

Practical aspects of end-of-life textile collection.

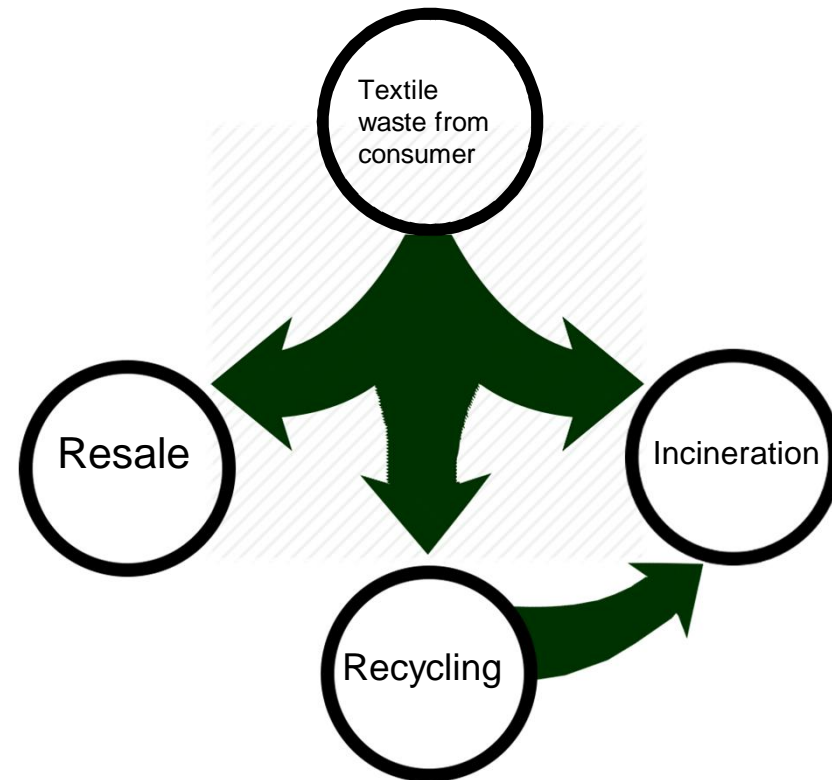
Milja Kokko 18.9.2018

Contents

- 1) How end-of-life textile collection is set up and how the material is sorted.
- 2) The area of study and a review of the experiment on source separation of textile waste.
- 3) Intermediate results from the collection experiment, that goes on until end of 2018.
- 4) Conclusions.

End-of-life textile collection.

- End-of-life textiles are textile products that are no longer fit for use in their original purpose.
- Textile waste collected from consumers is divided into clothes and household textiles that still hold resale value in their original purpose. End-of-life textiles can be utilized in textile recycling. Other waste and textiles that are not fit for recycling are directed towards incineration.
- Textiles might spoil during storage and transportation via moisture or other contaminants.



Area of study.

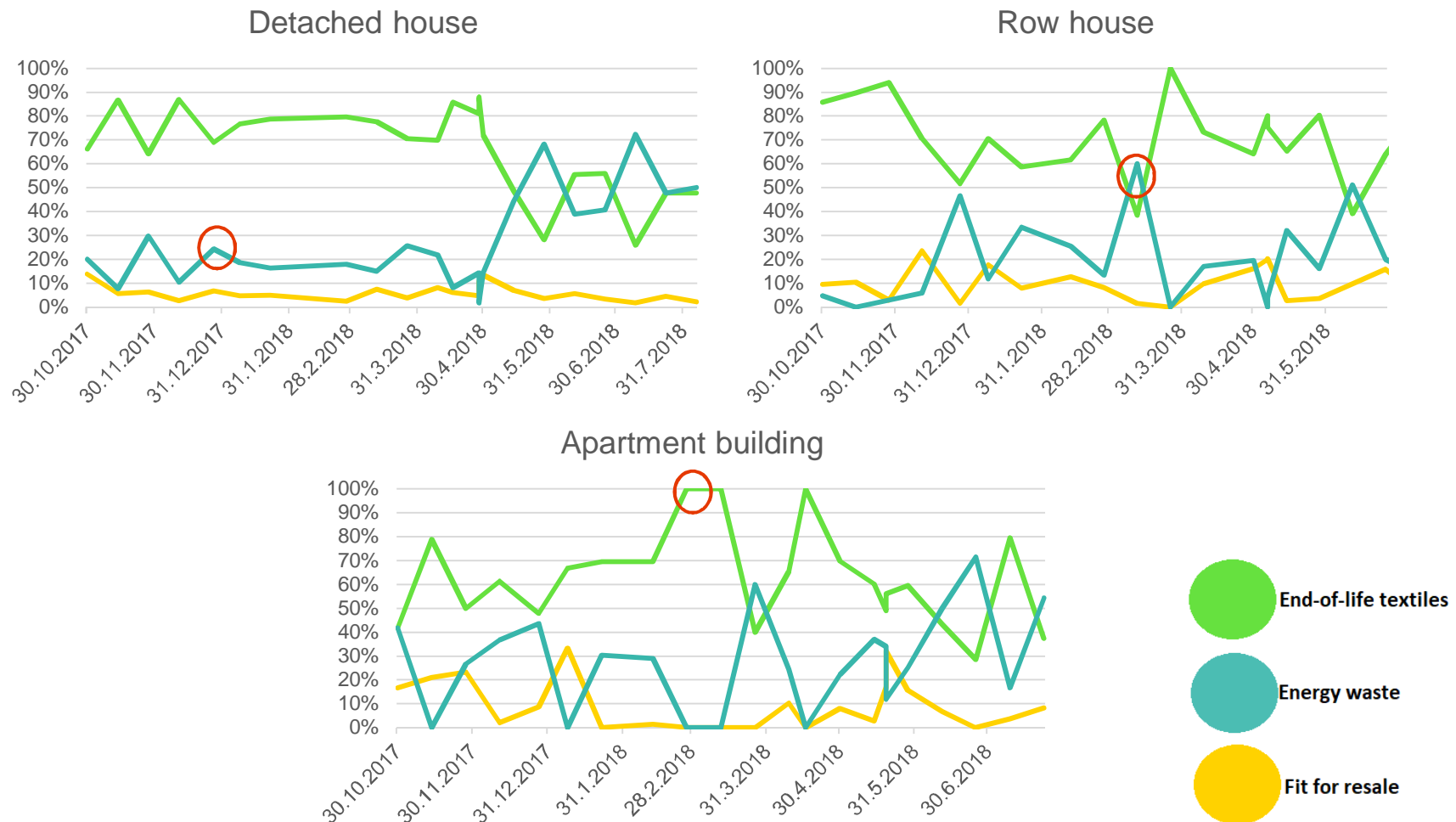
- The aim of the study is to find the collection method that brings in the best quality textiles for recycling (minimizing the amount that goes to resale or incineration).
- The source separation study includes a study on the impact of guidance directed at consumers in the study area. The results are compared to collection at waste treatment centers and sorting stations, different containers at Rauma and Uusimaa and finally textile collection done by UFF in the same area.

The study on source separation of textile waste								Collection at waste stations		Collection at Rauma	Collection at Rosk'n Roll	Collection at UFF
Targeted guidance			No extra guidance				Small waste stations	Large waste stations				
	Detached house	Row house	Apartment building	Detached house	Row house	Apartment building	Manned collection sites					
Area	Eastern Turku	Eastern Turku	Eastern Turku	Eastern Turku	Eastern Turku	Eastern Turku	Eastern Turku	Southwest Finland	Southwest Finland	Rauma	Itä-Uusimaa	Eastern Turku
Placement of the container	Near housing	Near housing	Near housing	Near housing	Near housing	Near housing	Near housing	Centralized	Centralized	Near housing	Near housing	Near housing
Container type	Small stationary metal container (1 m3)	Small stationary metal container (1 m3)	Small stationary metal container (1 m3)	Small stationary metal container (1 m3)	Small stationary metal container (1 m3)	Small stationary metal container (1 m3)	Small stationary metal container (1 m3)	Small plastic container (660 l)	Large metal container (Puhto)	Underground container (Molok)	Multi-compartment container	Small stationary metal container (1,5 m3)

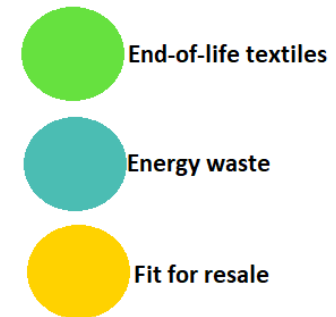
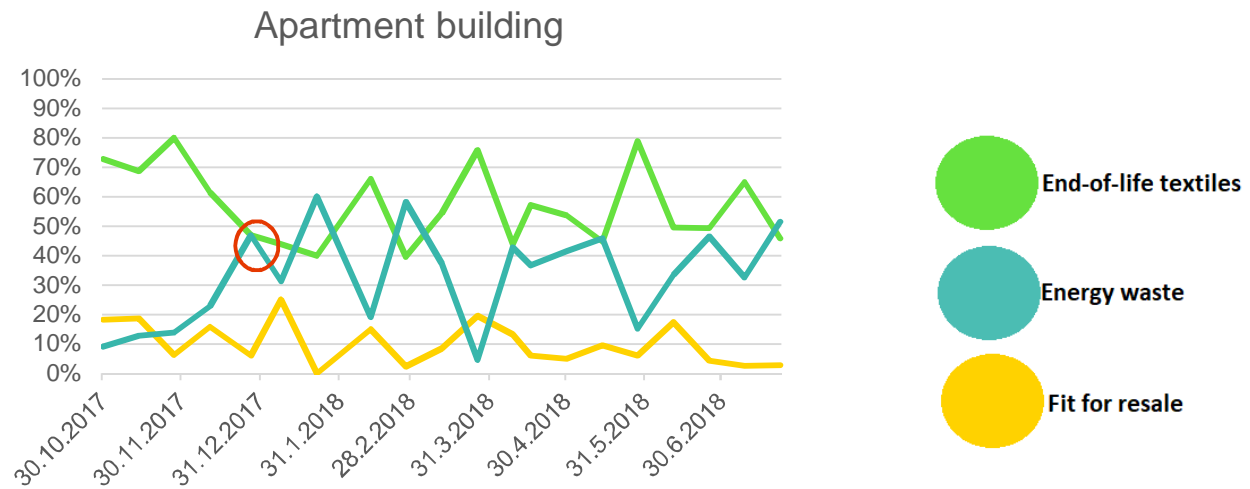
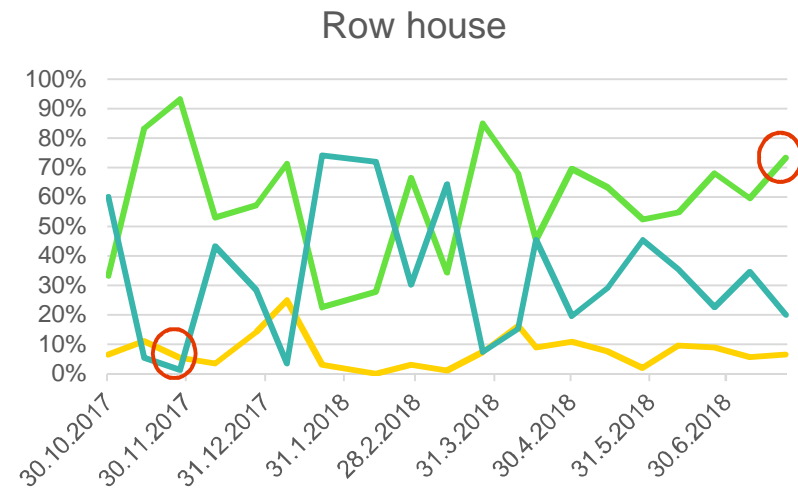
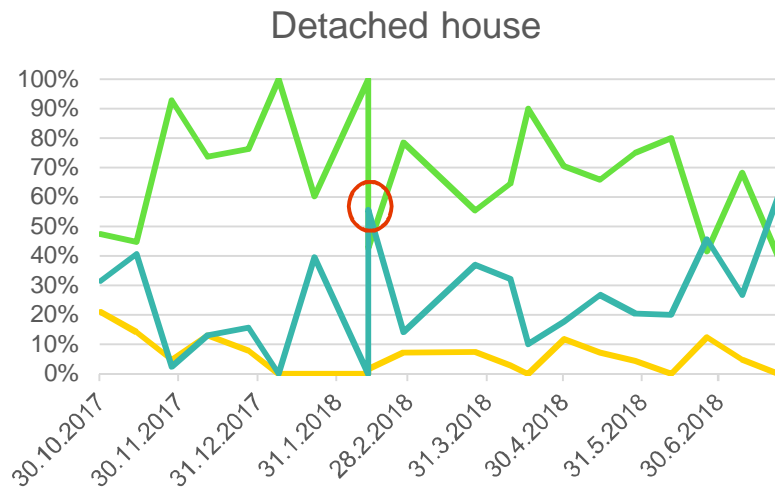


Intermediate results.

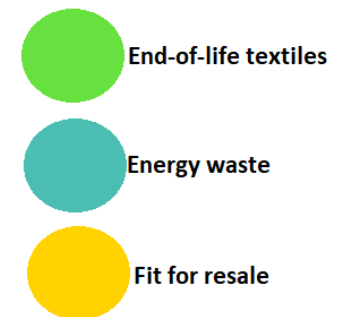
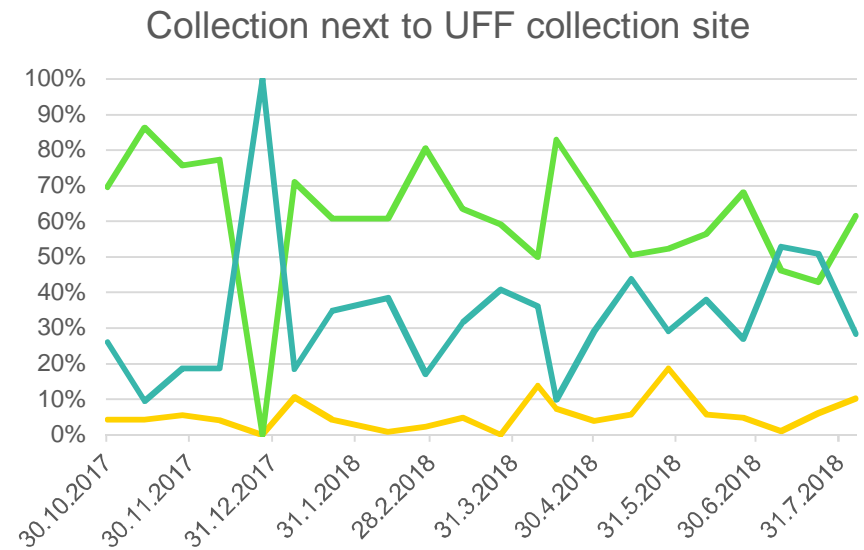
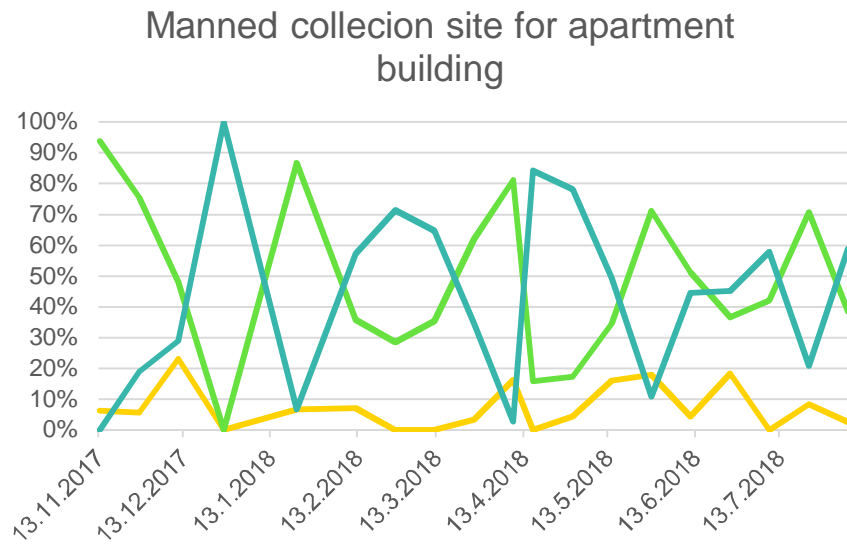
Results for households that received targeted guidance during the experiment.



Results for households that did not receive guidance during the experiment.

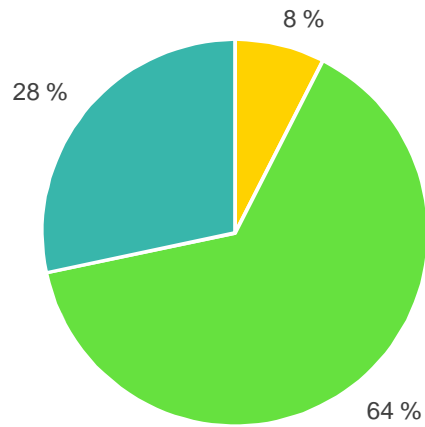


Results for households that did not receive guidance during the experiment – continued.

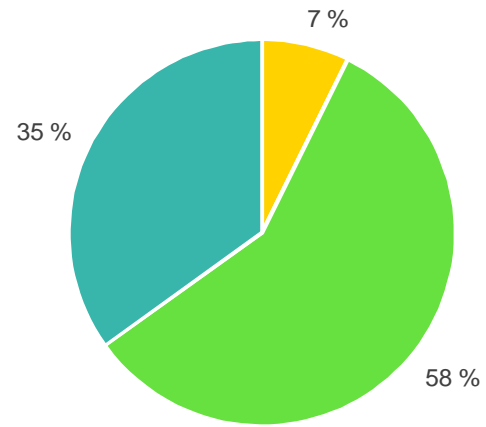


Overview.

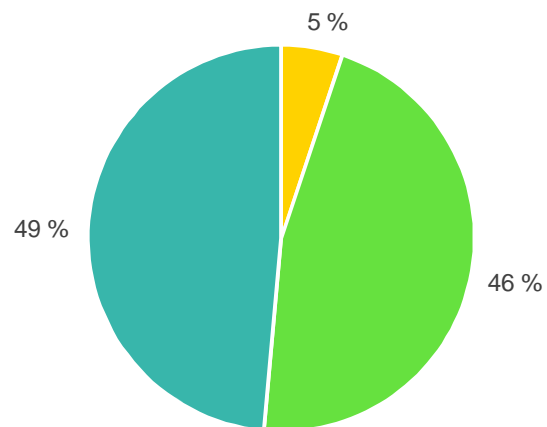
Households, that received guidance



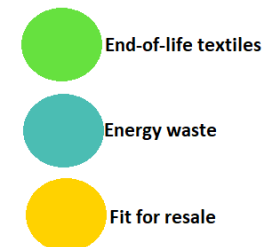
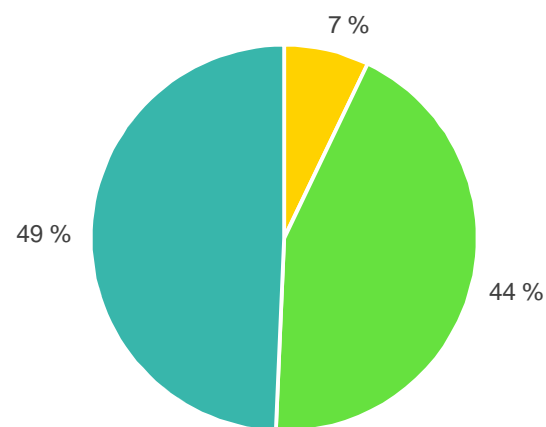
Other households



Waste stations



Rauma



Conclusions.

- There is a lot of variation within the same collection point between collection rounds. This might be partly due to how frequently any one consumer brings their textile waste to the collection point. Also spoilage and relative weights of different kinds of materials have an impact on variation between results.
- Spoiling through moisture, contaminants from textile waste itself or outside and strong scents could render the entire load unfit for recycling.
 - This can be counteracted through frequent emptying of the containers, removing lids from containers during storage and **especially packaging textiles securely in waterproof bags.**
- Changing the habits of consumers takes time. It might take longer than the research period to see a significant change the quality of collected textiles.

Thank You!

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