



Co-Design and Shared Waste Collection Systems

WASTEMAN Final Conference


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June 30, 2022



European
Regional
Development
Fund



An overview...



**Bornholm
showing the
way**
- without waste 2032

BOFA
Vision for waste and resource management on Bornholm.

In 2032 all
waste on Bornholm is
treated as a **resources**

DECOMMISSIONED

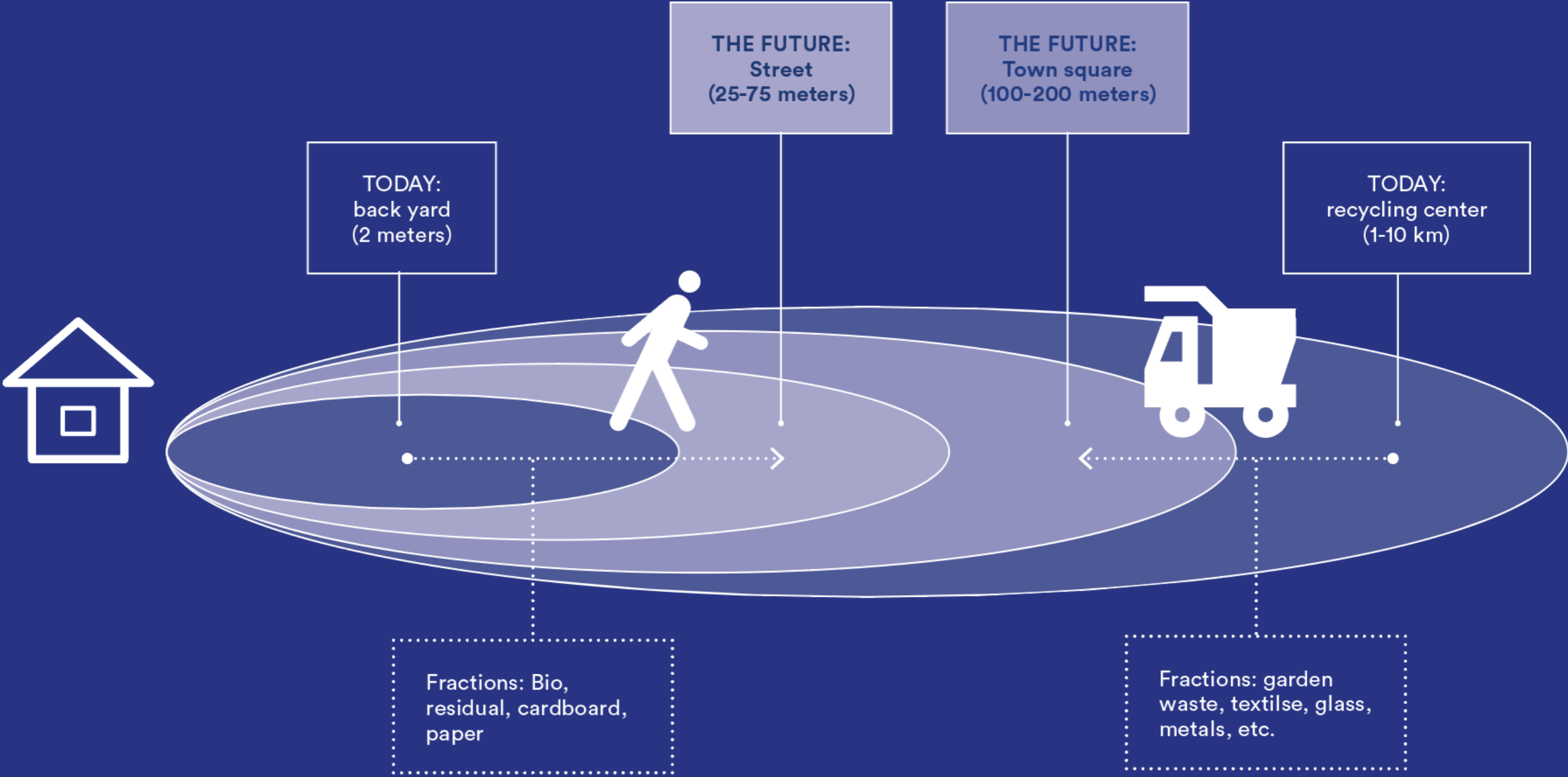
WASTEMAN

Transition from 5 to (at the time an unknown number of) waste fractions collected at household level

Transition from door-to-door-systems to ??? in medieval town centers



'The Concept Figure' — meeting in the middle

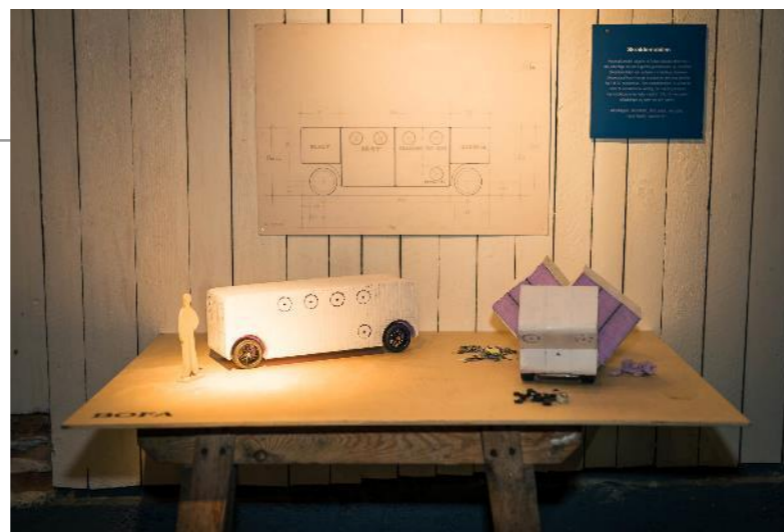
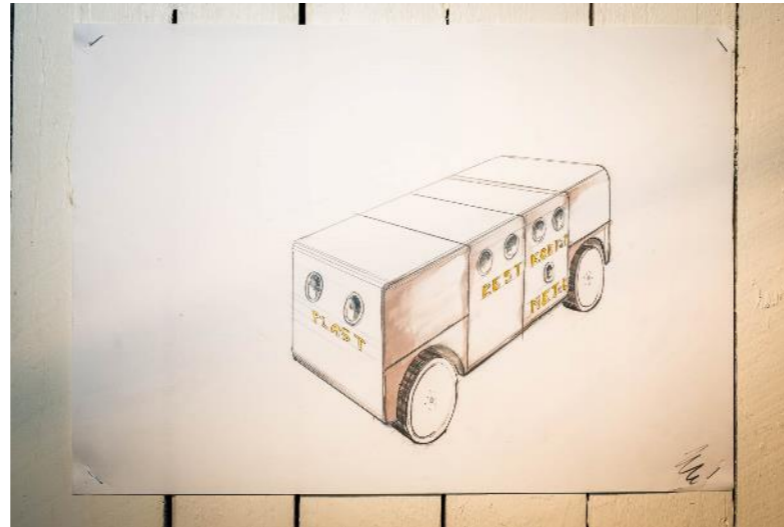




Design Manual for Circular Change

A people-perspective on circular flows through Living Labs

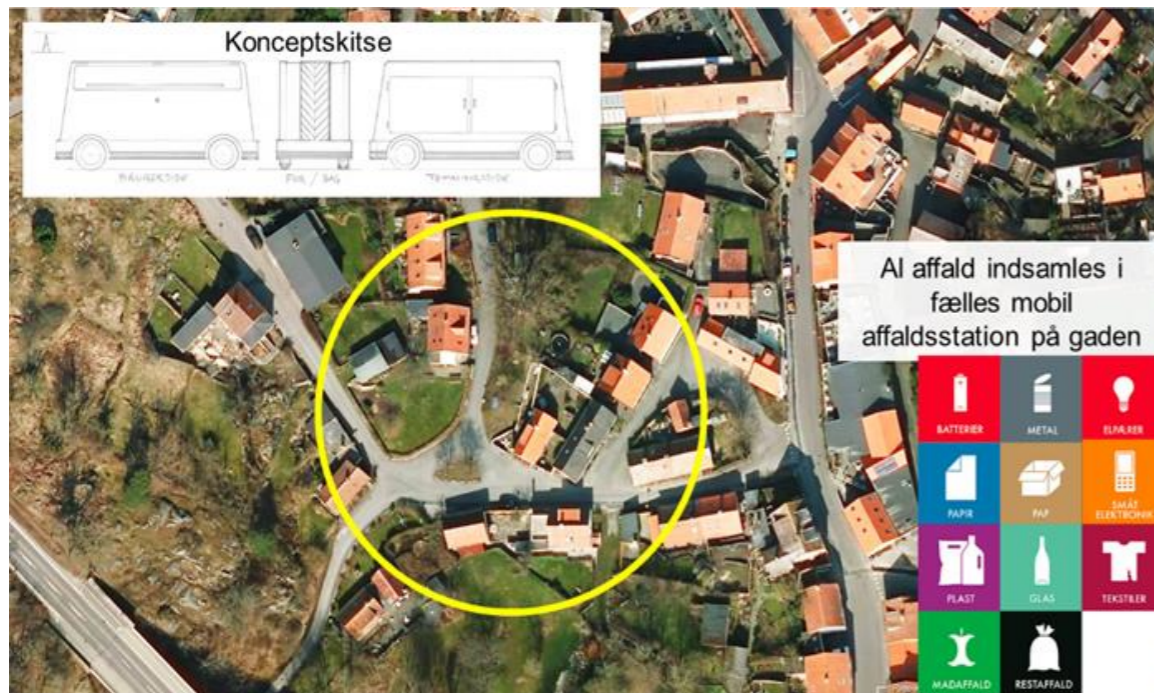
Co-Design Process





Living Labs

- Location: Gudhjem og Pedersker
- Duration: Start mid-October 2020 and 10 weeks total
- Different prototypes:
 - Mobile
 - Stationary



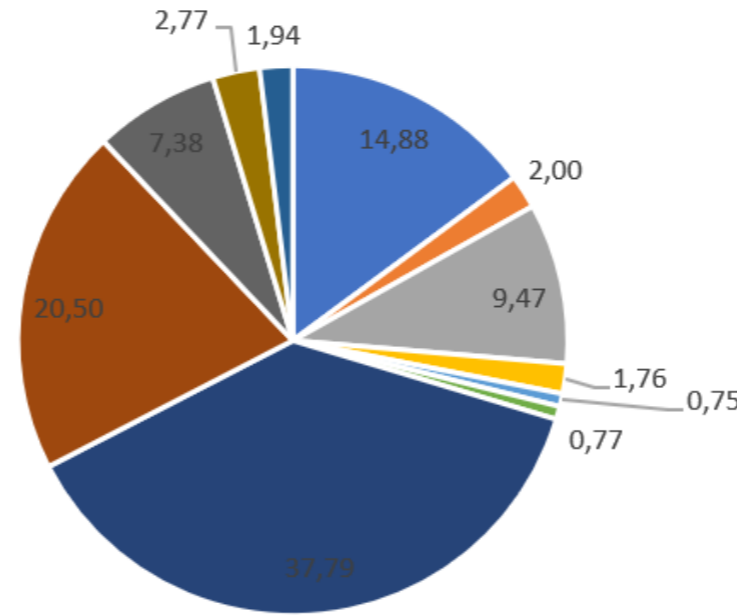


Analyses

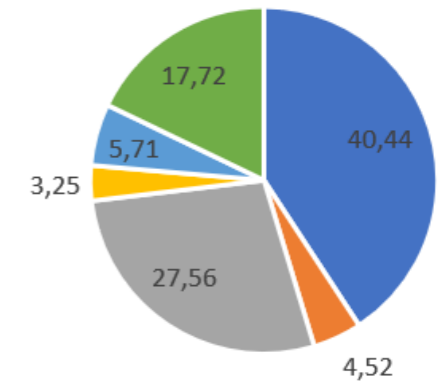
- Waste collection and analysis
- Interviews before and questionnaire afterwards
- Socio-economic assessment



Waste Sorting Analysis: Average Breakdown of Household Waste



Breakdown of Hard Food-Grade Plastic Waste
34,8% of Total Plastic Waste



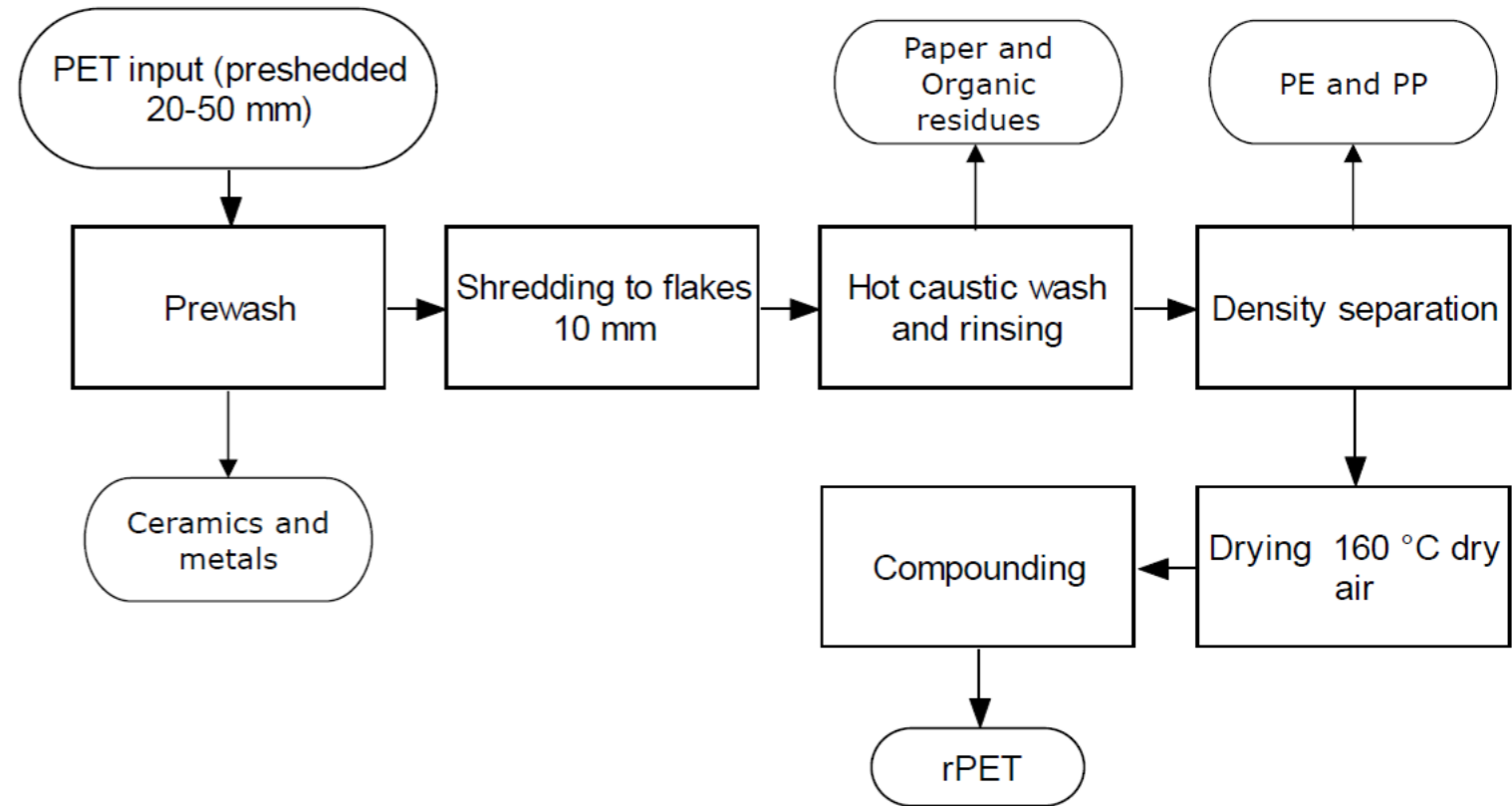
■ PET ■ HDPE ■ PP ■ PS ■ Other ■ Unknown

■ Paper & Cardboard ■ Metal ■ Glass ■ Textile
 ■ Batteries ■ Small Electronics ■ Biowaste ■ Residual
 ■ Plastic Food ■ Plastic Non-Food ■ Multilayer Packaging

Analyses

Socio-Economic Assessment:

“The result is negative which implies that this solution is not economically feasible. However, it does not take into consideration the soft factors and environmental benefits.”



Analyses



Input



Flakes 10 mm



New Waste Collection Schemes through Innovative Public Procurement



- Tender with negotiation awarded to HCS
- 12 waste fractions (cardboard, paper, food and beverage cartons, plastic, metal, glass, textiles, food waste, residual waste, hazwaste, small-sized electronics, batteries)
- Contract length up to 11 years and 3 months
- Award criteria 50% price(!), 50% quality
- Innovative partnerships as part of the contract(!)

Shared Waste Collection Systems

“Miljøere” – 100+ locations on Bornholm



Second Life for the Prototypes



People's Democracy Festival 2022 on Bornholm

Panel Debates



Breakfast with the Danish Minister for the Environment

Tak!

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