Textile Collection Analysis







Company:	Leger des Heils ReShare					
Project:	ECAP					
Sector:	Textile Collection					
Employees:	85 FTE					
Service:	Collection and Reuse					
	Post Consumer Textile					

Key Facts:

Under the ECAP project, ReShare started a baseline case study to carry out an analyses of gaps in the infrastructure of containers; looking at what areas containers were missing and placing them. Volumes of textile collection at container level in the municipality of Utrecht were then monitored, with the aim of increasing collection volumes.

The analysis found that:

- There was an increase in contamination; with the percentage of household waste found in the containers rising.
- Above ground containers performed better than those underground.
- Building areas, high rise buildings and illegal containers were common factors in areas with poor performing containers.

Interventions to improve quality are ReShare's primary focus for 2019.



Overview

- The Salvation Army is a non-profit organization that works around the world to collect and distribute second-hand clothing. The clothing division in the Netherlands is called <u>Leger des Heils ReShare</u>.
- ReShare is the global market leader in textiles collection, processing c 29 million kg of donated clothing in 2018. ReShare has 10 retail shops in the Netherlands, called <u>ReShare Store.</u>
- Under the ECAP project, ReShare started a pilot to monitor volume of textile collection at container level in the municipality of Utrecht.





What we did

- In 2018 ReShare collected 817.791 kg textiles in the municipality of Utrecht (10 neighborhoods).
- ReShare's norm is to have 1 container per 3500 inhabitants. Utrecht has 347.465 inhabitants (2018). Therefore the target was for 99 containers.
- ReShare's norm for a profitable container (based on logistical costs) is a minimal volume of 150 kg per container per week.



The differences between Under Ground (UG) and aBove Ground (BG) Containers

- Placement plan: UG placed by municipality based on plans for waste parks, mainly located in company with containers for other waste streams. BG placed by ReShare based on a gap analysis and are mainly stand alone.
- Communications: BG are bigger than UG. so it was possible to communicate more on BG. In Utrecht, UG had only new communication plan stickers which were less forceful. BG had both old and new stickers.



The analysis

- the number of inhabitants per container per neighbourhood was calculated
- containers were divided into good
 >250kg/wk, sufficient 150-250kg/wk, insufficient 75-150kg/wk, bad <75kg/wk
- containers were divided into under ground (UG) and above ground (BG)
- All 'bad' containers were visited to check potential explanations for their performance.

Neighborhood	Total # UG	# UG good	# UG sufficient	# UG In- sufficient	# UG bad	# inh per	# inh per UG+BG	Total # BG	# BG good	# BG sufficient	# BG in- sufficient	# BG bad
		8				neighb			8000			
Binnenstad	3	3	0	0	0	18.120	4.530	1	0	1	0	0
Leidsche Rijn	7	1	0	3	3	36.540	4.568	1	1	0	0	0
Noordoost	8	4	2	2	0	38.930	3.896	2	2	0	0	0
Noordwest	11	1	3	7	0	43.795	3.650	1	1	0	0	0
Oost	4	1	3	0	0	32.855	5.476	2	0	0	1	1
Overvecht	9	0	4	2	3	34.255	3.806	0	0	0	0	0
Vleuten–De	8	1	4	2	1	48.305	6.038	0	0	0	0	0
Meern												
West	5	1	1	2	1	29.345	2.935	5	3	1	0	1
Zuid	9	2	2	4	1	27.325	3.036	0	0	0	0	0
Zuidwest	7	2	4	1	0	37.995	4.749	1	0	1	0	0
Total	71	16	23	23	9			13	7	3	1	2
	(100%)	(23%)	(32%)	(32%)	(13%)			(100%)	(54%)	(23%)	(8%)	(15%)

Notes: UG - Under Ground containers, BG - aBove Ground containers, inh = inhabitants, neighb = neighbourhood



Lessons Learned

1. 15 extra containers could be placed

based on number of inhabitants per container.

2. BG containers perform better than UG containers.

Taking 150 kg per week as minimal volume, 45% of UG and 23% of BG were not successful. This is confirmed by the analysis of good containers: 23% of UG and 54% of BG. A potential explanation is that BG are more visible and less associated with waste and municipal wasteparcs, compared to UG.

3. Similarities in locations with bad containers (less than 100m distance):

- a) Building area. However this is perceived by ReShare as a temporary barrier. It is possible to place an extra BG for a minimum of 6 months some streets away from the building area. This also requires a thorough communication with local authorities and inhabitants. ReShare never piloted this.
- b) High rise buildings
- c) **Illegal containers**. It is the municipalities' responsibility to act upon illegal containers in the Netherlands. In many cities this has no priority. This has a negative effect on collection numbers.

4. UG containers are emptied weekly in Utrecht - this is a requirement of the municipality. ReShare's norm is that 45% of UG containers have to be emptied bi-weekly. It is **recommended for municipalities to reconsider requirements on collection frequencies to avoid needless inefficiencies,** in logistics with consequences for costs and the environment. *Note: only in case of a high percentage of household waste or high temperatures, it is important to empty more frequently.*

Quality vs. Quantity

Originally this pilot was started to collect data for targeted interventions to increase collection volumes. However, due to an increased percentage of household waste in the textile containers in Utrecht in 2018 (from 15% to 25%), ReShare's primary focus in 2019 is on quality instead of quantity. It was decided to collect data, but to postpone potential interventions until the quality increases. Current interventions on quality include:

- Some UG containers have been closed based on recommendations of drivers. Drivers have valuable knowledge on quality of specific containers/areas.
- In co-operation with the municipality of Utrecht, it was decided to share the financial burden. Collection fees per kg. are not paid for the kg. of waste. Additionally, costs for processing and burning waste are transferred to the municipality.
- Regular contact between ReShare's account manager and the municipality. Possible pictures of waste are shared and waste percentages are reported.



Together with RWS, municipalities and textiles collectors are now looking at how quality of collected textiles can be improved; looking at all kinds of obstacles and improvement options.









ECAP is €3.6 million EU LIFE funded project which aims to reduce clothing waste across Europe and embed a circular economy approach.

ECAP mission

Cutting the environmental impact of clothing across the supply chain. Generating value for business through collaboration, measuring and sharing best practice

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Case studies were generated as a result of pilots carried out for ECAP by WRAP and the named organisations from 2016 to 2019.

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