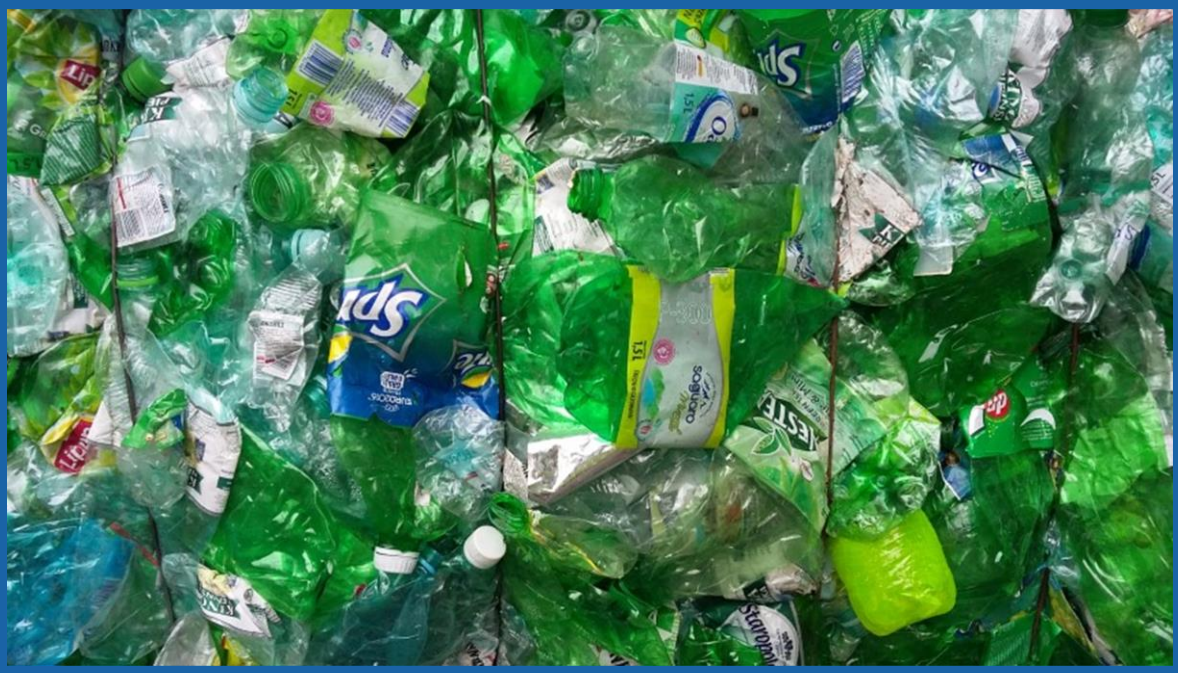

Executive summary of D2.1 Methodology report

ASK 2.1 IDENTIFICATION OF MAIN BOUNDARY CONDITIONS FOR BETTER PERFORMING WASTE COLLECTION SYSTEMS

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Credits

Disclaimer

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Waste collection system in the recycling value chain

In the circular economy, the role of the waste collection system is both to provide a service to citizens so that they can get rid of their waste, and to turn waste into a resource by recycling the sorted fractions.

On the one hand, a waste collection system should provide a suitable framework to citizens so they are willing to cooperate and, on the other hand, enable the collected waste to be sorted and recycled into valuable secondary materials, so that the material loops can be closed.

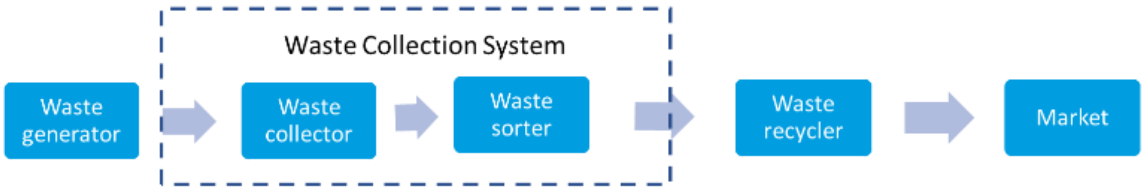

Figure 1: waste collection system in the recycling value chain

The analysis of the role of the waste collection system within this recycling value chain is to be reported in several reports within the framework of the COLLECTORS project:

- D2.1 Methodology report: this report describes the approach to be used to analyse the role of the waste collection system in the recycling value chain;
- D2.2 Analysis of boundary conditions for waste collection systems: this report analyses in a general way the role of the waste collection system;
- D2.4 Report on solutions for tackling systemic and technical boundary conditions: based on the analysis of several specific case studies, this report describes how a waste collection system can help to produce recycled materials of high quality;
- D2.5 Report on implemented solutions and key elements in selected cases for societal acceptance: this report describes the factors that influence the behaviour of citizens to participate in a waste collection system

Boundary conditions for effective waste collection

Objective

The goal of this report is to provide an overview of the approach that the consortium will use to analyse the role of the waste collection system in the recycling value chain. This role is double: providing a service to citizens (= citizens' perspective, and making secondary materials of high quality available to recyclers through sorting and recycling (= recyclers' perspective).

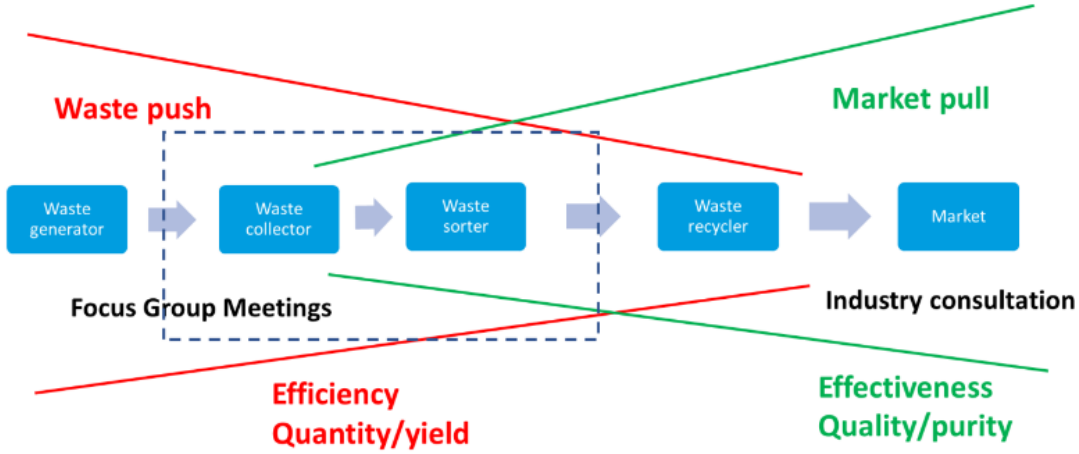

Figure 2: Circular Economy concept shifts recycling from waste push to market pull

Description

Two different approaches were defined to analyse the role of the waste collection for the citizens' perspective and for the recyclers' perspective.

- The factors impacting **citizens' behaviour** with respect to their recycling intention will be identified through a combination of investigating relevant existing literature and a series of 3 focus group meetings with citizens to discuss on what drives people to participate in a waste collection system, and what prevents them to do so.

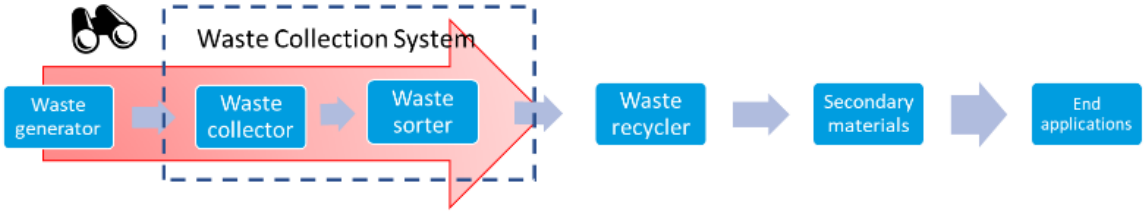

Figure 3: approach for the citizens' perspective

- For the **recyclers' perspective**, we analyse the conditions to ensure that sorting and recycling processes transform collected waste streams into secondary materials so that the material loop is closed. This will be done through a series of workshop where waste and recycling experts will discuss this topic.

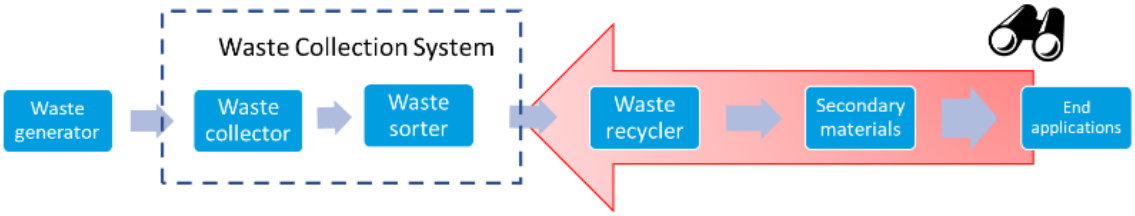

Figure 4: approach for the recyclers' perspective

Additionally, an overview of the waste collection systems will be made in the available database to get more insights in the variety of collection methods (door-to-door, bring points, …) for each waste stream and the corresponding outputs (collected waste fractions) and their respective quality.

For these collected waste fractions, an overview of potential end applications will be made to identify where the outputs generally end up in and the corresponding quality requirements implemented to close the material loop in a qualitative way.

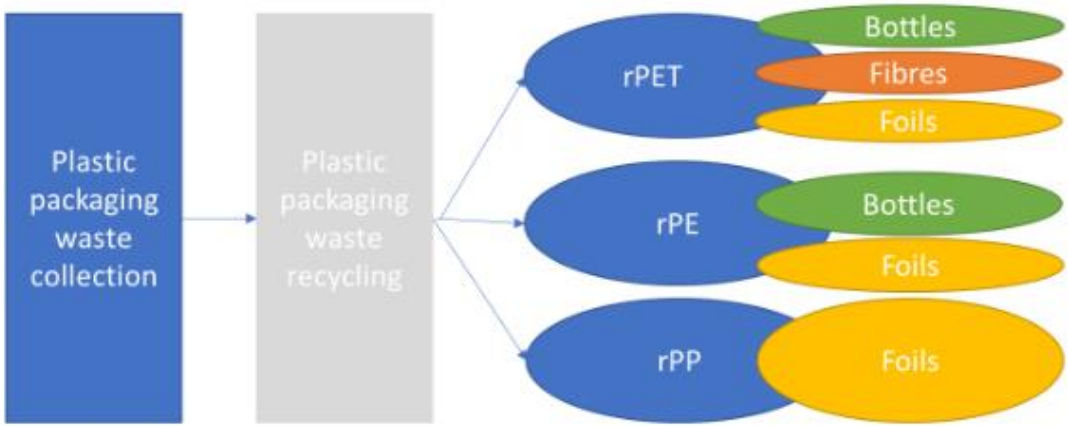

Figure 5: Illustration of end applications for

The results of this approach will be reported in the report D2.2: Analysis of boundary conditions for waste collection systems and applied on a selection of case studies in D2.4 and D2.5, where we will analyse respectively from a recyclers' perspective and a citizens' perspective.

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