



# SMEs Barriers & Drivers

on ZKD business area in The Hague

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# 1. Introduction

This report is part of the Interreg 2 Seas project Upcycle Your Waste (UYW). The objective of this project is to contribute to the adoption of circular business cases by SMEs in selected business areas, in order to transform waste flows into resources at local level.

This is to be achieved by developing and introducing knowledge, tools and facilities that enable SMEs and local authorities to make this transition. For this, upcycling solutions for waste streams of companies located in the targeted business districts in the partner areas are IJmond, The Hague, Ostend, Roubaix, Kent and Norwich are identified, selected and implemented. The overall result of UYW project is an increase of 360 SMEs adopting circular business cases leading to 20% of the waste streams being upcycled. Additionally, the project will raise awareness and knowledge on waste and upcycle possibilities of SMEs, local authorities, business district managers in the partner areas and, by further dissemination, also in the areas where our observers and selected network partners are active, through our capacity building and dissemination and transferring activities.

The first phase in the project is to identify upcycling solutions for waste streams. As a first step in this phase, the barriers and drivers for companies to separate waste separation and adoption of upcycling solutions are identified. These are mapped by scientific research and, more specific, through interviewing the SMEs in the involved pilot areas.

Knowledge on the barriers & drivers that SMEs experience, are important for the success of the project. Knowing on which aspects to assist SMEs in overcoming the relevant barriers and supporting them on specific drivers, will increase the chance on realizing upcycle business cases. In order for the project to realize the above-mentioned goals the following activities are part the UYW project:

1. Analysis of barriers, drivers & regulations for business waste upcycling in the 2 Seas area
2. Inventory of waste streams at business area level
3. Develop circular business cases for solutions (processes, products) on key waste streams
4. Development of a protocol for procurement of circular waste collection and treatment
5. Capacity building and training for SMEs circular waste processing
6. Development of guidance for accelerating the adoption of circular business cases

In this report the results of the interviews on barriers and drivers with SMEs in the pilot area (business area Kerketuinen, Zichtenburg, Dekkershoek) in The Hague are presented.

The objective and approach for the interview on the barriers and drivers are described in chapter 2. In chapter 3 general information on the participating SMEs is given. Chapter 4 describes the outcome with regards to questions on current waste streams and barriers and drivers. The suggestions of SME' on options for improving waste separation and re-use is given in chapter 5 and in chapter 6 the further involvement of the SMEs in the project is shown. The outcome of the interviews is analyzed in chapter 7 resulting in the reporting of the conclusions and recommendations in chapter 8.

## 2. Objective and approach

### 2.1 Objective

The objective of obtaining the barriers & drivers of SMEs for realizing upcycle solutions in the pilot areas is threefold:

1. introduce them to the UYW project and its goals;
2. determine what hinders or thrives them to separate and or re-use waste;
3. learning the needs of the SMEs in order to use this in the next steps of the project, which is expected to improve the realization of the goal of the project.

As mentioned before objective is achieved by literature study and by interviewing the participating SMEs in the pilot areas.

### 2.2 Approach

The approach for interviewing the SMEs on barriers and drivers has the following sequential steps:

- draft questionnaire;
- make general planning;
- local introduction via several channels (business associations, meetings, websites, folders, etc.);
- training of interviewers;
- getting in touch with SMEs;
- testing of the questionnaire and the interviewers based on first 5-10 interviews;
- conducting the interviews. In many cases the interviews on the barriers and drivers were combined with the waste scans.

The original plan was to visit the companies and get an idea of the companies processes and waste stream, conduct the interviews with relevant persons and if needed retrieve the necessary information directly. For instances interviewing the facility manager and retrieve waste contract and invoice from the administrative representatives in one visit. However, due to the Corona-crisis the interviews could not (always) be conducted at the companies and in person. Therefore, the surveys were conducted by phone or via a video call.

The interviews started in March 2020 and finished at the end of June 2021. The start of the interviews converged with the beginning of the Corona pandemic and first lock-down and the approach had to be changed and most of the interviews had to be conducted by phone. During the whole period in which the interviews were conducted, the SMEs were very busy coping with the effects of the Corona crisis. Many companies did not have time for the interviews due to severe disruptions in their operations. Therefore, the period in which the interviews were executed was extended with approximately 6 months.



## 2.3 Set up of the interviews

To interview the SMEs a questionnaire was developed with the partners. An overview of these questions is given in Appendix A.

The questionnaire starts with the questions to retrieve the characteristics of the companies and the interviewees. The questions are about the type and size (in FTE) of the company, and the function of the interviewee. The purpose of this is to be able to determine if certain sectors are dominantly present and if the answers differ (f.i composition of waste stream or barriers) based on sector, size, function of the interviewee. The result is given in chapter 3.

The second series of questions aim to identify the current waste streams and discarded products and if these are being separated and recycled/re-used. It further aims at current barriers and enablers are for separating and recycling these waste streams or discarded products. The purpose of these questions is to establish the current waste management baseline on knowledge, awareness and actual performance. The outcome of these questions is presented in chapter 4.

The third series of questions aims to establish whether the interviewees identified opportunities on improving on separation and re-use different or more waste streams or discarded products, what thrives or hinders them in realizing this, and whose help they could use in realizing increased separation and re-use of their waste stream or discarded products. The purpose of these questions is to find out what more would be possible and how that could be achieved. The results are presented in chapter 5.

The questionnaire ends with feedback of the interviewee on the questions and if they want to be informed about the outcome of the interviews and the project in general. Answers on these questions are presented in chapter 6.

In many cases the questionnaire on barriers & drivers was combined with the waste scan. In most cases the interview on the barriers & drivers and the waste scan was conducted with the same person.

The outcome of the interviews on barriers & drives and waste scan are both anonymized and bundled per pilot area and reported separately.



# 3. Interviewed companies ZKD

## 3.1. Introduction

The interviews with the participating SMEs on business area Zichtenburg, Kerketuinen Dekkershoek (ZKD) started with questions on the characteristics of the company and the interviewee. The outcome on the question of the size of the company is given in (paragraph 3.1). The question about the function or position of the interviewed person gives information what the source of the information is (paragraph 3.2). The size of a company is asked in the numbers of employees, because this is a number usually easily available and not considered confidential. Information of a type of company (paragraph 3.3) can help to explain or understand the barriers and drivers as well as the separated types of waste.

The purpose of this is to be able to determine if certain sectors are dominantly present and if the answers differ based on sector, size and/or function (f.i composition of waste stream or barriers) of the interviewee.

## 3.2. Size company

A total of 81 companies representing 130 locations were interviewed. Of these 81 companies 34 are micro-SMEs and 30 are 10+SMEs. Of the 10+SMEs, 25 are small companies (between 10 and 49 FTE) and 5 medium sized companies. There were also 4 large companies (more than 250 FTE) interviewed. The size was not specified at 13 companies.

Size of company	Amount
Micro (1 – 9 FTE)	34
Small (10 – 49 FTE)	25
Medium (50 – 249 FTE)	5
Large (>250 FTE)	4
Size not recorded	13
total	81

## 3.3. Position/function interviewed persons

On the question “What is your position/function?” the answers of the interviewed people are given in the table below. The total amount of companies interviewed was 81 of which 64 answered on the questions on barriers and drivers. In the table below with “owner” means; the person who owns the company. The CEO is the person that manages the company (director). With “management” we mean the middle layers of the organization, just below the owner or CEO. “Coordinators” are in most cases quality or environmental coordinators within the company.



Type of function	amount 10+SMEs (10 FTE or larger)		amount micro companies	
	number	%	number	%
Owner	7	23%	16	47%
Management	21	70%	9	26%
Support staff	0	0%	4	12%
Others	2	7%	5	15%
Total	30	100%	34	100%

The function of the interviewed people of micro companies are mainly owners. For the 10+SMEs the interviewed people were mainly managers, which is to be expected in larger organizations.

### 3.4. Type of company

The interviewees were asked: “What type of business is your company?”. The results of the 64 given answers are given below. Of 1 micro and 5 10+SMEs the business line wasn’t provided. The types of companies have been classified in the general terms as production, trade, food (table below), except for the garages, which was defined as a specific group (Car branch) due to the relative high amount of garages interviewed at 10+SMEs at ZKD.

Type of company	amount micro companies			amount 10+SMEs		
	number	%	rank	number	%	rank
Production	7	21%	2a	4	15%	2a
Car branch	1	3%	4a	4	15%	2b
Office	11	33%	1	3	12%	3a
Food	1	3%	4b	3	12%	3b
Trade	7	21%	2b	2	8%	4
Distribution and logistics	0	0%		1	4%	5
Miscellaneous	6	18%	3	9	35%	1
Not stated	1			5		
Total	34			30		

A significant number of companies at SME10+ were in the car branch, therefore this branch was mentioned in the table explicitly. The interviewed micro companies were predominately offices and in lesser numbers trade or production companies. The interviewed 10+SMEs has a wide variety of types of companies, which are equally divided between production, car branch, each 15% and Offices and food companies, each 12%.



# 4. Current waste streams, barriers and drivers

## 4.1. Introduction

To get information on the what the companies are currently separating the question was asked if companies separated waste or discarded products for recycling or reuse, and if so, what type of waste or wasted products. The outcome of this question is given in paragraph 4.1 and provides insight in the upcycling possibilities. In order to get information about barriers and drivers that SMEs are currently experiencing they were asked why they don't separate their waste (paragraph 4.2), and if they do, what thrives them to separate these waste streams or wasted products (paragraph 4.3).

## 4.2. Types of waste

When the interviewees were able to give any answer and as many answers they wanted. The answers were not restricted. The question was: "Do you separate any waste/discarded products for recycling / reuse (also for internal reuse or back to the supplier)?"

An overview of the most mentioned materials/wasted products is given for micro and 10+SMEs. Overall, 124 different materials were mentioned by the companies. The top 9 answers (including "others") is presented in the table below. Leading for the table are the answers given by the 10+SMEs, because the expectation was that these companies would have more waste streams.

Material	Times mentioned by 10+ SMEs			Times mentioned by micro SMEs		
	rank	percentage	number	Rank	percentage	number
Old paper/cardboard	1	13%	24	1	13%	36
Residual waste	2	10%	17	2	12%	34
Plastics (mixed)	3	5%	9	3	6%	16
Glass	4	3%	5	5	2%	5
Iron/steel	5	2%	4	5	2%	5
Metal	6	2%	4	7	0%	1
One-way pallets	7	2%	4	4	4%	12
Car tires	8	2%	3	6	1%	3
Others		30%	54		31%	88

Waste paper/cardboard is the most frequently mentioned by both types of companies. Residual waste and plastic were in second and third place for both company sizes. One-way pallets were mentioned more often by micro-enterprises than the 10+SMEs.

Under "Others", 63 different types of materials were reported by micro and 10+ SMEs, such as batteries, brake fluid, electronics/appliances, cooking oil, stone, white goods and wood. Micro companies mention oil (machine, cars), plastic film, toner and printer cartridges more often than 10+SMEs. "Other" materials are only collected separately from 3 companies

The table shows that the top 5 for both micro and 10+ SMEs are waste paper/cardboard, mixed plastics, glass and iron/steel and metals. Legally speaking, these materials must be collected separately and it makes economic sense.

In most cases, waste is separated and collected separately due to the legal obligation (Hazardous waste eg batteries) or due to economic perspective (eg steel scrap).

The material definitions used by the interviewees are in many cases also used by the waste collectors and are general waste definitions. However, this does not reflect the full perspective of these waste streams. For example: paper/cardboard, which can also be boxes that are traded. If cardboard is not a box, they can 'only' be recycled. "Plastics" can also be discarded products, such as buckets or barrels, and can be traded. If they are broken or do not have their original shape, they can "only" be shredded.

### 4.3. Barriers to separate

To get an idea on the current barriers SMEs experience they were asked: “Do you separate any waste/discarded products for recycling/reuse (also for internal reuse, or back to the supplier) and if no: why not?”. Their answers are listed in the table below. The interviewees could give as many answers as they wanted. The response to these questions was relatively low.

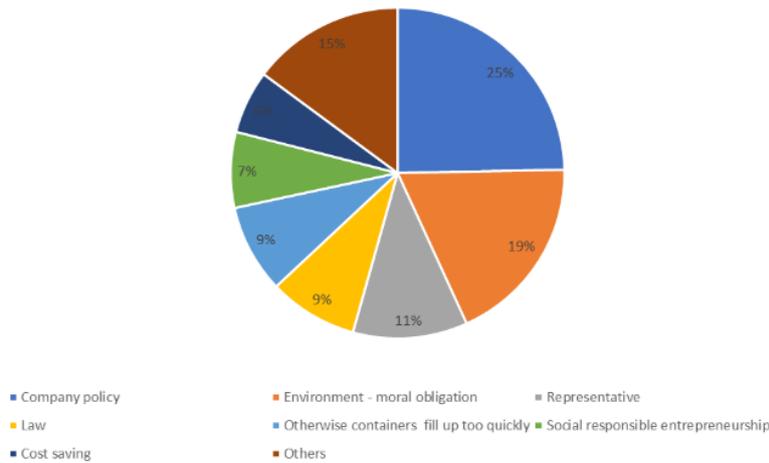
Barrier	Micro companies	10+SMEs
Costs	2	3
Too small amount of waste	6	4
Only one type of waste	1	0
Not aware	0	1

### 4.4. Drivers to separate

To find out what the current drivers for companies are to separate waste stream or waste products, they were asked: “Do you separate any waste/discarded products for recycling/reuse (also for internal reuse, or back to the supplier)?” and why do you separate it?”. The interviewees could give as any and as many answers they wanted.



Why do micro companies separate this waste/discarded products for recycling/reuse? (n=81)



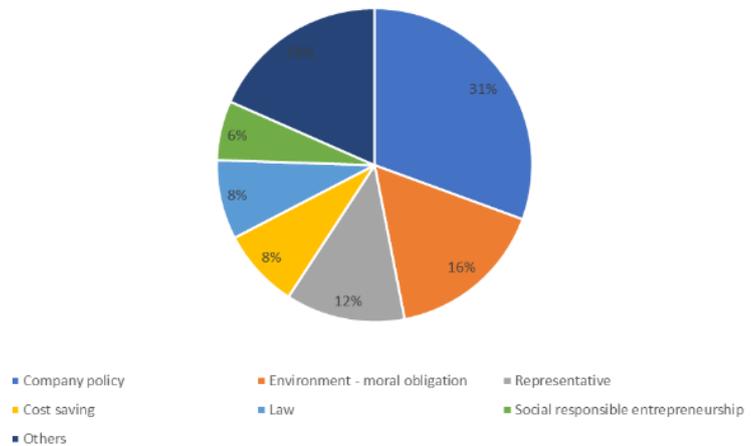
With “law” the interviewees mean that they separate waste because they think they are obliged by law to separate them. With “representative” the interviewees find waste separation professionally required for customer and visitors. “Company policy” means there is internal policy on waste, costs saving, appearance, and perhaps even circular economy in place.

The most mentioned perceived drivers were “company policy”, “environment-moral obligation”, “representative”, “social responsible entrepreneurship” have common ground and indicate that companies want to feel and show themselves responsible in their care of the environment.

For micro companies the drivers “law” and “containers filling up too quickly” are mentioned 4<sup>th</sup> and 5<sup>th</sup> most.

For the 10+SMEs the 4<sup>th</sup> and 5<sup>th</sup> most mentioned drivers are respectively “cost saving” and “law”. Because 10+SMEs are likely to have more waste, “cost” is a logical and understandable driver to separate and recycle.

Why do SME10+ companies separate this waste/discarded products for recycling/reuse? (n=49)



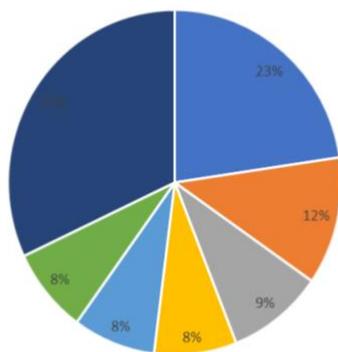
# 5. What could be done more

## 5.1. More types of waste that could be separated

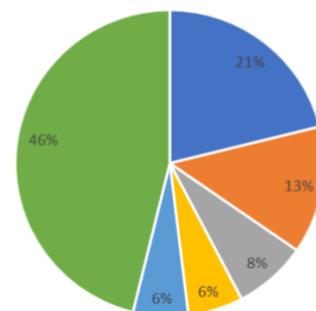
To find out if the SMEs see opportunities for waste that are currently discarded as residual waste, to be separated and re-used they were asked: "In your opinion, do you see more possibilities for separating more waste streams/discarded products? Which ones?". The companies could state all the waste streams/discarded products they could think of.

20 different types of materials were given by micro companies and 25 different types were mentioned by 10+SMEs. The pie charts give an overview of the answers per company category. In order to keep the pie chart readable, only answers that were given with a higher score than 5% are shown. The answer "None" is not included in the pie chart.

What more materials could be separated at micro companies (n=75)



What more materials could be separated at SME10+ companies (n=52)



■ plastics mix ■ Coffee ground ■ wood ■ Coffee cups (paper) ■ paper ■ plastic foil ■ Others ■ Plastics mix ■ Organic material ■ Coffee ground ■ Glass ■ Wood ■ Others

Based on the overview for both micro (one third) and 10+ SMEs (almost 50%) it appears that many "other" waste materials can be separated. So, there are many small waste streams that it is thought to be possible to separate, whereby that stream is for the 10+ SMEs. is bigger. This is to be expected based on the size of the company.

Examples of wastes listed with a score of less than 5% are: aluminum, bricks, building materials, boxes, EPS, food scraps, furniture, plaster and paraffin. Waste streams mentioned more often, such as coffee grounds and coffee cups, could also have been classified under residual waste (based on the general waste classification terms). This is because the companies often use the material description used by the waste collectors (plastic, paper/cardboard, textile).

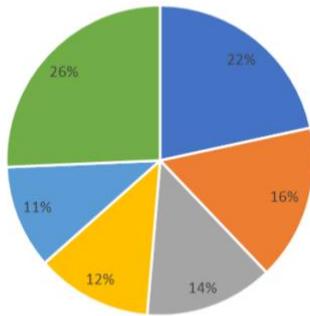
The answer "none" is not shown, but was given eleven times by the micro companies and six times by 10+SMEs.



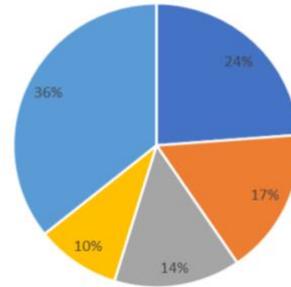
## 5.2. Barriers to separate more

To learn more about the barriers companies experience to separate more, the question was asked: "If more could be separated/reused, why is that not being done?". The answers given in 10% or more are presented in the pie charts below.

Why is there no more waste separated at micro companies (n=74)



Why is there no more waste separated at SME10+ companies (n=42)



Legend for barriers to waste separation:

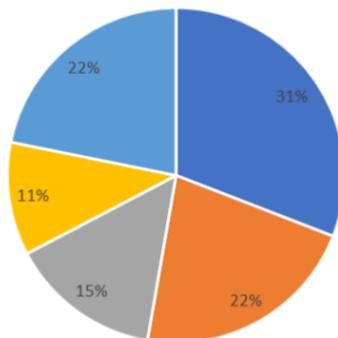
- Not offered by waste collector
- Lack knowledge
- Too small amount of waste
- Costs
- Easy to put in residual
- Others

The answers that comprise "Other" for micro companies are: no interested party for the material, lack of space, doubts whether it really helps / lack of trust in usefulness, and lack of time. For 10+SMEs these are: lack of space, time, awareness or experience.

## 5.3. Drivers to separate more

To learn more about the drivers of companies to separate more waste or discarded products was SMEs were asked: "What would be reasons for you/your company to separate/reuse more waste streams/discarded products?".

What would be reasons to separate more waste at micro companies (n=55)?

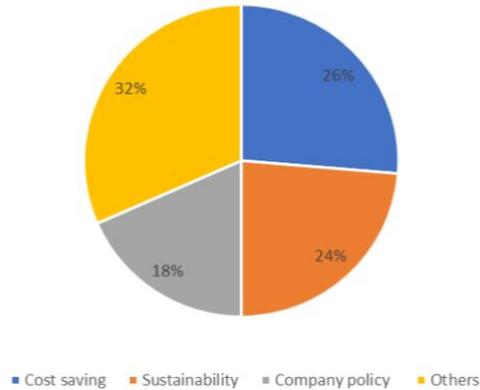


Legend for drivers to separate more waste:

- Cost saving
- Sustainability
- Company policy
- Representative
- Others

The table below provides an overview of the driver mentioned by interviewees of 10+SMEs.

### What would be reasons to separate more waste at SME10+ companies (n=38)?



The drivers being mentioned by micro companies differ not that much from those mentioned by 10+SMEs. The main drivers to separate more are for both micro and 10+SMEs; company policy, environment/moral obligation and representative, although they differ somewhat in percentages. Cost saving seems to be slightly more important for Micro companies than for 10+SMEs.

Micro companies find “representation” (11%) more important than for 10+SMEs (5% and therefore not shown in the pie-chart).

Among the answers listed under “Other”, micro companies mentioned: create more space in the residual waste bin, have access to appropriate infrastructure and easier handling.

Answers given by 10+SMEs were e.g., representative, access to appropriate infrastructure and knowledge.

## 5.4. Appreciated help

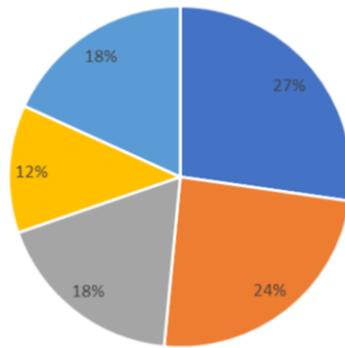
In order to determine if help is appreciated and what kind of help this should be the companies were asked: What do you/your company need to separate more waste streams/ discarded products?

To keep the graphs readable only the answers given in 10% or more of the cases are shown. Some companies gave the answer “not applicable” means, they don’t need (extra) help.

The first pie-chart presents the answers stated by interviewees of micro companies.



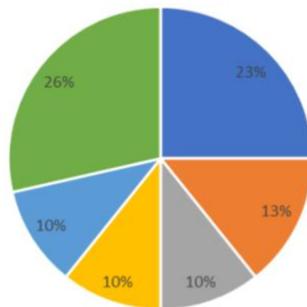
Additional support or services micro companies need to separate waste further (n=33)



■ Company that picks up ■ Not applicable ■ Space ■ information/knowledge ■ Others

The pie chart below provides an overview of the answer given by interviewees of 10+SMEs.

Additional support or services SME10+ companies need to separate waste further (n=31)



■ Company that picks up ■ Space ■ Financial benefit ■ Information/knowledge ■ Not applicable ■ Others

Micro-enterprises were about 2½ times more likely to say "not applicable" than 10+SMEs. This could be explained by the fact that micro-enterprises have smaller amounts of waste and therefore feel that help for more waste separation is not necessary or worth the time and effort.

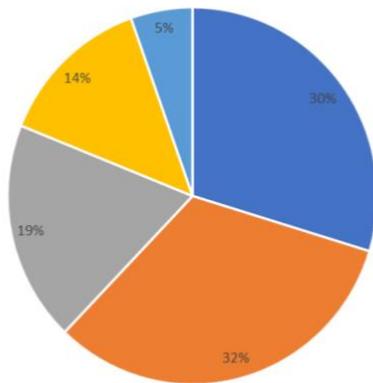
Both micro and 10+SMBs cite "pick-up company", "space" and "information/knowledge" as key providers of help. 10+SMEs also mentioned "financial advantage" when answering their request for help.



## 5.5. Possible provider of the help

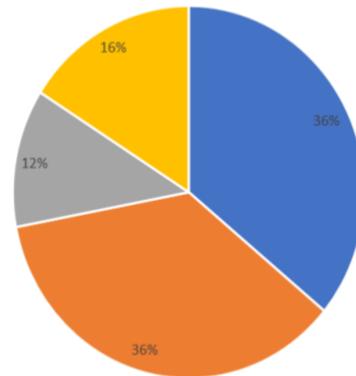
In paragraph 5.4 the answers to the question “What do you/your company need to separate more waste streams/discarded products?” were shown. To learn more about whom the SMEs thought should provide this assistance they were asked: “who should provide this help?” To keep the graphs readable only the answers, scoring 10% or more, are shown.

Who should provide help to micro companies? (n= 37)



■ Waste collector ■ Local municipal ■ Not applicable ■ Branche organisation ■ Others

Who should provide help to SME10+ companies? (n= 25)



■ Local municipal ■ Waste collector ■ Not applicable ■ Others

Companies in the Netherlands are legally obliged to hire a waste collector to collect and process their waste. Regional environmental protection authorities are involved in licensing, monitoring and enforcement. Nevertheless, municipalities were mentioned by both micro and 10+SMEs in an equal percentage as the organization that should provide help. In both company categories, the waste collectors were also reported in more or less equal percentages. Micro-companies mentioned an industry association as an organization to provide assistance in 14% of the cases, while these organizations are not mentioned by 10+SMEs.

The local municipality as the most frequently mentioned resource, next to waste processors, is remarkable, and shows that some companies do not know the rules for waste collection, after all, it is not the responsibility of the local municipalities.

## 6. Impression of the interviewees

To know more about the acceptance of the project amongst the participating SMEs, the interviewees were asked:

- Do you have any questions, comments or additions?
- May we keep you informed about the results and the progress of the project?
- Would you like to receive newsletters that contain information on events, updates, progress etc.?

Approximately 25% of the interviewees answered these questions. Most of these answers were ideas or questions about additional options for waste separation on what to do more with the waste and were curious on the results of the project. A few examples:

- Everything is clear. Would like to get rid of the cost of cardboard processing! Do you think the reuse of this is a nice side effect?
- Solutions should not take up more space than the existing containers.
- For small companies with little waste, it is often expensive or inconvenient to enter into a contract for waste separation. It could be an idea for the municipality to place underground waste containers nearby.
- Wonders to what extent the municipality can do something about this. Is it more about agreements between the municipality & collection services?
- What will be the next stage of the project?
- Would like to be contacted if costs saving are possible.

71% of the micro companies and 63% of the 10+SMEs wanted to be kept informed about the project. Most of them also wants to receive the newsletter.



# 7. Analysis

## 7.1. Interviewed companies

Chapter 3 shows the size and type of company and the function of the interviewee in the companies located in the The Hague ZKD business area. The reason for looking into this is that answers could probably differ based on company size or function of the interviewee. If significant deviation in answers could be noted this is mentioned in the specific analysis of the specific questions.

The micro companies are the largest group within the interviewed SMEs. This group was dominated by offices and in lesser numbers trade or production companies. The interviewed 10+SMEs had a wide variety in types of companies and are equally divided between production, car branch and offices and food companies.

Amongst the micro companies most interviewees were the owners. Of the 10+SMEs the managers were most represented.

## 7.2. Waste stream, barriers, drivers

Based on the answers given by the interviewed companies, paper/cardboard, plastic and wood and to a lesser extent glass, iron/steel, metal and one-way pallets appear to be the most separated flows. The ranking and percentages of the aforementioned waste flows do not differ much between micro and 10+ SMEs. Residual waste was also often mentioned. The answers given were to be expected, because it concerns the most common waste streams generated by SMEs that must be separated and collected separately.

It is striking that there are no wasted products, such as bottles, cardboard boxes, crates, buckets or barrels, except for (one-off) pallets. This could be explained by the fact that entrepreneurs are not aware that these (waste) products are still valuable products/raw materials as a second-hand product or because they are tradable and have economic value.

For example, if cardboard is still in its original shape and a clean and reusable box, it can be sold to generate revenue instead of paying for recycling. Plastics can be a bucket or barrel, which also have commercial value. The outcome indicates that most companies think of waste in terms of costs, costs of "waste" and "recyclable waste" and not in terms of value of products or valuable waste.

For SMEs, the focus is on the company's core business and not on market opportunities for (waste) products or waste materials. If they could be made aware of trade or business opportunities, they could save a lot of waste (products) and money.

Many different waste streams were mentioned as more separable waste streams. The most frequently mentioned flows are plastic, coffee grounds and organic materials. Other materials, in percentages higher than 5%, are wood, glass, paper, coffee cups. The share of other materials, such as aluminum, building materials, boxes, EPS, food waste, bricks, furniture, plaster and paraffin, which were mentioned in less than 5% of the cases, made up 32% for micro-enterprises and for 10+ SMEs almost 50% of the total. If companies are able to inventory so many waste flows, it can be expected that the interviewees are well aware of their waste flows.

The fact that plastic, organic materials and coffee grounds are mentioned so often could indicate that they are aware of the discussions in the media and open to better solutions.

Considering these materials being most mentioned, these materials and products should have the first priority to find potential for upcycling.

Many micro-enterprises do not contract with a waste collector, even though they are legally obliged to do so. The reactions were that self-disposal is much easier and cheaper.

The most frequently mentioned barriers to separation were "too little waste" and "costs". The above-mentioned thresholds for no longer separating waste, such as "not offered by waste collector" and "too little waste", but also "lack of knowledge" and "costs" were given in almost equal percentages by micro and by 10+ SMEs. The difference is that "lack of knowledge" is more important for micro-enterprises, where "cost" is more important for more than 10+ SMEs.

The most frequently mentioned motives for waste separation are sustainability, representativeness and company policy (together more than 60%) and cost savings. Drivers mentioned less frequently are "the law", "cost savings" and "containers full too quickly". The current motives differ somewhat from the most frequently mentioned motives for separating more waste. The difference is that cost saving is a much more important driver for future separation than in the current situation. This can mean that companies feel an increasing responsibility, the moral obligation to contribute to improving the environment by separating more waste streams and having them reused, recycled or upcycled.

The top 3 answers about what kind of help the interviewees needed were "a company that picks up", "space" and "information/knowledge". The aid should be provided by waste collectors and municipalities. Micro-enterprises also cited industry associations to provide help.

It seems logical that waste collectors are seen as first responders (mandated by law). On the other hand, the mentioned barriers to more separation such as, "not offered", "too small amount" and "cost", are the kind of answers that a waste collector could have given for not going/can/want to separate anymore. That is why municipalities are mentioned as care providers in probably almost equal percentages. It could also indicate that the help expected from waste collectors is not being given and that this help is expected from the municipalities.

The fact that this answer has been given may also indicate that SMEs lack knowledge (about waste legislation). Municipalities have no legal obligation to assist companies with their waste problems. This is the task of the regional licensing and enforcement authorities.

### **7.3. Impression of the interviewees**

About 60 to 70% of the interviewed companies wanted to be kept informed about the project, and about half wanted to receive a newsletter.



# 8. Conclusions and recommendations

## 8.1. Conclusions

Many flows have already been separated and are collected separately. In view of the given list of also smaller waste streams, companies know reasonably well which waste streams they have.

There are many small waste streams. The companies feel that they have too little space to separate, and they also indicate that they lack the knowledge to improve this. Any costs are also experienced as an obstacle to wanting to divorce.

Based on the given motives “company policy”, “corporate social responsibility” (mentioned in approximately 60% of the answers), SMEs consider it important to deal with waste in an environmentally responsible manner. These aspects also play an important role as a driver for future improvements. “costs” are also mentioned as an important driver for improving waste separation. This is notable because they are also mentioned as a barrier to the separation of waste.

The average company only sees waste. Because no waste is referred to as 'products' in the waste streams (except for pallets), it can be concluded that many entrepreneurs cannot distinguish waste from valuable raw materials/products. They lack the time to delve into the matter or to gather information about reuse/saving and earning possibilities of waste and sometimes also waste.

Help is especially needed with separating and storing more waste streams, making/making more space available or providing information about waste, waste separation and processing. Especially for 10+ SMEs, it is also indicated that financial aid is welcome. Help should mainly be given by the waste collector and the municipality. Micro-companies also cite "branch association" as an aid worker.

The waste collector/processor plays an important role. Entrepreneurs know which flows they have. Smaller flows are not collected separately and processed by the waste processor. At the same time, the waste collector is seen as an important player in improving waste management. They expect advice and an offer from them to improve the processing of waste streams.

Although the municipality has no legal role in the waste management of companies, it is nevertheless mentioned as a counselor and notifier. There is clear support for the UyW project, of which these interviews are part. This is also apparent from the fact that the majority of the entrepreneurs surveyed like to be kept informed of progress and outcomes.

## 8.2. Recommendations

Entrepreneurs seem to lack the time and knowledge to independently improve their separation rate and waste management. The obstacles identified can probably be solved adequately with specific background knowledge and support. Help from waste processors seems to be available as far as the processing of large-scale waste flows for which existing

infrastructure are available. Specific wishes are difficult to fulfill by them because of commercial reasons. Small, separable waste streams seem to be disposed of with the residual waste.

The interviewees seem to have insight into the waste flows, as does the will to separate further. The question is also there, but there is a lack of insight, knowledge and help to carry out this adequately, such as the knowledge of specific processors or having it collected collectively.

The UyW project focuses on providing knowledge about waste, waste legislation and approaching waste as a raw material, improving waste separation, reuse and possibly upcycling. Through the project, specific requests for help from entrepreneurs can be identified and addressed. The waste flow analysis can be used to specifically define the possibilities for saving waste flows, improving separation and possibly developing joint processing options.

# Appendices

## Appendix A : Questionnaire on barriers & drivers

1. What is your position/function?
2. What is the size of your company (FTE)?
3. What type of business is your company?
4. Do you separate any waste/discarded products being separated for recycling/reuse (also for internal reuse, or back to the supplier)?
  - a. Yes: What types of waste?
  - b. and why do you separate it?
  - c. No: why not?
5. In your opinion, do you see more possibilities for separating more waste streams/discarded products? Which ones?
  - a. Yes: If more could be separated/reused, why is that not being done?
6. What would be reasons for you/your company to separate/reuse more waste streams/discarded products?
7. What do you/your company need to separate more waste streams/discarded products? And who should provide this help?
8. Do you have any questions, is everything clear?
9. Do you have any questions, comments or additions?
10. May we keep you informed about the results of the survey and the progress of the project?

