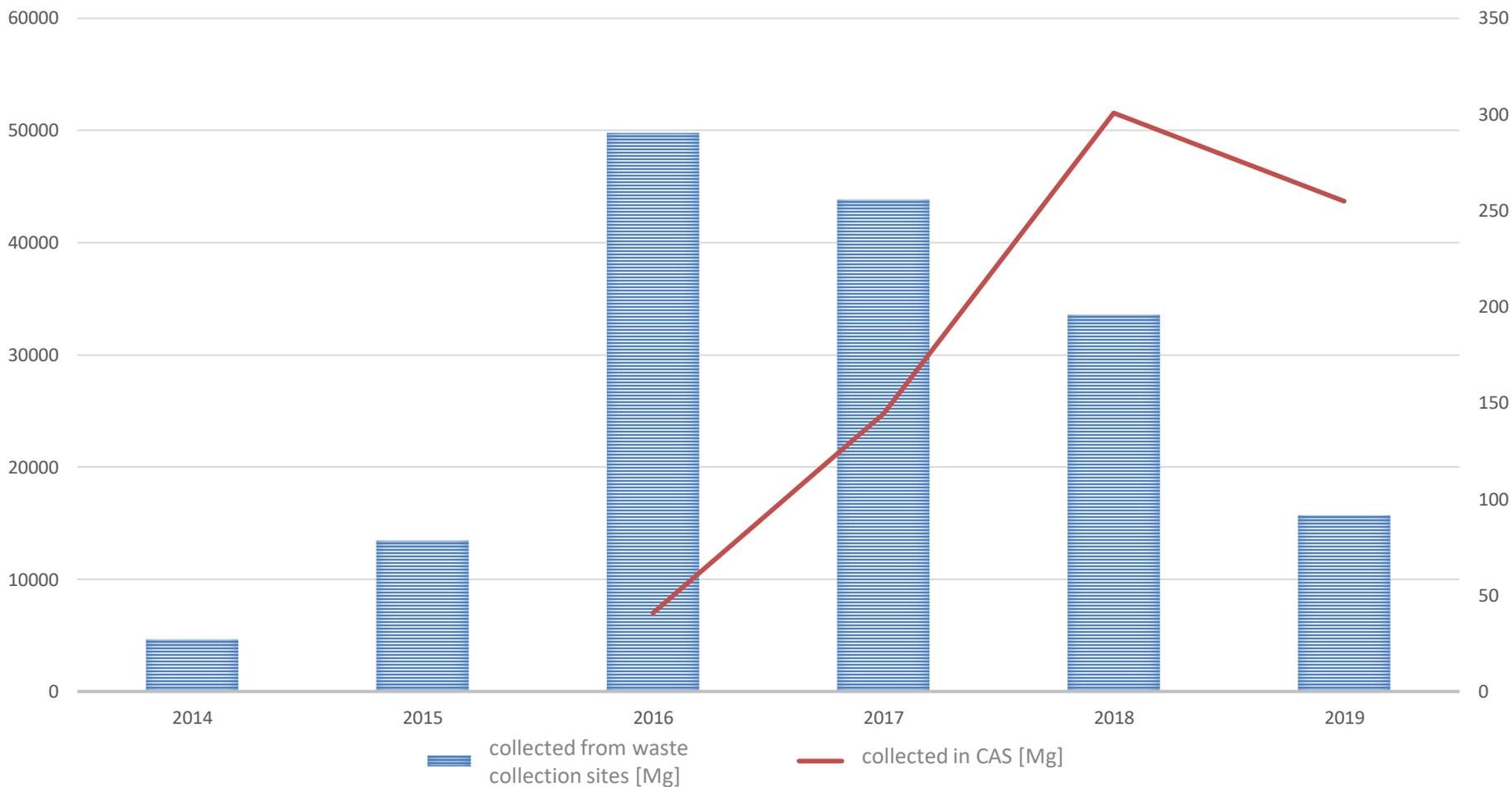
2,5 mln



łódzkie
2,4 mln



TOTAL AMOUNT OF BULKY WASTE COLLECTED IN WARSAW IN YEARS 2014-2019



Approach – what guidelines have we adopted?

The hierarchy of waste management

The Waste Management Department based its goals directly on the European waste hierarchy introduced by Polish legislation*, the most important aspect of which is to prevent the generation and reduction of the amount of waste in households.

Based on it, the **main challenges** of the office were identified:



education and
increasing awareness
of Warsaw citizens

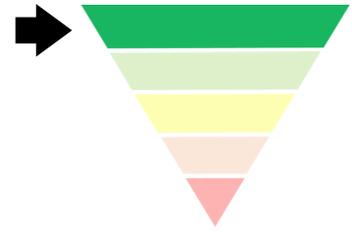


increasing the
efficiency of the
system



reducing the amount
of waste

Waste prevention



One of the most important goals in Warsaw is the prevention of the waste: including education about responsible consumption.

We focus mainly on the „**R3 Warsaw**” **approach** consistent with the European and Polish hierarchy of waste management – focusing on its first three levels, the most important from our point of view.



REDUCE

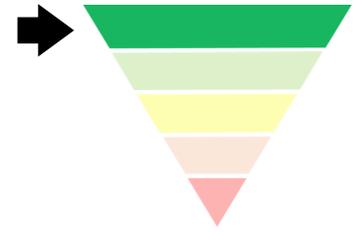


REUSE



RECYCLE

Educational activities for the residents



EKOPIKNIK: flagship educational and information event focused on the: ecology, selective collection of waste and responsible consumption: workshops on bulky items reusing, presentations, URBANREC outdoor games, etc.

Meetings with cooperatives and communities and non-governmental organizations – **discussion on planned changes, comments regarding the system**

Information activities: stands at the fairs and other events that promote **pro-ecological behaviour, consumer responsibility, increasing ecological knowledge and sensitivity, promote the hierarchy of waste management**

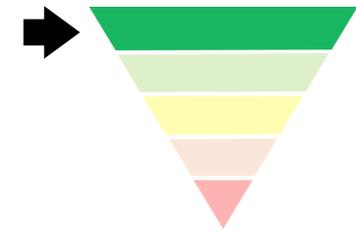
Conferences for public administration and experts

The **online and printing materials** for each district of Warsaw





The campaign promoting new rules for sorting waste



Visually attractive, eye-catching photo based campaign information was carried out in 2018 and 2019 and focused on the new principles introduced for the selective collection of urban waste:

Papier*
czyste opakowania z papieru i tektury, gazety, czasopisma i ulotki, karton, zeszyty, papier biurowy

Metale i tworzywa sztuczne*
puszki, zgniecione butelki plastikowe, zaskrzypki od butelek i szklane, plastikowe

Odpady zmieszane*
resztki mięsne i kości, mokry lub zabrudzony papier, zużyte materiały higieniczne, w tym pieluszkę jednorazową, zwierzę z kawałkami zwierzęcej skóry, potłuczone szkło i lustro

Bio*
odpady warzywne i owocowe, resztki jedzenia (bez mięsa, kości, tłuszczów zwierzęcych), skorupki jaj, łuski po kawie i herbacie, zwiędłe kwiaty i rośliny doniczkowe

Odpady wielkogabarytowe*
stare meble, materace, wyroby tapicerskie

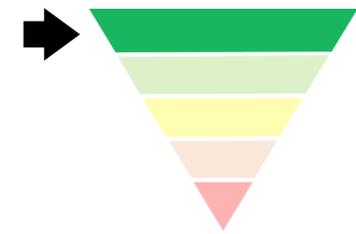
JAK SEGREGOWAĆ ODPADY KOMUNALNE OD 2019 ROKU?

- Papier**
czyste opakowania z papieru i tektury, gazety, czasopisma i ulotki, karton, zeszyty, papier biurowy
- Metale i tworzywa sztuczne**
puszki, zgniecione butelki plastikowe, zaskrzypki od butelek i szklane, plastikowe
- Szkło**
czyste butelki, szklane opakowania po komercyjnych, piwie opakowania po kebabie
- Odpady zmieszane**
resztki mięsne i kości, mokry lub zabrudzony papier, zużyte materiały higieniczne, w tym pieluszkę jednorazową, zwierzę z kawałkami zwierzęcej skóry, potłuczone szkło i lustro, tabaczkę
- Bio**
odpady warzywne i owocowe, skorupki jaj, łuski po kawie i herbacie, zwiędłe kwiaty i rośliny doniczkowe
- Odpady wielkogabarytowe**
stare meble, materace, wyroby tapicerskie
- Zielone**
szklane, szklane butelki, nadbitki, szklane

www.czysta.um.warszawa.pl
19113



Cross-sector initiatives and international projects

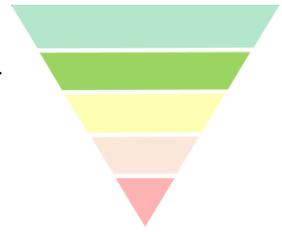


COLLECTORS – a European-funded, Horizon 2020 project which aims to identify and highlight existing good practices of waste collection and sorting. It focuses on three waste streams: paper and packaging, waste electrical and electronic equipment (WEEE), and construction and demolition waste (CDW) / <https://www.collectors2020.eu>

Koalicja 5 frakcji (5 fractions Coalition) – a nationwide initiative whose aim is to introduce on the packaging an uniform labeling system indicating waste segregation and ecological education.



Bulky items - a new look at the problem

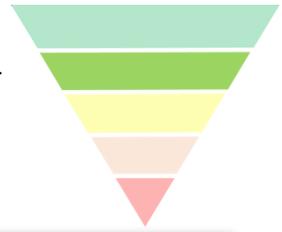


The City of Warsaw has addressed the issue of changing residents' approach to handling redundant or unwanted furniture and other items which can be classified as bulky waste.

4 aspects of measures taken in relations to bulky waste management

- **Organizational** - setting apart mattresses as a separate category of bulky waste brought to CAS.
- **Educational** - initiating measures aimed at raising the residents' awareness of the possibilities and benefits related to the responsible consumption of goods, and reducing the disposal of unwanted furniture as waste (e.g. EKOPIKNIK event).
- **Social** - engaging into a dialogue between city entities and non-government organisations on the possibility of creating a network of centres for making items ready for reuse.
- **Research & Development** - co-operating with research institutions in the field of R&D activities with the Faculty of Design at the Academy of Fine Arts in Warsaw.

URBANREC – review of the main activities ➔



In 2018, the City of Warsaw started cooperation in the field of R&D activities with the Faculty of Design at the Academy of Fine Arts in Warsaw. The objective was to develop study projects concerning the recycling of cabinet furniture for reuse on an industrial scale.

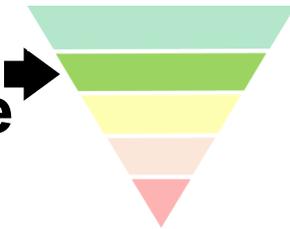
The URBANREC outdoor educational game was established during the EKOPIKNIK events in 2018 & 2019. The goals of the game was related to URBANREC project in the aspects of bulky waste management.

The regional training sessions have been organized. The representatives from public authorities, ngos, scientific circles and business discussed on the topic of „Reuse of bulky items – opportunities and challenges for municipal waste management in agglomeration cities”.

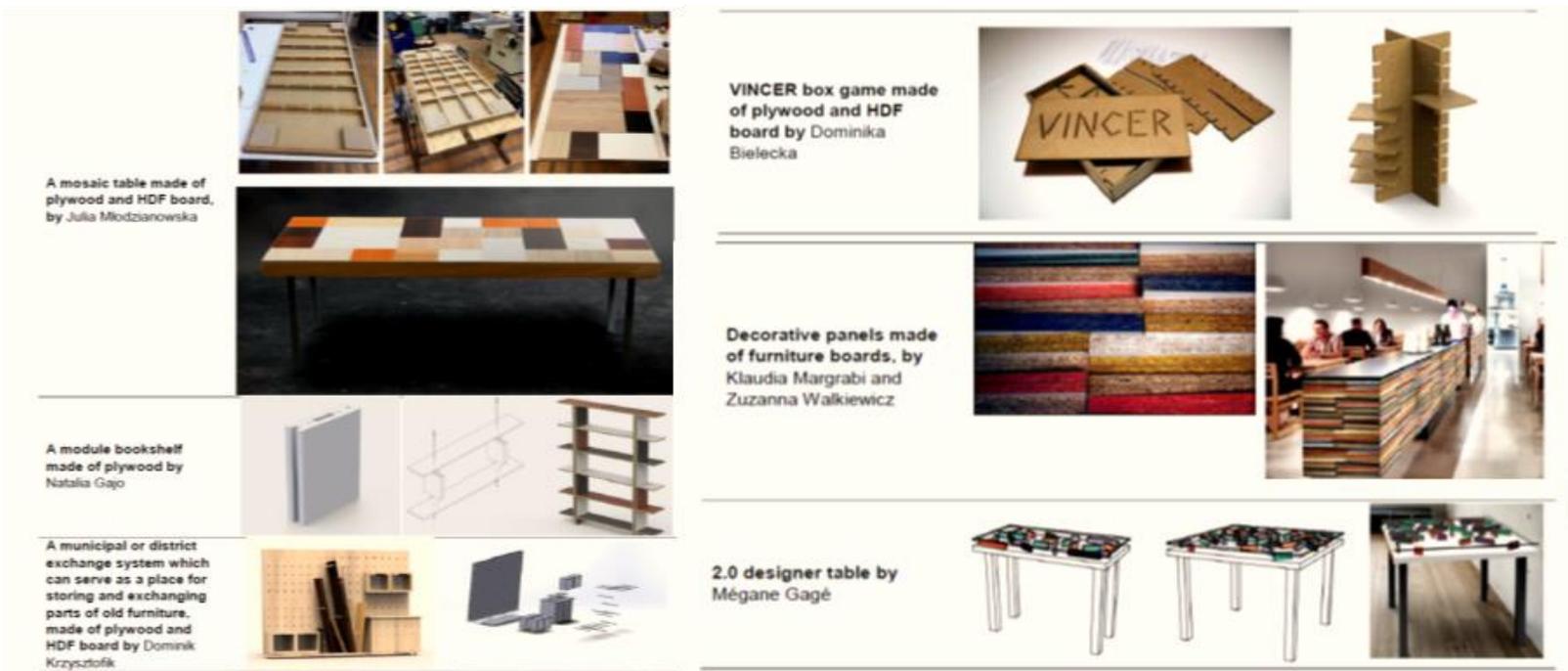
A qualitative survey for the City of Warsaw on municipal bulky waste management system was carried out. Primary goal of the survey: **to see what features CAS should have for residents to come there to dispose of their waste, including bulky items that could be prepared for reuse.**



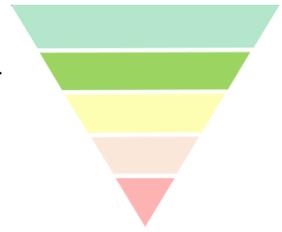
The Academy of Fine Arts students' projects: the course for new ideas for processing bulky waste and a new market offer



The designs are characterized by a practical, modern approach to the recycling of bulky waste. **These interesting solutions seem to have a chance for commercialization and marketing, if they manage to secure the necessary funding.**



Key lessons learned from the URBANREC project (qualitative survey)



1

One of the greatest challenges faced by people who want to replace their furniture is to dispose of their old furniture

2

While some people just want to buy new furniture and forget about the old, many people are open to the possibility of using renovated or second-hand furniture arranged in a new way.

3

The respondents either could relate to the disposal of bulky waste or had planned to do so in the near future, and because of that knew various ways to dispose of or reuse old furniture. Nevertheless, only a handful of people knew what a CAS was. Many people either did not hear the name at all or confused CAS with one-off collection of raw material waste or waste electronic equipment.

4

Based on their previous knowledge and experience, respondents decided that the primary advantage offered by CAS was that you could dispose of your waste free of charge so that it did not clutter the space around your house or pollute the environment. What constituted a barrier was that you had to deliver your waste to a CAS yourself.

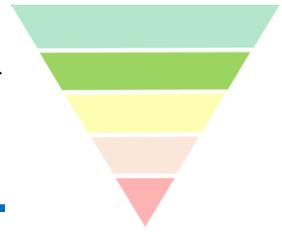
5

The idea that the furniture disposed of by residents could be reused seems to show considerable potential, and respondents spontaneously came up with ideas about how such furniture could be used (e.g. donated to a charity or handed over to some interested residents).

6

Respondents argued that it would be great if such furniture could be collected directly from residents. Alternatively, some were ready to deliver the furniture to a nearby collection point in return for something like a cinema ticket or a sapling.

Key lessons learned from the URBANREC project (qualitative survey)



CAS points as elements of efficient municipal bulky waste management

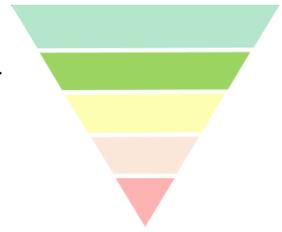
Respondents liked the idea of having their bulky waste reused.

- Some respondents suggested that the furniture delivered to CAS could be donated to charities, provided that it is in good condition.
- There was also a suggestion that residents should be allowed to take furniture from CAS. Respondents suggested that CAS could organise Open Days for residents to **see the available furniture and choose** the pieces they like (free of charge or for a small fee).

Some respondents liked the idea of repairing furniture on site or preparing it for reuse.

- There were some opinions that the best solution would be to **make it possible for residents to independently prepare and renovate furniture** (some people like to look for old furniture to redesign it, as renovation gives them a lot of satisfaction).
- There were also **concerns about how such reuse points would be funded** – some respondents assumed that the necessary money would be found in waste collection fees, in which case the existence of such points could produce an increase in the fees paid by residents.

Key lessons learned from the URBANREC project (qualitative survey)



Donating items for reuse



! Respondents were not willing to transport furniture which they could simply leave at the bin shelter or which could be collected from them free of charge.



! The solution could be promoted by some incentives – some of the respondents would be willing to bring furniture to the CAS in return for cinema tickets, a swimming pool pass, a plant or a ream of printing paper.



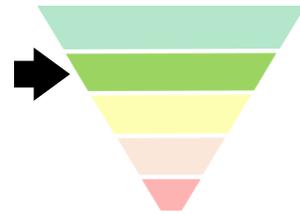
! An idea came up that furniture should be collected from residents' homes.



! Some would be ready to pay a small amount if furniture was collected from their house (around PLN 10-20).

The very existence of reuse points does not convince people to deliver furniture to CAS at their own cost. Transport is a significant barrier.

A glance at Vienna: a way to engage residents in a new model of urban metabolism



The target framework for Warsaw, similar to the one used in Vienna, would operate an effective system for the separation of bulky items to be reused from the other waste which will be directed to the municipal waste processing and recycling system.

The used bulky items collected this way would be delivered to store(s) operated by e.g. as a cooperation among a social entity, local authority and business, as is the case with 48er-Tandler in Vienna.

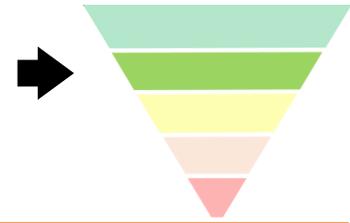
To a large degree, the Vienna 48er-Tandler project has contributed to reduced waste. Each year, the market receives about 130,000 items for reuse.

This way, approx. 300 Mg of waste a year finds new owners instead of being processed down the waste stream.

Moreover, the project has social implications, as the 48er-Tandler store is a modern and effective way to buy good-quality and functional products at reasonable prices.



The lessons learned from URBANREC project



The measures undertaken within the URBANREC project will allow the building of "R3 Warsaw" - a model for the responsible management of bulky waste, based on resident education, promotion of new solutions, and public cooperation and participation.



The City of Warsaw wants to make an effective use of the recommendations, guidelines as well as technological and non-technological solutions devised in the URBANREC project:

abilities for better organization of the municipality solid waste management system in the Capital City of Warsaw

the change of inhabitants' approach to the large size household items: less waste, more knowledge on selective collection rules and CAS role within the system, higher quality of obtained reusable materials

education & knowledge:
where to look for the proper and efficient solutions,
how to organize the cooperation between stakeholders in the context of establishing the reuse centers,
what the technology is accessible for obtaining adequately outcomes in the fields of environment, economics as well as for increasing quality of social life of the Warsaw residents

experience and good practices from the project Partners – especially from the regions of Flanders and Valencia

the development of city network of CAS with the modules of reuse points: the Capital City of Warsaw is planning to build a network of 18 CAS (for each district) and to launch the reuse centres

URBANREC project experiences – the knowledge & competencies

The measures undertaken within the URBANREC project will allow the building of R3 Warsaw – a model for the responsible management of bulky waste, based on resident education, promotion of new solutions, and public cooperation and participation.

The establishing of reuse points requires the engagement of the local government, businesses and NGOs.

The local government's role is to support that process by educating residents, developing the CAS network and creating conditions conducive to cooperation between other partners.





MIASTO
STOŁECZNE
WARSZAWA



Thank you for your attention!

Franciszek Łapecki

Director

Waste Management Department

City of Warsaw

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