

DEPARTMENT OF POLITICAL SCIENCE CENTRE FOR EUROPEAN STUDIES (CES)

# CHANGING FASHION, LASTING WASTE

How local textile waste management is impacted by EU legislation.

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Master's thesis: Programme: Level: Semester year: Supervisor: 30 credits

Master's Programme in European Studies Second Cycle Spring 2021 Urban Strandberg

## Abstract

This thesis studies how the division of responsibilities between local actors are impacted by the 2018 EU waste directive amendment. The amendment stipulates that specific separation and subsequent collection of textile waste should be undertaken by the Member states to combat the increased levels of textile waste, as one measure in the EU's goal to promote a more circular economy. Previously, textile waste has mainly been handled and collected by non-state actors. The waste directive amendment thus begs the question: How do EU legislation impact local textile recycling management? By using the theory of Multi-level governance, textile waste legislation and management is analysed, to gain insights on how EU, national, and local requirements have impacted the division of responsibilities in local textile waste management. Three concepts derived from the theory is operationalized using a coding frame built on qualitative content analysis, which is applied to empirical data from both document analysis and semi-structured respondent interviews. The thesis shows little to no impact upon local textile recycling management caused by EU legislation. But this thesis does showcase difficulties that can arise during implementation, and advances new questions related to textile waste management.

Master's thesis:	30 credits
Programme:	Master's Programme in European Studies
Level:	Second Cycle
Semester year:	Spring 2021
Supervisor:	Urban Strandberg Multi-level governance, textile waste, local waste management,
Keyword:	division of responsibilities, municipalities
Word count:	19 608

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## List of abbreviations

CF	Circular fashion
EPR	Extended producer responsibility
MLG	Multi-level governance
MS	Member states of the European Union
VA	Vatten och Avfall (Water and waste)
QCA	Qualitative content analysis

## 1. Introduction

Recent years have shown increased efforts from the EU to tackle environmental issues. This can be exemplified by the introduction of the European Green Deal, an agenda for sustainable growth (COM, 2019). The Green Deal, in short, provides the member states (MS) with a roadmap that aims to make the economy sustainable, and climate neutral by 2050, while supporting a just and inclusive transition. One of the main building blocks is the new circular economy action plan, which entails actions aimed at, for example, product design, sustainable consumption, and waste prevention (COM, 2020). In 2015 the EU introduced the predecessor to this action plan, which included measures aimed at stimulating the transition towards a circular economy (COM, n.d, a). In both action plans, and within the Green Deal, textiles have been identified and highlighted as a priority product. Not solely due to the production process, as it is the fourth highest-pressure category in the EU for the use of primary raw materials and water, and fifth largest source of greenhouse gas emissions linked to private consumption. But also, due to the ensuing waste stemming from discarding said textiles (COM, n.d, b, European Environment Agency, 2019).

Therefore, the EU has dedicated specific efforts and introduced measures that aims to tackle both textile production and textile waste. In line with this, the Waste Framework Directive 2008/98 was amended with Directive (EU) 2018/851 of the European Parliament and of the Council of 30 May 2018 (European Parliament and The Council of the European Union, 2018). Which now obligates member states to collect textiles separately by 2025. Being a framework directive, and considering the subsidiarity principle, no clear waste management practice is communicated to the MS, who inherently holds the responsibility for waste management. Currently, textile waste management differs between member states and municipalities, with non-state actors often taking responsibility for collecting textiles separately in many countries. Hypothetically, the new obligation stemming from the EU directive will impact the previously established division of responsibilities in local textile waste management. Thus, this begs the question: *How does EU legislation impact local textile waste management*?

## 1.1 Research aim and questions

The aim of this study is to analyse how local actors are impacted by EU legislation during the time and process of implementation. More specifically, I will analyse how the division of responsibilities between municipalities and non-state actors in local textile waste management are affected by the amendment to the Waste Framework Directive. This will be done by constructing and using a Multi-level governance (MLG) framework.<sup>1</sup> The framework will be applied to both distinguish relationships vertically and horizontally, and to analyse the data. The overarching question '*How does EU legislation impact local textile waste management?*' will be answered using the following sub-questions.

- How does the EU directive, regarding textile waste, dictate divisions of responsibility within the Members states?

- What goals are the Swedish government working towards regarding textile waste? And is the goal setting influenced by EU legislation/directives?

- How are Swedish municipalities currently handling their textile waste, are they to undertake a management change due to the new directive?

- What role do non-state actors play in the municipalities' textile waste management?

<sup>&</sup>lt;sup>1</sup> Which will be outlined in section 3.2 Multi-level governance

- Has the waste directive amendment affected the type of relationship between the local actors engaged in textile waste management??

## 1.2 Outline

Firstly, an introduction to the subject will be given through background and previous research, which serves to underline the research gap this thesis aims to tackle. A description of the theoretical framework, with a focus on multi-level governance, will follow. Secondly, the design, method, and material will be presented, beginning with a motivation of the local level and the included municipalities. Followed by a description of the method, qualitative content analysis, and deliberations made in choosing data sources and interviewees. Thirdly, the results will be presented, tailed by a conclusion which further discusses the sub-questions posed in section 1.1. The thesis will finish by discussing recommendations for future research.

## 2. Background and previous research

Generated all over the world, waste has proven to be a well-studied area. The focus of studies ranges from specific waste treatment (e.g., Winternitz et al., 2019), municipal waste management (e.g., Berg et al., 2018), to consumer behaviour (e.g., Weber et al., 2017). To provide a deeper understanding of the issues that are prevalent within EU waste management, and then subsequently what needs to be understood when discussing textile waste management, this section will begin with an overview of research discussing general waste management related to the EU waste directive. Secondly, research specifically aimed towards textiles and textile waste. Meaning, a brief discussion on the environmental impact, collection, and the role of consumers and producers. And lastly, a summary that further highlights the research gap that is to be addressed within this thesis will be provided.

## 2.1 General waste management.

Contemporary research touching upon waste management within the EU is primarily concerned with changes in waste management caused by EU directives (articles focusing on this may be exemplified by Berg et al., 2018, Panaretou et al., 2017, Przydatek, 2020). Increased quantities of waste collected compared with quantities prevalent before the implementation are often highlighted. However, it is important to note that despite there being an increase in quantities, the researchers oftentimes do not automatically draw the conclusions that the changes were neither successful nor satisfactory (especially highlighted by e.g., Przydatek, 2020, Berg et al., 2018). Meaning, they identified room for improvements. Furthermore, a consensus can be found; to increase the efficiency of waste management this must be complemented with capacity building. Capacity building in terms of, for example, knowledge.

Following this argument, Triguero et al. (2016) highlight that government-based programs have previously not been enough for solving the (general) waste problem, and that a combination of government and market instruments could improve the regulatory framework to minimize waste in the EU. Also, the importance of including proactive and preventive approaches to enhance the responsibility and engagement of all stakeholders. Meaning, a need to understand how political, social, and cultural relations impact and shape municipal waste programs (Triguero et al., 2016, Bulkeley et al., 2005). To summarize, a preference for a holistic approach to general waste management can be identified, one that focuses on and involves multiple actors and methods. Furthermore, a great focus on evaluating results and methods seems prevalent within the research discussed, with a lesser focus on the interplay between actors, and how this can affect collection rates.

## 2.2 Textile consumption and waste.

Within the EU, clothing purchases have increased by approximately 40% in just a few decades, and it was estimated that in 2015 EU citizens bought 12.66 kg of new clothing per person (i.e., 6.4 million tonnes in total). Most commonly, the production process is placed outside of the EU, often in multinational retail chains. Clothes are often mass-produced, usually using lower-quality materials, resulting in low prices for consumers. Dubbed "fast fashion", this also entails an increase in the average number of collections released by clothing companies each year (from two in 2000 to five in 2011, with some companies even offering as many as 24 collections per year). Leading consumers to both buying more, and seeing clothing as perishables, and discarding the items after only seven or eight uses. This also results in approximately 30% of the clothing kept in the wardrobes of European citizens not having been used for at least a year (Šajn, 2019, p. 1-3).

## 2.3 Environmental impact

Currently, the clothing and textile business accounts for 2-10% of the environmental impact of EU consumption. However, the exact estimation of the environmental impact is hard to distinguish, due to diversity within the sector, and the global scale of the production (Šajn, 2019, p. 1-3). Furthermore, the

environmental impact is often felt in the countries wherein the production takes place, as this entails enormous amounts of water and chemicals (for example used during dying or growing the raw material). Transport and distribution also account for some of the impacts, with long delivery routes, and waste generated through, for example, packaging and tagging of the garments. Some of the products do not even reach the consumers, resulting in unsold garments being disposed of. Usage of said textiles also causes a large environmental impact, for example created during tumble drying and washing. Once discarded, it is difficult to generate reliable and recent data on what happens to the clothing, as most items are seemingly thrown away, ending up in incinerators or landfills. Some numbers estimate that only between 15-20% of the items are collected for reuse or recycling (in 2005), while some studies point towards a recycling rate of only 25% of textiles within the EU (Naturvårdsverket, 2020). Furthermore, within the EU, large disparities are prevalent, with Italy collecting approximately 11% in 2015, and Germany 70% in 2011 (Šajn, 2019, p. 3-5).

### 2.4 Collection and aftermath

The practical collection entails a plethora of options. Currently, the most common collection method is to place textiles in garbage bags or recycling bins, which is also considered to be inefficient. Specifically, since it does not realize a complete collection. To understand how this can be increased, Hole and Hole (2020) identified and evaluated regulations and measures which can be applied to textile recycling based on lessons from other recyclable materials. For example, they identified door-to-door recycling as a possible solution, but also considered it to be time-consuming, expensive, and disadvantageous as it does not reach all homes. But, despite having identified some challenges facing textile recycling, they saw possibilities of implementing similar legislation and policies applied to other recyclable materials (e.g., paper and glass). For example, rewards and tax relief, and separate textile waste collection. The potential of the separate collection identified by Hole and Hole (2020) makes it further interesting to study the undergoing implementation of the amendment, as this will provide insights into how this is undertaken.

The Ministry of Food and Environment of Denmark, when examining six European countries' work with collecting textiles and the subsequent results, shows that in most of the chosen countries municipalities have the responsibility of collecting textile waste. However, this does not always entail management that completely relies upon municipal actors, but also involves non-state actors such as charities (The Ministry of Food and Environment of Denmark, 2020). In line with this, Kant Hvass (2014, p. 425) shines further light on the role of other actors prevalent within the sector. Mainly by highlighting, in a study concerning companies taking responsibility for their end-of-life products, that actors such as charities or private actors are often involved in the organization of collecting textiles. Mainly due to companies having limited knowledge and experience, and therefore seek out actors that hold these attributes. Therefore, there seem to be consensus that textile waste initiatives are currently often organized nationally and carried out by organizations (e.g., brands or charities) (Jacometti, 2019). But scientific focus upon non-state actors, and their relationships with municipalities, seems to be deficient. This is further underlined by Ki et al. (2020, p. 2408), who discuss that studies on circular fashion (CF)<sup>2</sup> often focus upon internal stakeholders (e.g., governments and subcontractors).

As previously discussed, after collection most textile waste is currently incinerated or ends up in landfills. Both methods entail environmental hazards, out of which incineration has been branded the more environmentally friendly option (Yacout and Hassouna, 2016). But, recycling and specifically re-use has an even greater potential to reduce the environmental impact and thus is the most desirable choice (Dahlbo et al., 2017). Currently, potential to increase re-use and recycling of textiles exists. For example, in 2016 in Sweden, 60% of textiles found in discarded residual waste could be reused (SMED, 2016, p. 5). But both routes entail specific issues that also need to be mentioned. Firstly,

<sup>&</sup>lt;sup>2</sup> Circular fashion is described by Ki et al (2020, p. 2402) as circular economy for the fashion industry.

a large share of re-use items is exported to African or East Asian countries, creating challenges to the local communities that receive these products. However, important to note is that these markets are currently considering banning imports, meaning that the markets for re-use products are shrinking, which could create future problems for textile waste (Bukhari et al., 2018, p. 326-327). Secondly, recycling is also facing difficulties, mainly due to a lack of technologies for sorting and separating the fibers. Leal Filho et al. (2019) emphasize that there currently is no best-technique for recycling textiles, while Kant Hvass (2014) showed that no best practices and no established patterns have been distinguished within the textile industry. This due to the composition of textiles and clothing, which is often complex, creating a need for research and innovation to process textiles correctly. Furthermore, sorting and recycling of textiles are presently expensive, and inefficient (Bukhari et al., 2018, p. 327). This results in only "[...] less than one percent of all materials that are used in clothing is recycled back into clothing" (Šajn, 2019, p. 5). Thus, to combat the environmental impact of textile waste, a recent emphasis on making technical advances for recycling can be distinguished (Ki et al., 2020, p. 2421).

## 2.5 The role of consumers in textile waste

In efforts to understand, and tackle, the environmental impact of textiles, emphasis in research is often placed on consumers. Primarily since social norms and values in mainstream society have been identified as having a significant impact on behaviour, especially regarding sustainable practices (discussed by e.g., Boström and Micheletti, 2016, p. 367-368). And, therefore, education and knowledge of said consumers can diminish the impact of the items after they have left the market. Measures undertaken in line with this entails, for example, providing consumers with better washing and drying instructions, raising awareness (to enable consumers to make more sustainable choices), increasing transparency, and environmental labelling (Sajn, 2019, p. 7). But solely undertaking information-based policy instruments has shown to be inefficient and must be combined with other policies. And, it has been suggested that "[...] too much hope and responsibility, at least at present, being placed on individual consumers and families." (Boström and Micheletti, 2016, p. 371). Furthermore, researchers have identified a lack of infrastructures and mechanisms as a possible deterrent for individuals to engage in pro-environmental behaviour (Punzo et al., 2019, p. 320). Policy intervention should, therefore, according to Mont and Power (2010a, 2010b) take place on a societal level, otherwise it will be insufficient for societal change. Combined, this further points towards a need to understand what is done on said level.

## 2.6 Producer responsibility?

As stated previously, attention has been largely focused on consumers and their behavior, concerning sustainability and environmentally friendly practices. However, a shift (both scholarly and policy-wise) towards producer responsibility can be noted and is increasingly gaining more attention (Kant Hvass, 2014, p. 415). For example, France introduced an extended producer responsibility (EPR) policy for end-of-use clothing, linen, and shoes in 2006. To summarize, an EPR scheme entails that the producers of the products are responsible for the collection, treatment, and recycling (i.e., disposal) of their end-of-life products. This can be physically and/or economically. Previously, EPR schemes have been introduced for certain products within the EU, such as batteries and vehicles, and MS can (in line with the EU directives) extend the use of EPR to other streams of waste (explained by e.g., Kant Hvass, 2014, p. 416).

Bukhari et al. (2018) describe and evaluate the scheme undertaken in France. Describing, by pinpointing the actors active in textile waste recovery, and identifying how textiles are collected and recycled. Evaluating, by discussing if the EPR scheme improved collection and recycling, while also identifying the barriers and challenges that hinder circular economy within the textile industry. To summarize, actors are identified as all legal entities presenting new textiles and clothing in the French market (i.e., textiles and clothing manufacturers, importers, and distributors). These actors tackle this responsibility in one of two ways: by financially contributing to an accredited organization, or by setting up individual take-back programs (approved by the French authorities). Currently, only one organization

exists, which includes 29 associates, who oversee the EPR policy and collect financial contributions from its members. This is then used to, for example, fund knowledge enhancing measures, connections between stakeholders, and research and developments. The practical collection under the EPR scheme is undertaken in a plethora of ways, of which the organization mainly monitors the channels in which sorting, and recycling, are required, which includes for example charities. Bukhari et al. (2018, p. 328-329) conclude by stating that collection in France has increased, and this *may* be credited to the EPR scheme. It could also lead to financially supporting innovation and research, ultimately diverting postconsumer textiles from landfills.

However, over the years EPR schemes have gained some scholarly criticism. For example, Dubois (2012, p. 42) states that EPR schemes reduces incentives for waste prevention and green product design. This could be due to inflexible, static, targets, which do not stimulate continuous improvements due to small financial incentives. And, Bukhari et al. (2018, p. 329) also recognize that the article does not "[...] assess the efficiency of the EPR policy implementation in France". Neither does it focus on its implementation consequences for other, specific, actors.

#### 2.7 The research gap

To tackle the aforementioned issues, suggestions to develop for example 'slow fashion' (convincing consumers to buy fewer clothes of better quality or keep them longer) and increasing fashion as a service has been discussed. In the last few years, the EU has aimed specific attention towards textiles, now considered a priority product. For example, the textile regulation of 2011 established rules for labelling and marking of all textile products, the landfill directive requires MS to reduce the share of municipal waste landfilled to 10% by 2035, and the packaging waste directive introduced targets for recycling of packages. Textiles are also encompassed by European standards, related to minimum performance requirements for certain types, and a voluntary certification programme in the EU ecolabel for clothing and textiles. Furthermore, a need for improved collection and recycling have been identified. In line with this, the circular economy package was adopted in 2018, which requires MS to collect textiles separately, which is stipulated within the new Waste directive (Šajn, 2019, p. 5-7).

When MS are to assume the responsibility for the collection, this then poses the question of how this will be undertaken. But also, of who will be responsible for the collection. Previous research paints a broad picture where, for example, consumers, organizations, companies, management practices, and policies are all important to increase the volume of both general waste and textile waste. Despite the increased attention towards the actors involved, there seems to be a lack of research elaborating on the division of responsibilities on the local level regarding textile waste management. And, furthermore, the relationships that constitute the field today. Primarily, the relationship between the ones who are currently to undertake the collection of textiles within the EU (i.e., municipalities), and the actors who previously has undertaken a collection of textiles (e.g., voluntary organizations or charities, here encompassed by the term non-state actors, to capture all kinds of actors undertaking textile collection). This is further emphasized by Ki et al. (2020, p. 2407), in a discussion surrounding CF research, where they state that the majority of research undertaken on CF is directed towards the pre-consumption phase. Moreover, that "[...] research that can tackle how to encourage recycling agents, consumers, and government to make a circular post-consumption behaviour, so that internal fashion stakeholders can reuse the returned materials again seems important and much needed" (Ki et al., 2020, p. 2407).

Therefore, aiming further attention to the division of responsibility, if and how collaboration and cooperation are undertaken, and how relationships within the field are impacted because of the new amendment, is motivated. And to not continue to place the discussion on evaluating results, albeit important, but to instead understand the interplay between actors. Not solely since this topic is seemingly under-researched by scholars' while being an important and contemporary question. But also, since increased knowledge of how responsibilities are divided can enhance understanding of how responsibilities could be divided. Which might in turn lead to more efficient textile waste collection and management in the future.

## 3. Theoretical framework

## 3.1 Implementation

Since the aim of this study is to analyse how local actors are impacted by EU legislation during the time and process of implementation, an inherent need to understand how to approach and conduct implementation research appears. Previously in implementation studies, a great deal of focus has been given to outcomes, or outputs, as this is a tangible way of understanding if the changes made reached the desired target (as stated in section 2.1). But, researching implementation does not necessarily have to be undertaken with the intent of finding 'blame', different implementers achieve different outcomes: and there are variations between these outcomes that need to be explained (Hupe et al., 2014, p. 160). "We should be satisfied (although not content) for the moment to understand – to explain without necessarily predicting – implementation " (Deleon, 1999, p. 329). Furthermore, diversity in performance of the task (implementation) is an important source of knowledge on how to do it better (Elmore, 1979, p. 607). Thus, rather than looking at the means and ends of a public policy, looking at 'what happens' rather than 'what should happen' is motivated (Hupe, 2014, p. 177-178). This can be understood by making "cuts" along the policy process, to highlight what is going on when a policy is being implemented (Hupe et al., 2014, p. 161). Understanding changes in the relationships between actors, and the division of responsibility, by making a 'cut' in the policy process is thus deemed feasible.

## 3.2 Multi-level governance

One way of approaching the overarching question is to venture out from an already established theory that enables analysis of various levels of society. Multi-level governance (MLG) established by Hooghe and Marks, seems particularly suitable. It emerged as a theory to understand decision-making dynamics in the European Union, wherein Marks questioned the then prevalent dichotomy between intergovernmentalism and neo-functionalism (which will not be further elaborated in this thesis, but worth mentioning) in EU studies in political science (Piattoni, 2010, p. 18-19). But has since been developed and employed as, for example, a framework especially used in studies concerning the inner workings of the EU. It still maintains a broad appeal, despite being contested and debated in the last decades. Perhaps, due to it being employed by a plethora of researchers investigating different issues (detailed description of this is provided by e.g., Stephenson, 2013, Tortola, 2017). Or perhaps, due to its focus on understanding the complexities that lie beyond the formal distribution of responsibilities, or perhaps since it has made its way from the vocabulary of academics and scientists to the ones of politicians (Bache, 2004, p. 4-5).

Simply put, "Multi-level governance raises questions about the role of non-state actors and highlights variations in different patterns of participation and influence in different cases that statecentric approaches may well overlook" (Bache, 2004, p. 203). In EU studies, the theory provides an understanding of how the EU works, its governance structure, and less why it is and how it came to be (Stephenson, 2013, p. 818). Or, as Piattoni (2010, p. 90) puts it: "The relevance of territorial institutions is one of the limits but also one of the characteristic traits of MLG theorization: if forces us to answer the difficult question of which territorial structures are activated and transformed and to look at the ways in which they resist or allow such transformation". To summarize, the theory is focused on the role of not merely political actors and/or institutions, but also of non-state actors and their participation and influence. Since the aim of the thesis is to analyse the division of responsibilities between municipalities and non-state actors in local textile waste recycling management, the theory seems highly suitable. Especially since it enables a further understanding of the different levels and actors that partake in the process.

Tortola (2017) provides an especially useful discussion regarding the theory to both clarify and operationalize it. According to the author, it can be boiled down to two types of theories: MLG as a theory of state transformation, and MLG as a theory of (EU) public policy. The former,

focusing on "[...] the fading away of the Westphalian international system [...]" (ibid, p. 244), replacing it with a more fluid political order. The latter, however, aims at explaining the making and implementation of public policy, which is a "[...] less radical and more concrete variant of MLG theory" (ibid, p. 245), where the question of how MLG systems functions day to day is centre of the discussion. It also aims to specify the systematic links between the vertical and horizontal dimensions of power diffusion (which will be further elaborated on in the next paragraph) (Tortola, 2017, p. 246). This version of MLG, more empirically restricted to first and foremost the EU, goes beyond the institutional structures to investigate informal relations and politics, which encompasses non-state actors and their role in the making and implementation of public policies. Focusing on the latter theory posited by Tortola (2017) seems the most accurate for this thesis. Not solely due to the arguments put forward by the author, but also since other researchers often have employed this specific understanding of vertical and horizontal relationships between actors (described by e.g., Stephenson, 2013).

The vertical dimension examines the local governments' relations with higher levels of government, such as national and European institutions. It involves questions regarding centre and periphery, domestic and international (Zapata-Barrero et al., 2017, p. 243-244). It allows for pondering upon questions such as what role the European institutions and policies play, regarding implications on local governance. The horizontal dimension instead corresponds to the interactions between state and society, which includes the relationships between local governments, society, and non-state actors. The key question it aims at investigating lies in how local governments respond to challenges in their diverse societies (Zapata-Barrero et al., 2017, p. 243). Or, in other words, MLG allows us to consider how jurisdictions interact with each other, and involves both formal and informal institutions and relationships (Bache, 2004, p. 5).

Furthermore, two types of MLG (type I and type II) have been presented, aiming to describe the relationships existent within an MLG system (Hooghe & Marks in Bache, 2004, p. 19-23, 27-28). The types work to frame basic political choices and embody contrasting visions of collective decision-making. Important to note is that they often co-exist and are not interchangeable. To understand the relationships and division of responsibilities between local textile actors, I chose to use and conceptualize Type I and Type II as different categorizations to be able to identify changes undertaken within the municipalities, and if/how the division of responsibility differs between municipalities. This thus serves to understand how the EU legislation impact the local level.

Type I have a similar structure as conventional federal systems, meaning a stable division of labour across a limited number of governments. This is often recognized as the mode of national politics. Type I is durable ('staying power'), and change is conducted by reallocating policy functions across levels of governance, with other actors seen as supplementary to the primary structure, creating a complex geography. Conflicts are usually highly structured and articulated, with rules being decided consciously, collectively, and comprehensively. General-purpose jurisdictions, with non-intersecting memberships, are usually created in Type I systems, which is then sustained by a class of professional politicians who mediate citizen preferences into law (Hooghe & Marks in Bache, 2004, p. 19-23, 27-28). For this thesis, this entails that the municipality manages the separate collection of textiles, while non-state actors are viewed as supplementary. Any outspoken collaboration between actors is encompassed by formal arrangements, with clear divisions of responsibility, which indicates a stable hierarchy.

Type II, however, often appears 'anarchical' compared to type I, with fluctuating structures designed to be flexible, often containing overlapping memberships in single-purpose jurisdictions. Meaning, it operates on numerous scales and is often task specific. However, it is often situated within Type I legal frameworks. Compared to Type I, Type II also more commonly have private-public partnerships, thus constituting a wide range of actors that collaborate and compete, in shifting coalitions, with no dominant class or actors. This type of arrangement is often found at the local level, with a focus on problem-solving, tailored memberships, rules of operation and functions to a

specific policy problem (Hooghe & Marks in Bache, 2004, p. 20-22, 24-29). For this thesis, this entails that management is undertaken as cooperation between municipalities and non-state actors. However, this does not exclude that the municipalities manage textile waste, but that the responsibilities are divided amongst different actors as well, who are seen as vital for the municipalities. This could involve or give the possibility to use more informal relationships. Thus, creating a milieu characterized by interdependency, or even independence, which indicates a non-hierarchical relationship between actors.

Having identified distinct types of MLG, some consistent concepts between them can be distinguished. More specifically, an emphasis is put upon hierarchy (or, non-hierarchical for type II), on formal/informal arrangements, and division of responsibility (meaning, does the municipality handle most of the management, or share with other actors). By using the two types of MLG, this allows for identification of the relationships on the local level, which in turn serves to understand the division of responsibilities and the impact of the amendment. And thus, can guide the understanding of the data. Furthermore, a need to understand the vertical and horizontal dimensions is apparent within MLG. Understanding these dimensions aids in understanding the context and the relationships between the actors. These dimensions, together with the concepts hierarchy, formal/informal arrangements, and division of responsibilities, will be operationalized in a coding frame, which will subsequently be applied to the data (see Appendix 1).<sup>3</sup>

It must be noted that in practice, these different concepts might exist within the same milieu. For example, there can be formal and informal arrangements simultaneously. But a theoretical understanding of the concepts allows for increased knowledge of how local textile waste actors are situated in different municipalities. And how/if the type of relationships and division of responsibilities have been impacted by the EU legislation. Practically, this will be done by identifying the type of relationships prevalent within the municipalities, prior to and after the amendment. This will then be used for comparisons within and between the municipalities.

<sup>&</sup>lt;sup>3</sup> A further explanation on how the coding frame is built will be provided in the section 4.2 *Qualitative content analysis* 

## 4. Design, method, and material

In the thesis, the theory of multi-level governance serves as the theoretical framework, as it aims to guide both the collection and analysis of the data. When approaching the question, one must ask: what does one have to know and what does one want to understand? For this thesis this entails knowing what the directive stipulates, how this is incorporated into Swedish legislation, and if/how municipalities are changing previously established management.<sup>4</sup> In MLG terms, insights into the two former parts primarily highlights the vertical dimension, while the latter gives insights into the horizontal dimension. Furthermore, to gain a more comprehensive understanding of the overarching research question (*How does EU legislation impact local textile waste management?*) a two-party study where both document analysis and interviews will be used.

The document analysis serves to identify the factual and objective impact of the amendment, and to highlight practical changes expressed through documents stemming from the EU, the state, and the municipalities. The data provided by the documents will be supplemented with interviews. More specifically, respondent interviews, which aim to provide insight into the ideas, experiences, and views of those working in and with local actors. Contrasting the information given by the documents with the responses given in the interviews, allows for a greater understanding of the meaning of the changes, how these are perceived, and what impact the changes have on practical management. Thus, using two data sources (i.e., documents and interviews) provides a comprehensive and detailed understanding of the division of responsibilities, in the efforts to answer the overarching research question. The data will be analysed using the concepts identified previously (hierarchy, formal/informal arrangements, and division of responsibilities) which is operationalized using a coding frame, built using qualitative content analysis. Therefore, a more thorough description of qualitative content analysis will be provided (and validity and reliability concerning the method), followed by the deliberations made when choosing documents and respondents. But first, a motivation for the chosen municipalities will be provided.

## 4.1 Why focusing on the local level and how to choose municipalities?

Since the research aim is to analyse how local actors are impacted by EU legislation, the most crucial deliberation rests upon what local level to aim focus towards, tailed by which local actors should be incorporated. Firstly, what local level this entails is seemingly easy to motivate. Waste management is inherently undertaken by municipalities, and thus the local level of interest lies on the municipal level. Secondly, which municipalities to choose is a more pressing issue. Primarily, since all local societies have their own characteristics, with unique problems, making it harder to both generalize the findings and to draw any substantive conclusions.

However, one characteristic of relevance is the size of the municipality, as size tends to bring similarities in challenges posed to the societies. For example, we can expect larger cities to have a larger amount of waste than smaller ones, and subsequently similar problems with similarly developed waste management systems. Meaning, it is not of interest to compare, for example, rural vs urban municipalities, as these types of municipalities already face different challenges, implying that management will also differ. Comparing municipalities with comparable size characteristics will provide more thorough insights into how management can differ. And, by choosing municipalities of a certain size, the results can then be relevant for other European municipalities of similar size. Making the results somewhat generalizable, both for future research and for society.

Furthermore, since the purpose of the thesis is to analyse the local level, there is an inherent need to keep the vertical dimension constant. Meaning, the municipalities chosen must be situated within the same state, to minimize variances between the municipalities. Sweden is chosen for

<sup>&</sup>lt;sup>4</sup> This refers to the sub-questions posed in section 1.2 *Research aim and questions*.

a pragmatic reason, as this removes the obstacle of a language barrier between the researcher and the data. Furthermore, since the aim was to understand the changes undertaken, this entails a state where pre-existing relationships between actors are prevalent. Meaning, a state in which collection of textiles previously have been undertaken, or data of collected textiles has been kept. Only a few MS have previously reported on collection quantities (since they have defined collection of used textiles as waste collection), Sweden being one of them. When comparing Sweden with other MS, who has previously collected textiles, this also suggests that Sweden has potential to increase collection. For example, when comparing data from 2013, Germany collected 12 kg/capita while Sweden collected 2.4 kg/capita (Dubois et al., 2020, p. 76). This indicates that changes might be undertaken to increase collection, to align with the new amendment, making Sweden a motivated choice.

Malmö, Gothenburg, and Stockholm are the most eligible choices. Motivated not only by characteristics, as these municipalities hold the largest cities in Sweden and are the only municipalities classified as 'big cities' (*storstäder*). Therefore, by using these three the results would be comparable to municipalities with a minimum of 200 000 inhabitants, out of which at least 200 000 are living within the largest city (which is the definition of *storstäder*) (Gillingsjö, 2016, p. 12). But also based on the vertical relationship, since all three have permanent representation in Brussels (albeit Stockholm is represented as a region), which indicates a strong relationship with the EU institutions.

Malmö municipality, located in the southern parts of Sweden in Scania County, with approximately 348 000 inhabitants (SCB, n.d). Currently, since the last election 2018, Malmö municipality is governed by Social Democrats and Liberals. The task of managing waste lies upon *Miljöförvaltningen* (the environmental board). For example, the municipality manages, through VA SYD, residual waste/municipal waste, and collection of the same. VA SYD is a VA<sup>5</sup> municipal association co-owned by multiple municipalities in the Scania region, including Malmö. Furthermore, Sysav, a publicly owned limited company, oversees the manned recycling centres and handles residualand food waste that is collected by VA SYD. Currently, 45.98 % of Sysav is owned by Malmö. According to Sysav, textile is to be sorted into bulky waste or can be left to voluntary organizations that are stationed within the recycling centres (the municipality mentions Myrorna, Emmaus Björkå, Emmaus Fredriksdal, Human Brigde, and Lions) (Malmö stad, 2021).

Gothenburg municipality, located in western Sweden in Västra Götaland County, with approximately 580 000 inhabitants (SCB, n.d). The municipality is currently governed by the Moderates, Liberals, Center Party, and the Christian Democrats. The responsibility of waste management is placed on *Kretslopp och Vatten* (circulation and water) board, which ensures that the residual waste is taken care of, is re-used, and recycled in an efficient and environmentally friendly way (Göteborgs stad, n.d, a). The everyday collection of waste is outsourced to Renova and Nordisk Återvinning Service AB, who in turn have the option to hire other actors. *Kretslopp och vatten* states that textiles are to be sorted as 'second hand', which could be handed to either stores or to the recycling centers, where they state that different voluntary organizations have their containers (not stated who) (Göteborgs stad, n.d, b). In turn, Renova categorizes textiles as combustible waste, while Nordisk Återvinning Service AB does not mention this, but refers to the sorting guide made by *Kretslopp och vatten* (Renova, n.d, Nordisk Återvinning Service AB, n.d).

Stockholm municipality, located in east-central Sweden in Stockholm county, with approximately 975 000 inhabitants (SCB, n.d), making it the largest municipality in Sweden. Currently, after the last election, the municipality is governed by the Moderates, the Liberals, the Green Party, the Center Party, and the Christian Democrats. Waste management is undertaken by *Stockholm Vatten och Avfall*, a company owned by Stockholms Stadshus AB. Some of their responsibilities involve collecting waste, and ownership of the recycling centres. Textiles are categorized as a re-use product, and *Stockholm Vatten och Avfall* directs citizens to hand their textiles in either the recycling centres, the

<sup>&</sup>lt;sup>5</sup> VA is short for *Vatten och avfall*, meaning water and waste.

bulky waste, a clothing box, recycling receptions, or PopUp-stations. Textiles that can be used again are taken care of procured re-use actors (not stated who) (Stockholm vatten och avfall, 2019).

#### 4.2 Qualitative content analysis

Qualitative content analysis (QCA) is chosen as the overarching method and will be used for both the document analysis and the interviews. Previously, content analysis was often undertaken quantitatively, but now "The process is viewed more generously as a method for describing and interpreting the written productions of a society or a social group" (Marshall, 2016, p. 314), and can be undertaken in a qualitative fashion (Boréus and Bergström, 2018, p. 50, Schreier, 2012, p. 13-14). The method aids in focusing on a specific aspect of the material and provides a way of working that is systematic and flexible enough to be used for analysing data from both sources (i.e., documents and interviews) (Schreier, 2012, p. 4-5).

When comparing with other methods, QCA also stands out as the most appropriate method. For example, using discourse analysis is not an option, as the main interest does not lie in dismantling or engaging in the use of language. And, conceptual coding, a method with similarities to QCA as it involves working with coding frames (used in e.g., grounded theory), is not considered suitable. Conceptual coding often focuses on how categories within the frame relate to each other and have often been employed to create theory or analyse various manifestations (Schreier, 2012, p. 41-43). Since the focus of this thesis lies on neither, nor analysing relationships between categories, the method is not appropriate.

QCA always (according to Schreier, 2012, p. 5-6) involves the same steps: deciding on a research question, selecting material, building a coding frame, dividing material into units of coding, and trying out the coding frame through double-coding. This is according to Schreier followed by a discussion of units that are coded differently, and an evaluation of the coding frame in the terms of validity, and subsequent revision of the coding frame. Finally, transforming the information to the case level, and interpreting and presenting the findings (a similar description is also provided by Titscher et al., 2000, p. 64). In QCA, before approaching any analysis of the data, the context of the situation in which the text originated is also deemed necessary<sup>6</sup> (Schreier, 2012, p. 5-6, 23, 30-31, Titscher et al., 2000, p. 63). This also serves to understand if differences in management are motivated by differences in context.

The practical construction of the coding frame in QCA is oftentimes tailored to the task, providing freedom and flexibility to adapt it to the material, with concepts originating from theory. Here, the concepts identified previously (hierarchy, formal/informal arrangements, and division of responsibilities) will be operationalized as categories using QCA. Since QCA stresses that categories should be sufficiently abstract to allow for comparison between data, but concrete enough to preserve as many specifics as possible, these concepts are deemed appropriate. Deciding what concepts mean beforehand aids in interpretation, as this removes the acknowledgement of different interpretations altogether (often a commonality in qualitative studies). However, the simplicity of this comes at a 'cost' of losing potential multiplicity of meaning. Therefore, acknowledgement of the part the researcher plays (the reflexivity) in creating the coding frame must be emphasized, as this is also a part of data creation. Meaning, using the concepts identified by using MLG in the coding frame entails that distinctions not covered by the frame will not be visible after the analysis (Schreier, 2012, p. 8, 30, 58-62).

The coding frame that will be used for this thesis is built upon data found in a first reading of the documents, as data-driven coding is often employed in QCA. Meaning, it uses examples that come across in the text to create indicators (descriptions of the ways in which a phenomenon manifests

<sup>&</sup>lt;sup>6</sup> This has been included in section 4.1 Why focusing on the local level and how to choose municipalities.

itself in the data) for the concepts<sup>7</sup>. Using indicators thus allows for a bridge between the underlying concept, and the actual examples in the data. This step also provides a way of working with the categories consistently (Schreier, 2012, p. 8, 84-85, 94-95, 99-100). Before use on the entire material, the coding frame was tested on one document (i.e., trial coded), to see if the construction work in relation to the documents, or if categories needed to be added. This allows for further development of the indicators and is a tangible way of operationalizing the concepts. For example, the concept *hierarchy* is operationalized as 'Is there a clear reference to actions being guided by legislation from the vertical dimension?', based on references made to EU legislation found within the document (Schreier, 2012, p. 18, 34).

The coding frame can be found in Appendix 1. Important to note is that numbers 1-2 in the frame will only be applied to the documents stemming from the EU and Sweden, as they primarily serve to give insight into the vertical dimension. And motivated by the desire to answer the first two research questions posed in section 1.2.<sup>8</sup> Number 3-8 will be applied to both the documents and the transcripts from the interviews. This since they focus on the operationalization of the concepts previously identified that correlates with the types of MLG, which can be found on the local level.

To be able to summarize and identify the concepts (i.e., the indicators) when practically working with the data, the documents are divided into units (i.e., segmentation), so that each unit fits into a category in the coding frame. For this thesis, the segmentation criteria and strategy are thematic. Meaning, identification based on change of topic and a subsequent marking of the relevant passages before coding (i.e., highlighting the parts of the text with relevance for the frame) (Schreier, 2012, p. 134-138). Since the thesis involves a two-part study, important to note is that the segmentation is undertaken on data from two sources: documents and interviews. For the documents, the importance of segmentation is more inherent, as it forces all the necessary material to be taken into consideration and places emphasis on being explicit of the objectives of the research. For the interviews, the questions posed serve as a natural way of undertaking segmentation, as these can be fitted into categories.

#### 4.3 Validity and reliability

Validity in qualitative research is often used comprehensively, as it refers to the entire study and not solely the method. Meaning, validity needs to be ensured in both the data as well as the study. Furthermore, to ensure this, transparency is key. Especially by making the procedure and reasoning available for scrutiny and disclosing the systematic way of undertaking the study (Schreier, 2012, p. 27). To ensure validity, the main issue also lies in answering the question "Are we measuring what we set out to measure?" (Boréus and Bergström, 2018, p. 41, 82-83). This emphasizes a connection between the research question and the method chosen. To reiterate, the overarching research question, and the sub questions, aim at explicating the division of responsibility between local actors based on data stemming from the document analysis and interviews using the theory of MLG. Thus, a method that allows for structuring material, operationalizing concepts from MLG, and identifying instances of these within the data is the preferable method. QCA is hence motivated, as it fulfils the criteria while being systematic and enabling transparency.

Problems of validity, connected to content analysis, are often raised related to the coding. Questions such as 'is the categories appropriate?' and 'is the sample valid?' are often raised (Titscher et al., 2000, p. 65-66). Therefore, validity is pursued by creating a partly data-driven coding frame that provides descriptions of what the text contains (i.e., the development of the indicators), rather than being purely concept-driven. It is important to mention that usually when conducting QCA double coding

<sup>&</sup>lt;sup>7</sup> This was undertaken to ensure validity, which will be discussed further in section 4.3 Validity and reliability

<sup>&</sup>lt;sup>8</sup> To reiterate, the questions are "What role do non-state actors play in the municipalities' textile waste management?" and "Has the waste directive amendment affected the type of relationship between the local actors engaged in textile waste?"

(when two researchers undertake the coding) is emphasized, as this ensures validity. However, due to the limited nature of this thesis, double coding was not possible, which must be kept in mind for the analysis of the data. It is acceptable to undertake QCA alone, but it is stated that QCA is usually best when undertaken by multiple researchers (Schreier, 2012, p. 16, 19).

Reliability, in context analysis, is reached through meticulously analysing the material. Here, the process of segmentation of the text is important to keep in mind, as this provides a thorough way of working with the data. Further, reliability is reached by being transparent about how the material was chosen<sup>9</sup> and analysed, and by showcasing the coding frame. This enables others to replicate the study, and reach similar conclusions (Boréus and Bergström, 2018, p. 42, Titscher et al., 2000, p. 65-66). In this regard, QCA has the advantage of being a systematic method, which in turn aids in the endeavour to reach reliability, as there is consistency in processing the data (i.e., by using the coding frame) from both the text analysis and the interviews.

## 4.4 Selecting empirical material - document analysis

Guided by the previous discussion on the vertical and horizontal dimensions, the material chosen for the document analysis will be documents stemming from the actors previously highlighted (the EU, Sweden, and the municipalities). More precisely, from the EU, Directive (EU) 2018/851 of the European Parliament and of the Council of 30 May 2018 amending Directive 2008/98/EC (European Parliament and The Council of the European Union, 2018) will be analysed, to answer the first sub-question posed in section 1.2. Moreover, to move down the vertical dimension and answer the second sub-question, the Swedish waste legislation (SFS, 2020:614) and the Swedish national waste plan for 2018-2023 (Naturvårdsverket, 2018) will be analysed. Furthermore, the Swedish legislation was updated in 2020, and the national waste plan revised in 2020, which correlates to the amended directive, making it suitable texts to include.

Swedish legislation stipulates that every municipality should produce waste plans, which guides the choice of documents for the municipalities. Furthermore, the legislation requires municipalities to incorporate certain aspects within these plans, but the municipalities can adapt the plans according to their circumstances and needs. Therefore, using waste plans is especially beneficial for document analysis, as they are a tangible way of studying how municipalities undertake the same tasks in different manners. Which in turn provides deeper insights into how management differs between the municipalities. Furthermore, to understand what changes were undertaken because of the amended directive, and to be able to assess the impact of the directive, the waste plans produced prior to the amendment must also be included. Comparing waste plans from the same municipalities, before and after the amendment, thus provides knowledge of the changes undertaken. This information will later be supplemented by interviews to gain further insight into the research question.

The texts from the municipalities were gathered on the 12<sup>th</sup> and 25<sup>th</sup> of February 2021. Important to note is that every municipality decides over the timeframe in which the plan is supposed to be in action, and thus the chosen texts representing the plan prior to the amendments stem from different years. However, all municipalities have updated their waste plans for the years 2020 and 2021 (i.e., after the amendment) and are thus appropriate to include. Malmö released plans in 2016 (VA SYD, 2016) and 2021 (VA SYD, 2020), Gothenburg in 2010 (Göteborgsregionens kommunalförbund, 2010) and 2020 (Göteborgsregionen, 2020), and Stockholm in 2017 (Stockholm vatten och avfall, 2017) and 2020 (Stockholm vatten och avfall, 2020). It must be noted that the latter plan from Stockholm is a committee report (*remissversion*), meaning it has not fully been accepted within the municipality. But is appropriate to include, as this document was the only available document released after the amendment in 2018. Furthermore, it can provide an understanding of what the municipality considers important, while

<sup>&</sup>lt;sup>9</sup> Which will be provided in section 4.4 and 4.5

simultaneously shining a light on what practical changes the municipality deems necessary. Nine documents in total are chosen for the analysis.

## 4.5 Selecting empirical material - interviews

The document analysis will be supplemented with interviews, that serve to shine a light on the perspectives and ideas held by professionals active in the local level. Therefore, semi-structured respondent interviews are the chosen mode of method. Primarily, since respondent interviews provide insight into experiences and opinions (Esaiasson, 2017, p. 236-237). Furthermore, the use of semi-structured interviews allows for using the coding frame, and the concepts developed priorly, while still tolerating some flexibility. Flexibility in terms of enabling open-ended questions, while also giving the respondent room to elaborate using follow-up questions. The questions are built upon the coding frame (appendix 1) established using QCA. Important to note is that the order of the concepts in the coding frame does not coincide with the order of the interview-questions, to maintain logical order when asking the questions. The questions for the interviews are attached in appendix 2, wherein the introduction, the ethical considerations, and information regarding the aim of the interview given to the respondents are also included (Lantz, 2013, p. 39, 70-71, 73-74).

The choice of respondents for the thesis mainly revolves around the need and want of including individuals who are familiar with structures, can discuss policies and plans and has a broad view of the milieu. Furthermore, the individuals shall have previous experience in the field. And therefore, supposedly holds opinions and valuable perspectives on the work undertaken in the municipalities which can aid in answering the research question. Therefore, selecting elites (i.e., politicians and professionals) for interviews is deemed valuable, as they possess prior expertise and informed perspectives. Furthermore, this would suit the choice of semi-structured interviews, as elites often respond well to open-ended questions regarding a broad area, as it allows them to draw from their expertise (Marshall, 2016, p. 304). The e-mail sent out to the chosen interviewes is attached in appendix 3.

The president of the municipal unit dealing with waste management in Malmö, Gothenburg, and Stockholm was invited to partake in the thesis. For Stockholm, this entails the president of *Avfallsnämnden* (the waste board). For Malmö, the president of *Miljöförvaltningen* (department of environmental management), and for Gothenburg the president of *Kretslopp och vattennämnden* (the circular and waterboard). Out of which, the president from Gothenburg accepted the invitation, whereas the president located in both Stockholm and Malmö forwarded the request to others whom they believed to have a better overview of the municipality's textile waste management.

Interviews with respondents from Malmö occurred on two occasions. The first, scheduled with two unit managers from the department of environmental management, one from the supervisory side and one from the strategic unit, on the 9<sup>th</sup> of March in 2021. A last-minute commitment of the unit manager from the strategic unit made her unable to take part in the interview, and it was thus carried out solely with the unit manager from the supervisory side through Microsoft Teams. The interview took 23 minutes, which could be explained by the absence of the unit manager from the strategic unit. Some comments were left by the unit manager from the strategic unit via e-mail, which complements the interview. The second interview took place on the 30<sup>th</sup> of March in 2021 through Zoom, with a development engineer, active in development and planning in the waste department at VA SYD. The interview took 53 minutes.

The interview with the respondent from Gothenburg took place on the 23<sup>rd</sup> of March in 2021, through Zoom, with the commissioner and president of *Kretslopp och avfall* in Gothenburg. The interviewee differs from the other respondents by not having waste management as their main occupation, but rather tackles waste management as a part of a political mission. The interview took 28 minutes. Moreover, the interview with the respondent from Stockholm took place on the 26<sup>th</sup> of March

in 2021 and was undertaken with the recycling unit manager of *Stockholm vatten och avfall*. The interview, undertaken through Zoom, took 43 minutes.

Furthermore, three interview requests were sent out to two non-state actors prevalent within all municipalities<sup>10</sup>, to gain further insight into relationships on the local level. Out of which, one actor accepted. This interview intends to supplement the conclusions and be contrasted with the results from both the document analysis and interviews. Meaning, it will not be included nor treated as a result, but rather serves to illustrate and exemplify issues located within textile waste management in the conclusions. The interview with a regional manager in Human Bridge (i.e., the non-state actor) took place on the 26<sup>th</sup> of March in 2021 through Microsoft Teams, and took 40 minutes.

<sup>&</sup>lt;sup>10</sup> Requests were sent out to two regional managers within the same organization, and one to another organization.

## 5. Results: no or minor impact...

The overarching question '*How does EU legislation impact local textile waste management?*' will be answered through data gathered with document analysis and respondent interviews. To reiterate, number one and two of the coding frame is used to analyse the documents stemming from the EU and Sweden, while 3-8 is applied to the documents stemming from the municipalities and the interviews. Furthermore, segmentation of the documents that was analysed for the EU and Sweden was based on mentions of, and text related to, textile waste. This entails that if analysis were to be undertaken with a different waste fraction in mind, the results might differ.

### 5.1 Vertical and horizontal relationships prevalent within the EU directive

Specific mentions of a vertical relationship exist within the text (European Parliament and The Council of the European Union, 2018), wherein the Commission receives reports from MS and monitors implementation. Instructions on what shall be undertaken by the MS are inherent in the text, further pointing towards a strong vertical dimension. For example, MS are to organize a separate collection of textiles and shall monitor and ensure that the waste collected separately is not incinerated. Furthermore, an end date in which the MS shall have enforced the laws and regulations within the directive was set (July 5<sup>th</sup> 2020).

Despite hierarchy (i.e., the vertical dimension) being distinguishable, references to a horizontal relationship are also made. For example, the MS shall support networks and facilitate relevant actors' access to waste that can be prepared for re-use. Furthermore, in examples given by the Commission on how to implement the directive, promoting a continuous dialogue and cooperation between all stakeholders in waste management, and encouraging voluntary agreements is mentioned.

# 5.2 No clear guidance from the state on how to divide responsibilities within the municipalities

No specific mentions of textile waste are apparent within the legislation (SFS, 2020:614), but it stipulates that if you professionally want to undertake collection of (any) waste, this must be reported to the county administrative board (*länsstyrelse*). Furthermore, municipalities are to handle the waste management and conduct a waste plan. This waste plan must be designed according to the guidance provided by the Swedish Environmental Protection Agency.

Specific mentions of the EU and the Swedish legislation is highlighted by the national waste plan (Naturvårdsverket, 2018). Specifically, how the EU legislation created a need to change national legislation, and how the waste directive obliges nations to develop national waste plans. The quantitative goals set in the EU directive is referenced, but textiles are not mentioned as a separate fraction of municipal waste. A specific reference to the vertical dimension within the state is mentioned, as the county board together with the Swedish forest agency are to coordinate efforts and formulate local goals and actions. Furthermore, the Swedish waste plan also includes the UN sustainability goals (i.e., goal 12, to reduce waste).

The national waste plan (Naturvårdsverket, 2018) states that action needs to occur on a global, as well as horizontal level, to tackle the waste problem. Concerning actions that can be undertaken on the horizontal dimension, strengthening synergies is specifically mentioned. Furthermore, it stipulates that municipalities do not need to organize the collection of waste themselves but can outsource it to an external actor if desired. Related to textiles, the national waste plan discusses non-state actors in, and their practices of, textile collection. However, little is mentioned regarding how this can be elaborated or developed, nor if municipalities that do not currently have non-state actors that collect textiles should encourage this. According to the plan, the biggest problem within Sweden related to textiles is that most of the textiles end up in residual waste, while consumption has increased.

Furthermore, the text highlights current upscaling of research- and pilot projects undertaken within the state, and different policy instruments that can be used to prevent waste. And, that producer responsibility for textile waste is currently being evaluated,

"[...] which ensures separate collection of textiles for reuse and textiles for recycling using permit-required collection systems, or in another way appropriate way that ensures good opportunities for supervision and reporting [...] (Naturvårdsverket, 2018, p. 114)

## 5.3 Results from the local level

To reiterate, when analysing the municipalities, numbers 3-8 in the coding frame is used, as this aims to further elaborate on the horizontal dimension. Important to mention is that the waste plans, and the upcoming document analysis, oftentimes focuses on waste management in general. This since the actual text within the plans referring specifically to textile waste is oftentimes minuscule. However, the inclusion of parts in the documents that refers to general management is deemed suitable, since this includes textiles (as textiles often end up in residual waste). Furthermore, this also includes sections that discusses re-use and/or recycling activities and initiatives (wherein oftentimes textiles are exemplified).

#### Tendencies of type I relationships within Malmö

The waste plan of 2016 (VA SYD, 2016) incorporates two municipalities, Malmö and Burlöv, but is part of a collaboration between 14 municipalities in total, and Sysav. The main goal related to textiles is to decrease the amount of textile waste in the residual waste until 2020, compared to the levels of 2015. The plan underlines guidance from the vertical dimension by referencing both national legislation and EU directives as influential in developing the plan. And thus, also impacts the subsequent waste management. The waste hierarchy<sup>11</sup> is emphasized multiple times in the text, along with the need to increase waste prevention. Furthermore, references to national legislation are highlighted multiple times, as it requires municipalities to oversee waste management. National goals for collecting, and recycling, and re-using textiles is expected to be delivered from the government during the duration of the plan.<sup>12</sup>

Important to note is that plan was developed through communication between multiple actors (such as businesses, stores, and interest groups), and that ideas and suggestions provided by these actors influenced the goals and focus areas for the plan. Which somewhat indicates non-hierarchical relationships. However, it is important to reiterate that this is related to general waste and cannot be specifically tied to textile waste. Related to formal/informal arrangement, the plan asserts that the municipality has private entrepreneurs, hired case-by-case (again, the discussion is related to general waste management). This implies a standard of formal agreements, albeit who these actors are is not mentioned in the document. Regarding informal relationships, there are no specific mentions that indicate the existence of such arrangements.

Collaboration (*samverkan*) is highlighted as an important strategy for the municipality, wherein businesses, stores, second-hand actors, and interest groups (amongst others) are mentioned as important actors that need to contribute to decreasing waste. This can be done by, for example, increasing accessibility to places of trade and repair, and second-hand shops. However, much of the planned management seems to be undertaken by the municipality, as they highlight the need to develop recycling centres (*Återvinningscentraler*) within the region, which demands investments (from the municipality) and regional coordination. An emphasis is also placed on city planning, to increase availability for citizens. All in all, this seems to indicate that the changes undertaken focus on reallocation functions and collaboration amongst municipal actors.

To summarize, the plan from 2016 seems to indicate type I relationships rather than type II. Especially based on the emphasis on the vertical dimension, formal arrangements, and reallocation

<sup>&</sup>lt;sup>11</sup> Introduced 2008 by the EU in Directive 2008/98/EC

<sup>&</sup>lt;sup>12</sup> Albeit this does not seem to have happened during the years 2016-2020.

of functions. However, Type II relationships can also be identified, primarily as non-state actors can influence the waste plan. However, one must reiterate that the types can co-exist, and finding evidence of both is not surprising. Furthermore, since this is largely connected to general waste management, no conclusions can be drawn related to the division of responsibilities in textile waste management.

One notable change with the plan from Malmö (which incorporates Burlöv as well) (VA SYD, 2020) regarding the years 2021-2030 is the name, instead of 'waste plan' the new plan is aptly named 'circulation plan'. Indicating an increased focus on circular economy and sustainability. In the new plan, no specific goal of decreasing textile waste is outlined, but instead, goals centres on decreasing municipal waste (i.e., waste the municipality oversees) by 30% until 2030, and a decrease of total residual waste by 50% until 2030.

Much like the previous waste plan, references to the national legislation are prevalent as it stipulates what should be included in the plan. Additionally, textiles are highlighted as a priority product on the national level. Furthermore, the EU directive and waste hierarchy are highlighted as influential for the plan. Notable is that the new plan also incorporates the UN sustainability goals. Specifically, goal 12 is mentioned (sustainable consumption and production patterns) and goal 17 (partnership for the goals). Meaning, a clear reference to the vertical dimension, with an addition of a new actor influencing the plan and management.

As with the previous plan, broad engagement, and collaboration with, for example, municipal politicians and administrations influenced the development of the plan. Additionally, feedback from other actors was heavily sought after during the preparation period. For example, the private sector, academic sector, and civil society is highlighted as especially important. Furthermore, the municipality frequently highlights the significance of collaboration with other actors, both for current waste management and the future success of the plan. Strengthening collaborations already in place, or trying to find and initiate new collaborations, are mentioned as vital to reaching a sustainable and climate-neutral society. Therefore, actors such as businesses, stores, interest organizations and second-hand actors (amongst others) "[...] play a very important part [...]" within the municipality (VA SYD, 2020, p. 29).

Management seems to lie primarily on VA SYD. Their responsibilities range from developing strategies for preventing waste, long-term communication work (to increase knowledge on how waste can be handled), to offering accessible collection systems and making sure that cooperation with other actors within the waste sector can contribute to accessibility. A specific collaboration in textile waste management is mentioned, with Myrorna, Emmaus Björkå and Human bridge (all charities). These organizations are active in all Sysav's recycling centres and provide opportunities for citizens to leave their products and clothing to re-use. Formal arrangement, with non-state actors, thus seem to exist within the municipality. Some collection close to apartment buildings, owned by the municipality, is also uplifted. It is not specified if this is organized by the municipality or non-state actors. No room for informal arrangements is mentioned in the text.

Regarding responsibilities, it is important to reiterate the role of VA SYD. Furthermore, the focus on recycling centres in the previous plan is continued with the new plan. The municipality highlights a need for developing the available collection systems within these centres, to increase possibilities for re-use and preparation for recycling. City planning is also, as with the plan priorly, emphasised as a major aspect of waste management. But other actors are also highlighted as valuable for the work undertaken. Communication between all actors in society, which could entail "[...] catching ideas from grassroots movements" (VA SYD, 2020, p. 29), is uplifted as important.

To summarize, the incorporation of non-state actors seems to have increased since the former plan, wherein they now play a more active role in both planning and management, and are seen a valuable partner. Does this then indicate a shift towards type II relationships? The change can be stated to be small, and one must reiterate that type II relationships are located within type I relationships, with

clear structures of hierarchies and division of responsibilities. Furthermore, it must also be discussed if this instead indicates a strong type I relationship, where non-state actors are seen as supplementary. Therefore, even though they now play a larger role, the changes can instead indicate type I relationships.

The interviews with the unit manager from the supervisory side and the development engineer from VA SYD seem to point towards a somewhat different direction. Firstly, the unit manager from the supervisory side (respondent A) highlights the entire waste directive, mentioning that it has put pressure on the municipality as they must adapt quickly, with little preparation time and increased workload. Here, the vertical dimension seems pressing, as there is a need to reorganize and alter management due to demands from actors 'above'. However, according to comments received via e-mail from the unit manager from the strategic unit (respondent B), the directive only provides guidelines, and the municipal management is instead guided by national directives and laws. Respondent B states "My perception is that Sweden often chooses to 'walk ahead' in questions regarding waste".

This is further substantiated by the development engineer (respondent C), who articulates an awareness of the directive, but perceives the national and regional level to matter most since these instances provide legislation and guidance for the work undertaken in the municipality. Although respondent C acknowledge to maybe not possess enough knowledge about the directive to make conclusive statements about what is derived from the waste directive and what is derived from the national legislation. Respondent C further paints a picture wherein the municipality is awaiting national legislation and guidance regarding how to proceed with the collection of textile waste. Meaning, if responsibility of collection is to be officially placed upon municipalities or producers. And further voices concern for the future, in reaching the goals stipulated by the EU. Primarily due to the wait for guidelines from the state combined with the high goals. "[...] 2025, for me, that is like... tomorrow", states respondent C. Combined, this points towards a strong vertical relationship, with either the EU or the state serving as an actor 'above'. Specifically, since waiting for guidance have delayed the work in the municipality.

Compared with the vertical dimension, the horizontal dimension and non-hierarchical relationships seem less clearly defined. Respondent A and C mentions collaboration with the municipal company and other municipalities as the main form of management, but other actors are also loosely highlighted by both respondents. For respondent A, this vague description can be due to the interviewee, as the respondent admits to not having any insight into this work, as the respondent solely works with supervising, and not the executive branch. Meaning, it is hard to base any conclusions on this remark. Respondent C, however, more clearly accentuates this, by explaining the collaboration with Sysav, and how non-state actors are involved. More precisely, that the recycling centres are owned by Sysav, which VA SYD takes part in funding, and Sysav, in turn, procures the textile collectors prevalent in the centres.

Formal arrangements are emphasised as the preferable option for the municipality. Respondent A highlights a significant increase of actors applying for recycling permits within the municipality over the last years. Furthermore, respondent C discusses formal agreements made between Sysav and organizations that place recycling bins within recycling centres (as declared previously). Interesting to mention, since the respondents' places special emphasis on this, is the illegal actors active within the municipality. Respondent A states that they are a big problem for the municipality, with recycling bins (collecting textiles) that are neither allowed nor monitored. Furthermore, that this problem might become more apparent within the next few years and is something the municipality is working to combat. This is further validated by respondent C, who states that the municipality has worked hard to 'clean up' the unserious (the respondent uses the term unserious, instead of illegal) actors, and that these are a nuisance for the municipality. Personally, respondent C finds it hard to keep track of all the actors prevalent within the municipality, as actors keep appearing and disappearing, and changing their names. And, that it "[...] would be nice to be able to refer citizens to serious actors". Indicating hopefulness for increased amounts of formal agreements in the future, which could simplify the work undertaken in the

municipality. As the municipality then would be able to, in theory, more clearly advise citizens where to leave their textiles.

Regarding the division of responsibility, respondent C states that the municipality does not have any infrastructure for collecting textiles. Or rather, states that is the "simple answer", when asked if he/she knows what the municipality does, and what other actors does. Consequently, the municipality must refer their citizens to either the recycling centres, driven by Sysav, or collection sites in the city (which, to reiterate, is sometimes run by unserious/illegal actors). The 'intricate' answer given by respondent C is that the municipality does provide special services, which for example consists of opportunities and sites wherein circulation for textiles and products can be undertaken. But the main responsibility that has been taken by the municipality seems to lie on knowledge, in terms of educating citizens what they can do to prevent waste.

Regarding division of responsibility, in the future, respondent A believes non-state actors will not make an impact, or contribute a great deal, in reaching the targets set by the directive:

The goals are high... so, with these small private actors, it may be difficult. But sure, small strands are better than no strand, that cannot be neglected. But I think you have to focus on the bigger actors when we talk about goals

However, respondent A also admits to not having full insight into relationships with other actors and mentions that collaborations are on the way. And, that there is talk of increasing recycling with a focus on soft goods (i.e., textiles), but cannot say exactly how this will work or is currently undertaken. Respondent C provides a more nuanced perception of the situation. The interviewee states that cooperation (*samverkan*) within the municipality is important for the future, that "[...] we need the city with us, on multiple levels". And, that if no producer responsibility is enforced, respondent C sees a possibility of the municipality undertaking the collection, by adding a box to the containers they already provide. But respondent C also states that the municipality does not want to diminish, or stop, the work that is done by other actors (such as second-hand actors or textile collectors). Because their contribution, and work, is considered valuable and there is no wish of slowing this down.

The interview with the respondents from Malmö seems to point towards an emphasis on Type I relationships, as the main forms of collaboration and division of responsibility seem to occur between the municipal company and the municipality, with an emphasis on formal arrangements with non-state actors. Adding to this, comments made by respondent A regarding the ability for non-state actors to impact the goals in the future, implies that he/she did not see non-state actors as big contributors in reaching the goals. Important to note is that the respondents, especially respondent C, does recognize the usefulness of non-state actors, in formal arrangements. This further strengthen the findings from the analysis of the documents, wherein non-state actors are increasingly seen as important, but encompassed by type I relationships.

#### Tendencies of type I relationships within Gothenburg

The waste plan of 2010 (Göteborgsregionens kommunalförbund, 2010) is a collaboration between 13 municipalities within the Gothenburg region. Important to mention is that textile waste is hardly mentioned and is only included as a part of municipal waste. Therefore, the text included in the analysis primarily concerns general waste management that can have a bearing on textile waste. For example, within a paragraph concerning goals for waste management, the goal "resource management" is highlighted. And the segment stating that "A better cooperation between the region [...] and other actors, with better information efforts and collection systems can lead to increased sorting and recycling" (Göteborgsregionens kommunalförbund, 2010, p. 14) is incorporated within the analysis, in nr. 8 in the coding frame (*Division of responsibilities - Are other actors, besides municipalities, seen as valuable for the work undertaken*?).

The vertical dimension makes itself apparent in the waste plan, by references to both the EU and the Swedish state. Non-hierarchical relationships can also be identified, mainly due to the plan being a result of collaborations between the municipalities within the Gothenburg region. Thus, the collaboration between municipalities and municipal instances is the most prominent example of non-hierarchical relationships. This is also illuminated by the co-ownership of the municipal waste company, Renova, by many of the municipalities within the region. Other waste actors are incorporated, but only briefly, not by name, nor how the collaboration is undertaken, but rather in statements of how important they are as collaboration partners.

Formal arrangements seem to be the most prevalent expression of management. Renova is the main actor that oversees most of the management. Second-hand actors are included as important for the municipality in collecting used products, both previously and for the future, and wishes for increased collaboration is expressed. But no specific mentions of how this collaboration has been undertaken previously or should be undertaken is stated. Furthermore, in a consultation exemplified in the text, smaller actors have pointed out to the municipality that they are reluctant to make offers on management services. This since the demands set by the municipality is too many, and too hard, to be tackled by these actors. However, this is related to general waste management, but could indicate a prevalence of a threshold that excludes some actors, but no conclusions can be drawn since this is not further developed in the text. No room for informal arrangements, nor a fluid form of participation, can be identified in the text.

With a large emphasis placed on collaboration between municipalities, and Renova, the division of responsibilities seems to be inherently between municipal functions. Other actors are mentioned to be important, valuable, and needed to reach the high goals set in the plan. But, as stated previously, their contribution in the past and possible contributions in the future is not described in detail. The waste plan does put forward some suggestions for the future. For example, that the municipalities could collaborate with stores and businesses to affect the composition of the waste. And, that the municipalities should work to develop a regional standard for dealing with the waste charity organizations cannot handle. However, these are only suggestions.

To summarize, the plan from 2010 indicate a strong type I relationship, as the main form of collaboration seems to be between municipalities and the municipal company. Based on the references made to other actors, but a lack of emphasis on how participation is expressed, other actors are seen as supplementary to the municipal actors.

In the waste plan from 2020 (Göteborgsregionen, 2020), there are more pronounced goals related to textile waste and collection. More specifically, that the number of textiles in residual waste should be reduced by 60%. Like the previous plan, references to the hierarchical relationships with both the EU and the national legislation are mentioned. And that since the last plan was presented, the EU directive have been amended. The waste hierarchy is highlighted, together with references to the UN sustainability goals, Swedish (*generationsmål*) and regional environmental goals ('*Klimat 2030 Västra Götaland ställer om*').

The non-hierarchical relationships are, just like the previous plan, tied to the horizontal dimension between municipalities (i.e., the regional collaboration in creating the plan). Compared with the previous plan, the new plan is more holistic and aims to incorporate more interplay and collaboration between instances within the municipalities, and other actors. Communication between actors (municipal and non-state) are highlighted as valuable and needed to reach the targets. Other actors' importance is more clearly emphasised compared with the previous plan. For example, they are stated to be important actors in reaching the new goals. Furthermore, working groups with representatives from both municipalities and organizations (which organizations are not mentioned) worked to develop the plan. Indicating relationships where communication, and the availability for other actors to provide feedback, are prevalent. This further cement, and provides valuable insight into, how other actors are actively engaged in the work undertaken.

Formal arrangements seem to be the preferred method. For example, related to general re-use and recycling, the region states that they aim to identify and have dialogues with possible and important collaboration partners from both businesses and civil society. Furthermore, suggestions for future agreements with organizations that provide re-use and recycling options close to residences are also highlighted. For upcoming work with textile waste, the waste plan also highlights that new systems and services need to be developed. And, that new modern collaborations between municipality, businesses, and academia is needed. They emphasise a need for actors who can take care of recycling/reuse of products, and that the municipality needs to be attentive to the needs of actors that want to develop and make re-use possible. Combined, this points towards an increased commitment, from the region and municipality, to increase engagement and incorporation of other actors in waste management. No mentions of informal arrangements are made.

The division of responsibility seems to lie mostly upon the municipality, and Renova. The municipality oversees the collection of municipal waste, and highlights that many products left in the municipal waste fraction can be either prepared for, or be, re-used or recycled. Increasing the availability of the recycling facilities (*återvinningscentraler*), and educating staff within the municipal sector is suggested as solutions. Meaning, focusing the work on reallocation functions, and increasing these, between and within municipal actors. Additionally, related to textile collection, the municipality declares a desire to create opportunities for a separate collection of textiles. The main actors highlighted in this effort is waste actors, municipalities, the Gothenburg region, households, Renova and universities. Furthermore, important to note is that the recycling facilities offer a collection of "[...] things and materials for re-use, often in collaboration with idea-carried<sup>13</sup> organizations" (Göteborgsregionen, 2020, p. 73). Other facilities for waste prevention are acknowledged, for example, repair actors and second-hand actors, which have increased in the last few years according to the waste plan. Combined, this provides an image of a plethora of actors that engage in recycling and re-use. And, that these actors are valued and considered important for both society and when undertaking waste management.

To summarize, the new plan from the Gothenburg region continues the work that started in the former plan. Meaning, the horizontal collaboration between municipalities is increased, exemplified by the holistic approach taken that now encompasses municipal instances, the municipalities themselves and the region. The vertical dimension is somewhat changed, exemplified by the addition of the UN sustainability goals, and regional goals. The division of responsibilities seems broadened, compared to the previous plan, as other actors are highlighted as especially important. Furthermore, the engagement and inclusion of the actors is more elaborated and pronounced in the new plan. However, the focus on formal arrangements may indicate that the utmost responsibility is kept by the municipality. Compared with the first plan, is there now a shift to type II relationships? Again, when reiterating that type II relationships can be located within type I structures, this conclusion cannot be drawn. Instead, this could indicate that type I relationships are prevalent in the latter plan since the actors incorporated can be seen as supplementary to the municipality.

The interview with the president of *Kretslopp och avfall* (respondent D) provides further insight and a more nuanced picture of the landscape within the municipality. Firstly, regarding hierarchical relationships, respondent D stresses the relationship with the state, while the relationship with the EU are less pronounced. EU directives in general do have an impact on the work within the municipality, according to the respondent. But that deciphering what stems from an EU directive and what stems from Swedish legislation is sometimes unclear, and that "It is pretty uninteresting [EU directives] for us, because it is what the Swedish authorities place upon us that becomes our reality." Furthermore, regarding changes to the waste directive, respondent D believes that this affects the municipality to a lesser extent, but also admits this perception can come from ignorance. Currently, the municipality is waiting for guidance from the state regarding an evaluation of the producer

<sup>&</sup>lt;sup>13</sup> "Idéburna organisationer", which organizations this term includes is not stated.

responsibility, which will decide where responsibility will lie. A lack of guidance from the state also makes it hard for the municipality to initiate anything related to textile waste, but respondent D states that he/she wishes that something will be done soon since 2025 is approaching. Respondent D also believes the legislation is delayed because of the inability of the state to agree on how the legislation should be designed.

Regarding practical management within the municipality, related to textile waste, respondent D is aware of textile collections being prevalent in the recycling stations. And that this is undertaken through missions granted by the municipality. The respondent assumes this is undertaken through formal arrangements between organisations that collect textiles in recycling centres and Renova but is not aware of this is designed. No mentions of informal arrangements.

Respondent D highlights that, to his/her knowledge, the municipality has neither collected textiles to a larger extent nor gathered information on the collection of textiles previously. Primarily since this has not been the responsibility of the municipality. Regarding the future of textile waste collection within the municipality, the respondent also highlights two especially poignant factors. First, that the municipality is waiting for a decision regarding producer responsibility. Personally, the respondent believes larger actors such as H&M should undertake this, as these actors could also influence the production process. Meaning, working with marking the items, and other ways, to make clothing easier to sort and recycle. Secondly, respondent D does not believe the municipality is an appropriate actor to collect textiles. This not due to it being a fraction difficult to collect, but that the hard part is what to do with the textiles once collected. Here, the respondent believes that second-hand actors are better suited to tackle this step and that the municipality does not want to disturb nor compete with the already functioning second-hand businesses. It is then, according to him/her, better to offer these actors a space or location where they can collect textiles. If the responsibility would end up on the municipality, respondent D believes it would be better to deepen the collaboration with the second-hand actors. But the final remarks made by respondent D revolve around that the municipality is awaiting a decision regarding producer responsibility.

To summarize, the document analysis suggests a prevalent type I relationship within the municipality. Combined with the interview, wherein respondent D discusses a strong vertical dimension (especially emphasised by the anticipated producer responsibility evaluation from the state) with some awareness of formal arrangements prevalent, this also points towards a type I relationship. Important to note is that the respondent stresses that collecting textiles is not the municipality's responsibility, and views non-state actors as highly important in this process. Indicating a possibility of type II relationships. Vital to consider here is the role of the respondent. Wherein the individual, compared to other respondents in the thesis, works as a politician and is not involved in nor have (admitted by the respondent) a great deal of insight into the practical management.

#### Tendencies of type II relationships within Stockholm

The waste plan from Stockholm, for the years 2017 - 2020 (Stockholm vatten och avfall, 2017), mentions textiles as a priority product. For instance, one of the goals is to decrease the number of textiles in the residual waste fractions. References to the vertical dimension, and hierarchy, can be identified. More specifically, laws, plans and strategies from both the EU and the national level influenced the formulation of the plan. This is illustrated by the many references to the waste hierarchy, and that the municipality is striving towards moving further 'up' following this. Meaning, an increased focus on waste prevention. Furthermore, laws, plans and strategies from the regional and local levels are taken into consideration as well.

Non-hierarchical relationships are also indicated, in a plethora of ways. For example, that multiple actors, both private and "so-called help organizations" (Stockholm vatten och avfall, 2017, p. 14) have worked to increase the possibility for, and access to, recycling for consumers in previous years. Furthermore, collaboration with actors that can receive used products, and have the potential to develop

collection systems in the future, are emphasized as important. This ties into a discussion of formal and informal relationships as well, as it seems to indicate that formal agreements are the sole way of organizing management. However, it must be noted that this is not specifically tied to textiles, but to all waste fractions that is 'source sorted' (*källsorterade*).

The division of responsibilities seems to be mainly lie on the municipality. For example, related to work regarding re-use and preventative work for waste, dialogues within and between municipal instances are emphasized as needed. Furthermore, *Stockholm vatten och avfall* is highlighted as the main actor. They are to provide and develop systems for receiving, re-using, and recycling textiles. Which indicates a reallocation of functions between municipal actors. However, for the future, collaboration with other actors to increase innovative solutions (related to general waste) is emphasized.

To summarize, the plan from 2017 seems to generally point towards a type I relationship, with clear references to vertical structures and the reallocation of functions within and between municipal instances. But the clear inclusion and emphasized importance of other actors may indicate a prevalence of type II relationships. However, since the plan does not provide a deep enough understanding of how collaborations between the actors and the municipality are undertaken (e.g., by the shortage of information on formal/informal arrangements), this conclusion cannot be drawn.

The newest waste plan, for the years 2021-2024 (Stockholm vatten och avfall, 2020), also includes a specific focus on textile waste. Primarily by stipulating that the amount that is prevented, reused, and recycled should increase. Like the previous plan, a reference to the vertical dimension can clearly be identified. Additionally, mentions of the EU circular economy, the green deal, and UN sustainability goals indicates that the vertical dimension is deepened and expanded. Important to note is the discussion held in the plan, related to the waste hierarchy, where it states that "The waste staircase<sup>14</sup> is, however, a linear model that needs to be developed to a more circular way of working" (Stockholm vatten och avfall, 2020, p. 10). Interestingly, the plan also includes suggestions for new goals for textile waste that can be included within the national plan (for example, to decrease textile waste by 60% compared to 2015, and by 2025 90% of all textile waste collected should be prepared for re-use or recycling).

Non-hierarchical relationships are moderately indicated, related to general waste. It states, that in developing the plan other actors were able to leave comments on the document and contribute with insights. Meaning, opportunities to provide feedback to the municipality. Following this argument, knowledge from other actors also seems to be valued by the municipality. Especially highlighted is their need to be involved in future technological development. But this does not necessarily have to be related to textile waste, but rather waste in general.

Formal arrangements seem to be the main way of participation. Past and future collaboration are stressed throughout the plan. Past, by highlighting that previous collaborations with private and voluntary organizations have increased the possibility to leave products in the recycling centres. And, that the prevalence of these systems has aided in decreasing the amount of general waste in the municipality while creating increased accessibility to recycled material other actors can use. In the future, it is stated that if the goals are to be reached this might demand producer responsibility, which is being evaluated on the national level during the making of the plan and is therefore not considered within the plan itself. No mentions of informal arrangements can be found.

Despite other actors being highlighted as important, the division of responsibility seems to lie inherently on the municipality. Primarily since the usage of, and development of new, recycling centres (*återvinningscentraler*) provided by the municipality is emphasised. Furthermore, *Stockholm* 

<sup>&</sup>lt;sup>14</sup> "The waste staircase" is a description of the waste hierarchy.

*vatten och avfall* should provide and develop systems for receiving, re-using, and recycling textiles. Indicating that they are responsible for textile waste collection.

To summarize, the new plan seems to indicate that the previously established prevalence of type I relationships is maintained, with some additions. The reluctance to ascribe the relationship to a type II, despite the emphasis on collaboration and cooperation with other actors, rests upon the fact that these actors seem to be viewed as supplementary to the municipality. Especially motivated by the usage of recycling centres provided by *Stockholm vatten och avfall*. Furthermore, the addition to the vertical dimension, wherein the municipality provides suggestions for improvements to the national waste plan, is interesting. Not solely since it indicates that the municipality acknowledges the importance of tackling the issue of textile waste on a broader scale. But also, since it can indicate that the municipality does not adhere to the typical vertical dimension, where directions are given top-down. However, no substantive conclusions can be drawn from this. When comparing to the previous plan, no clear change of relationship types can be identified. This could stem from textile waste previously being identified as a priority for the municipality, which indicates already established relationships and management practices. However, it must be noted that the new waste plan seems to indicate a more thorough inclusion of other actors, indicating a possibility of a type II relationship.

The interview with the recycling unit manager of *Stockholm vatten och avfall* (respondent E) sheds further light on the relationships within the municipality. More specifically, it seems to indicate more of a type II relationship. Starting with hierarchical relationships, respondent E paints a picture where the waste directive has a big impact on the municipality. But this is more related to the fact that it trickles down to municipal level through national legislation. "Even though people working on the 'floor' does not know what the waste directive contains, it is still part of their work". However, respondent E does not believe the amendment in 2018 to have a significant impact on the textile waste management in the municipality. Specifically, since the municipality already had a previous interest in textiles and started to devote resources to collect textiles in 2012. Respondent E stresses that the municipality of Stockholm collects more textiles than the national average. This also leads the respondent to believe that it is very plausible for the municipality to reach the targets set in the amendment. Therefore, respondent E states, national initiatives stemming from, for example, the Swedish Environmental Protection Agency has not been used by the municipality.

Respondent E further highlights guidance from the state, by continuously discussing the governments' evaluation of producer responsibility throughout the interview. As of now, respondent E is uncertain if this will work practically, nor be surprised if this does not come into force at all. This, since the respondent is aware of some problems with the proposed legislation that have been highlighted by the Swedish competition authority (but does not go into further detail about what these problems entail). However, respondent E hypothesises that even if this does come into force, some responsibilities would be placed on the municipalities. Respondent E speculates that there will be two streams (with textiles), of which the municipality would manage one. But is unsure if this would entail responsibility for the waste fraction or the re-use fraction.

During the interview, respondent E gives clear indications of non-hierarchical relationships being prevalent within the municipality. Especially by emphasising collaborations undertaken with non-state actors. Which, related to the coding frame, also coincides with the questions of formal arrangements and division of responsibilities. To summarize, the respondent describes that management is undertaken by non-state actors, commissioned by the municipality. Giving indications of formal agreements as the main form of arrangement within the municipality. Respondent E states that actors such as Myrorna, Emmaus and Human Bridge (i.e., voluntary organizations) "[...] does everything [...]". These actors report to the municipality, which in turn requests that the actors are transparent, and communicate where the textiles end up. This since the municipality wants to make sure that no textiles go to incineration, which according to the interviewee none does. Respondent E also exemplifies previous actions, by stating that the municipality has previously considered making formal

agreements with actors that collects textiles (specifically H&M and other actors that can, and does, collect textiles in stores are mentioned, to increase accessibility for consumers). This, respondent E explains, was due to the responsibility of collection resting upon the municipality, which consequently has gathered information regarding where collection locations are located. However, this information has been left unused, as the municipality is awaiting further instructions from the state.

The comprehensive collaboration with non-state actors, respondent E clarifies, is due to Stockholm having to deal with specific challenges. Mainly, in terms of storage. Since Stockholm does not have any space for neither storage nor pre-sorting of textiles, they must make sure the collected textiles are being taken care of as soon as possible. Therefore, non-state actors are deemed vital actors since they have resources to allocate the textiles after collection. "If we send out a question 'who wants our textiles?', it is only the voluntary organizations who are interested" respondent E states, also mentioning the infrastructure these actors provide, in terms of labourers who can sort the textiles.

To summarize, the document analysis shows that type I relationships are the predominant type within the municipality. This is somewhat verified by respondent E, especially when highlighting the hierarchical relationships. However, some existence of type II relationships is also implied, for example when respondent E stresses the importance of non-state actors (which is also substantiated by the latter waste plan), and their contribution in terms of expertise and labour. Does this suggest that a type II relationship is embedded within a type I relationship? Before drawing this conclusion, information from both the analysis of the waste plans and interview must be contemplated. As stated previously, non-state actors are seen as highly valuable partners, exemplified by respondent E declaring they "do everything". Which coincides with type II relationships and the concept division of responsibilities. But when reflecting upon the concepts of formal/informal arrangements and hierarchy, this instead reveals a type I relationship. To clarify, respondent E stresses that non-state actors are encompassed by formal arrangements, with demands of transparency and communication. Suggesting that the collaboration undertaken is guided by the municipality, with lesser freedom for the non-state actors to give feedback to the municipality or arrange management themselves, as they must adhere to the demands placed upon them.

## 6. Conclusion

This thesis analyse how local textile waste management is impacted by the amendment to the EU waste directive. It uses waste plans from three Swedish municipalities supplemented with respondent interviews with elites as the empirical material, to answer the overarching question '*How does EU legislation impact local textile waste management*?'. Conclusively, the thesis shows that the legislation has had no or minor impact within the three studied Swedish municipalities, regarding type I and type II relationships as stipulated by the theory of MLG. However, the thesis shows and elaborates on how management and approaches can differ between municipalities. And thus, provides insight into how textile waste management is (or rather, is not) currently undertaken within Sweden, which can be elaborated on by future research.

Additionally, this 'cut' in the implementation process, which serves to highlight what is going on when a policy is being implemented (discussed by e.g., Hupe et al., 2014), showcases difficulties and questions that can arise during the implementation process. For example, how more regulation can be desired to tackle problems prevalent within a sector (e.g., the prevalence of unserious/illegal actors, or the issue of output for the collected textiles). The findings further nuances implementation studies, which have previously largely sought to explain outcomes or outputs.

To elaborate and clarify the conclusions discussed above, the sub-questions posed in section 1.1. will now be further discussed. To reiterate, an interview with a non-state actor, Human Bridge, will be contrasted with the results. Important to remember is that the responses given by the respondent from Human Bridge do not serve as results, but rather as an aid in illustrating and exemplifying the points, issues, and questions raised in the results.

- How does the EU directive, regarding textile waste, dictate divisions of responsibility within the Members states?

The simple answer is that the EU directive simply states that the MS are to undertake a separate collection of textile waste. And, that MS should oversee monitoring and ensure that textiles collected separately are not incinerated. Aside from examples given by the Commission on how to implement the directive, no clear division of responsibility is dictated to the MS.

# - What goals are the Swedish government working towards regarding textile waste? And is the goal setting influenced by EU legislation/directives?

The documents analysed stipulates a general decrease of residual waste and does not treat textiles separately. However, the national waste plan does mention considerations of introducing producer responsibility for textile waste, much like the one exemplified by Bukhari et al. (2018). This is further alluded to and emphasised in the interviews. This decision, to move responsibilities to the producers, stems from the Swedish government, according to the interview with the respondent from Gothenburg. And is not specifically stemming from the EU legislation (which, to reiterate, does not give any indications of how separation and collection of textiles should be undertaken). However, given the discussion with the respondent from Gothenburg and the respondent from Stockholm, the future for this decision seems uncertain. This also impacts how some municipalities, namely Malmö and Gothenburg relate to textile waste management. Meaning, it seems as this has hindered the work undertaken by the municipalities, causing local management to await guidance from the state before undertaking any management changes. Respondent D from Gothenburg states, "If it is not our responsibility, it is not our responsibility".

Regarding the future, some respondents' voices desire for more legislation surrounding textile waste. Namely, to tackle the problem of illegal/unserious actors. Specifically, respondent A, from Malmö, focuses on this and states:

When talking about these kinds of things I can see that it can create, and become, a problem moving forward, with textile trade that maybe the law nor directives have kept up with [...] But there is a pattern, the illegal market is always 2 years ahead of the municipal

The respondent from Human Bridge seconds this sentiment, declaring:

There have to be regulations. There are a lot, or there are many things one could regulate, from the perspective of a working system. There are many pitfalls, one has to say, and it reflects this. It is a grey area that many actors are working with, that we who collect textiles are confronted with [...] But the problem today, so to say, is how to regulate some parts in this, or who is responsible

Indicating that despite a producer responsibility coming into force, this still does not solve all prevalent issues.

- How are Swedish municipalities currently handling their textile waste, are they to undertake a management change due to the new directive?

Currently, most of the municipalities seem to indicate that they do not handle textile waste, or handles it to a lesser extent, as they are awaiting further directions from the government. Respondents from Malmö (especially respondent C) highlights a lack of infrastructure for collection, and respondent D from Gothenburg states it is not the municipality's responsibility. However, respondent E from Stockholm underlines that the amendment does not affect the municipality to a larger extent. This since textiles have previously been targeted by the municipality (accentuated by both the waste plans and the respondent), which also entails that relationships with non-state actors that handles collection and sorting of textiles have been established.

With producer responsibility currently being evaluated, and not yet implemented, the municipalities seem to lack information on how to move forward and are consequently reluctant to initiate any new management practices. Some municipalities had, however, gathered information about active actors within the municipality, intended to be used to advance the collection of textiles. This information is currently not being used, as they are awaiting further instructions. Adding to this discussion, multiple respondents express concern regarding the future for producer responsibility. With one respondent theorizing that the responsibility may still be placed on municipalities, despite it coming into force. The respondent from Human Bridge states:

And they [Stockholm] will get, just like other municipalities, they will get a commitment, as I understand it, to solve the accessibility, derived from the EU directive

Despite there being no clear indication of any management change, one distinction that can be made is the increased attention aimed towards textile waste, from all municipalities. Noticeable in not solely the plans, where textiles are unmistakeably mentioned more in most of the updated plans, but also in the interviews. Wherein most, if not all, respondents' express wishes for an increased collection. This change is also reiterated by the respondent from Human Bridge, stating:

[...] The EU directive makes it so that these issues have to be raised. And hopefully, something good will come out of it. So, the positive with this is that these questions [about illegal actors] and other questions, from a textile perspective, are raised on the agenda. On the general, the societal and the legislative. Now, you are discussing this in a completely different way compared with a few years ago. [...] But I think a lot of positive things can come out of this

- What role does non-state actors play in the municipalities' textile waste management?

Altogether, both the documents and the interviews indicate that non-state actors are highly valued, but also seen as supplementary. In Malmö, one respondent shared disbelief of the contribution of non-state

actors, when discussing possibilities of reaching the goals set in the amendment. Simultaneously, respondent C saw a possibility for the municipality to undertake the collection in the future. In Gothenburg, the waste plans point to a desire to deepen collaboration with a wide range of non-state actors. And respondent D expresses that non-state actors should undertake collection of textiles (if no producer responsibility is introduced), and not the municipality. In Stockholm, the incorporation of non-state actors is more clearly expressed, explicated by respondent E stating that non-state actors "does everything". The respondent from Human Bridge illuminates the relationship further by stating:

We have no agreements with Stockholm city, like we do with many other municipalities, and when you make an agreement with a municipality it then concerns placement on the recycling centers. But we do have agreements, when talking about Stockholm, with their municipal residency companies [...] But we do not have any agreements with, and no one else does either, an agreement with Stockholm city regarding recycling [...] But in Stockholm city, we have the largest volume, coverage, from our agreements with the other actors. Primarily with residency companies. Both municipal and private. But then, we have a collaboration. And that is, we have had a very good cooperation, we have had assignments, project assignments with *Stockholm vatten* [...] But that is for a limited time, it is a project, but we have undertaken that during different periods for a few years. And we have a very good cooperation with them.

Mentioning temporary projects are interesting since they indicate a more fluid form of participation, which corresponds with type II relationships. Given the previous uncertainty in establishing the type of relationship within the Stockholm, wherein signs of a type II relationships could be identified, this addition is noteworthy. However, since this was not backed up by neither the plans nor the interview, one cannot draw the conclusion that type II relationships are the sole form of relationships within the municipality. Nonetheless, it can be stated that there are indications of a possible type II relationship being prevalent, and/or has a potential to change to a type II relationship in the upcoming years.

Besides the discussion regarding the formal division of responsibilities, the interviews highlight other aspects that may impact textile waste collection and the role of non-state actors in the future. Multiple respondents stress the importance of outlets for the collected textiles, regardless of how much is collected, which is especially necessary considering the amendment. "What one can see, is that there will be incredibly larger quantities of textiles that will be collected" states the respondent from Human Bridge. Most of the respondents emphasizes that actors who provide this service are needed in the future. The respondent from Human Bridge further emphasizes this, by declaring:

I hope, and think, that we can be a part of this, and influence. I mean, we have a very advanced organization, in terms of logistics for these parts. So, I hope we can be an actor in this chain. Because we have long experiences collecting textiles. And an advanced organization to deal with large amounts. Which I hope will not be looked away from in any way, but that we are given the opportunity to grow into this [...] I am hoping, and believe, that we can be an actor taking part in this. And we are working towards being an actor who can, and we want to develop our business to be just that, and we have a potential to be that too [...] There needs be someone who has a possibility of working with this [...] I am just saying that one also must be able to make use of the actors who already exist today

Another discussion, lifted by all municipalities, is the prevalence of unserious/illegal actors. These actors are often seen, by the respondents, as a nuisance. Predominantly since they are hard to monitor, and thus transparency of what happens with the collected textiles is missing. Respondent C from Malmö voices reluctancy to refer citizens to these actors, due to this uncertainty. Furthermore, respondent A from Malmö declares:

That is what we are trying to find now, why they are doing this. Is it actors who, for example, sell these [textiles]? Or are they sending it forward to the third world, or how they are doing

it, they market that they are, but are they doing it in real life? [...] It is not easy to locate them [illegal actors].

This is further illuminated by the respondent from Human Bridge, when discussing that this have been known to the organization for years, and that the occurrence of these actors are increasing, and represents societal problems.

Our reality is that this industry is right now affected by a lot of organized crime. Because it involves such a huge amount. And this is a complex of problems one must be aware of. [...] And somewhere, one must be aware of that this, this is reality, and it is growing, unfortunately. [...] And here is where the legislation must help

But the respondent from Human Bridge seems hopeful when discussing the future. Primarily since the increased attention aimed towards textiles, which the amendment aids in doing, can both shine a light on and increase engagement of multiple actors in solving issues prevalent within the sector. For example, the issue of illegal/unserious actors.

[...] but I am thinking, hoping and thinking, that the more this becomes, what should I say... 'a general question', in terms of textiles and working from the demands from the EU, that this will need... that this is an aspect that needs work/to be dealt with/worked with.

# - Has the waste directive amendment affected the type of relationship between the local actors engaged in textile waste management??

When discussing type I vs type II relationships, all municipalities seem to adhere to type I. This is noticeable both in the previous and latest waste plans. Some type II traits can be identified, admittedly more prevalent within the newer plans. Contrasting the document analysis with the interviews further develop this argument. Firstly, many of the respondents provide some narratives that fit the interpretation of type II relationships. For example, respondent D from Gothenburg stresses a belief in non-state actors being the appropriate actors for engaging in textile waste management. And respondent E from Stockholm further corroborates this when discussing the already prevalent use of non-state actors within the municipality. Secondly, both respondent E from Stockholm and respondent C from Malmö mentions previously having gathered information regarding the active non-state actors within the municipality, intended to be used for collecting textiles (now, put on hold due to the evaluation of producer responsibility). At first glance, combining these points can indicate a possible type II relationship. However, to reiterate, type I entails 'staying power', hierarchy, formal arrangements and a division of responsibilities mainly geared towards the municipal actors. Which all can be distinguished within the municipalities, in both waste plans and interviews. And, to reiterate, type II is most commonly situated within a milieu characterized by interdependency, or independency. Which seems less prevalent within all municipalities since the municipalities often holds the utmost responsibility for waste management, and initiates any agreements regarding textiles. Furthermore, the discussions held by the respondents is mostly tied to a possible future, or actions that has not been followed through, which does not indicate a current state of the relationships between local actors. Therefore, the general and overarching structure in all municipalities seems to indicate a type I relationship, present both before and after the amendment.

Some might suggest that this conclusion could be based on the awaited evaluation of producer responsibility. Meaning, that no changes have been undertaken due to a lack of guidance. However, since some differences between municipalities can be distinguished, while still maintaining the vertical structure, this does not seem to be the case. This specifically relates to the comparison between Stockholm and the other municipalities. Essentially, it is distinguishable that Stockholm has more traits that suggest a type II relationship, implying that differences can emerge despite no changes in the vertical structure. Important to note, however, is the discussion previously held concerning the relationships prevalent in Stockholm. Wherein uncertainties arose surrounding the discussion on how to

categorize the relationships. The reluctance in categorizing the municipality as a type II relationships embedded in a type I structure is predominantly based on the lack of evidence that validifies this statement. The dualistic representation does complicate the discussion, but not enough to change the conclusion regarding the staying power of type I relationships.

To summarize, increased attention aimed at textiles can be noticed, but concluding that the amendment has affected the type of relationship between the local actors engaged in textile waste management is to draw a premature conclusion. Currently, type I relationships seem to be the main form of relationship between local actors, in all municipalities. It is not, however, excluded that some municipalities can transform into type II in the future.

## 7. Discussion and future research

The conclusion of the thesis, that the 2018 EU waste directive amendment has had no or minor impact within the three studied Swedish municipalities, have bearing and offers opportunities for future studies. Elaborating research on the topic allows for a further understanding the issue of both textile waste management and responsibility within EU policies. Which in turn could also add to the growing literature on, for example, the implementation of environmental policy within the EU and the issue of responsibility in environmental policy.

Albeit extensive research has been undertaken, the thesis is missing some aspects that could have been interesting to include, and/or elaborate on. Firstly, an overview of the previous research showcased multiple research gaps, which this thesis did not have the capacity to explore. Secondly, the thesis focuses on local textile waste management in one member state, which albeit important, does not provide the full European picture. For a more detailed understanding of textile waste management in the EU, the framework used in this study could with great benefit be applied to more member states. To understand, for example, if/how the vertical dimension affects the local relationships. Or instead, applying it to other types of municipalities, to understand if/how the horizontal dimension has bearing on differences regarding division of responsibilities.

Thirdly, the waste plans used for the document analysis lacked some information detailing what different actors are practically undertaking. The waste plan does provide insights into how relationships are generally functioning within the municipality but does make it difficult to draw substantive conclusions regarding the division of responsibilities and relationships. Furthermore, not including an interview with the VA company from Gothenburg is a regrettable limitation in the thesis. Primarily since this makes the findings less comparable as the VA companies from both Stockholm and Malmö was included. Future research could therefore further examine the division of responsibilities, by surveying local waste management organizations. Adding to this argument, future research could also expand on the conclusions made in this thesis by focusing on non-state actors. For this thesis, the interview with Human Bridge merely served to illustrate the points made by the municipalities. Therefore, more in-depth knowledge of how non-state actors perceive textile waste management within the EU could serve to further understand the field. This point is especially poignant when remembering the discussions regarding illegal/unserious actors and the issue of outputs for the textiles that are collected.

Fourthly, using multi-level governance theory to understand local actors allowed for detailed, and comparable, understanding of the three concepts prevalent in all municipalities. It has proven fruitful, but future research could further expand the understanding of the field by incorporating more concepts or apply a different approach entirely. For example, a theory that incorporates more societal aspects, since waste management does not work within a void but is connected to all of society. Or, instead lending a theory from organizational theory that allows further focus on the actors involved, and the motivations of said actors, could also prove to be rewarding.

# References

### **Documents analysed**

- EUROPEAN PARLIAMENT & THE COUNCIL OF THE EUROPEAN UNION 2018. Directive (EU) 2018/851 of the European Parliament and of the Council of 30 May 2018 amending Directive 2008/98/EC on waste Official Journal of the European Union.
- GÖTEBORGSREGIONEN. 2020. *Göteborgsregionen minskar avfallet Avfallsplan för tretton kommuner till 2030* [Online]. Available: <u>https://goteborgsregionen.se/download/18.383dd332172be6571b81fe41/1592396157995/G</u>öte borgsregionen%20minskar%20avfallet\_avfallsplan%20för%2013%20kommuner%20till%202 030.pdf [Accessed 25/02 2021].
- GÖTEBORGSREGIONENS KOMMUNALFÖRBUND. 2010. A2020 Avfallsplan för Göteborgsregionen [Online]. Available: https://goteborgsregionen.se/download/18.31a99dbb12f97baa5428000503/1359468862595/G R-A2020.pdf [Accessed 12/02 2021].
- NATURVÅRDSVERKET 2018. Att göra mer med mindre, Nationell avfallsplan och avfallsförebyggande program 2018–2023 Reviderad 2020. Bromma: Naturvårdsverket.
- SFS 2020:614. Avfallsförordning. In: MILJÖDEPARTEMENTET (ed.).
- STOCKHOLM VATTEN OCH AVFALL. 2017. Avfallsplan för Stockholm 2017–2020 [Online]. Available:

https://www.stockholmvattenochavfall.se/globalassets/pdf1/riktlinjer/avfall/avfallsplan/sva072 -avfallsplan.pdf [Accessed 12/02 2021].

- STOCKHOLM VATTEN OCH AVFALL. 2020. Avfallsplan för Stockholm 2021-2024 Remissutgåva [Online]. Available: <u>https://start.stockholm/globalassets/start/om-stockholms-stad/politik-och-demokrati/stockholms-stads-anslagstavla/anslag-enligt-pbl-och-miljobalken/avfallsplan-for-stockholm-2021-2024-remissutgava.pdf</u> [Accessed 25/02 2021].
- VA SYD. 2016. AVFALLSPLAN 2016-2020 Burlövs kommun & Malmö stad [Online]. Available: https://malmo.se/download/18.486b3990169a51c37f81fc88/1556889067218/2016-06-16 Avfallsplan 2016-2020 slutversion.pdf [Accessed 12/02 2021].
- VA SYD. 2020. KRETSLOPPSPLAN 2021-2030 Tillsammans för en klimatneutral resurs- och avfallshantering [Online]. Available: <u>https://www.vasyd.se/-</u> /media/Dokument\_ny\_webb/Avfall-styrdokument/Kretsloppsplan-2021-2030.pdf [Accessed 25/02 2021].

### Litterature

- BACHE, I. 2004. Multi-Level Governance, Oxford: Oxford University Press, Incorporated.
- BERG, A. B., RADZIEMSKA, M., ADAMCOVÁ, D., ZLOCH, J. & VAVERKOVÁ, M. D. 2018. Assessment strategies for municipal selective waste collection - regional waste management. *Journal of Ecological Engineering*, 19, 33-41.
- BORÉUS, K. & BERGSTRÖM, G. 2018. *Textens mening och makt : metodbok i samhällsvetenskaplig text- och diskursanalys*, Lund : Studentlitteratur.
- BOSTRÖM, M. & MICHELETTI, M. 2016. Introducing the Sustainability Challenge of Textiles and Clothing. *Journal of Consumer Policy*, 39, 367-375.
- BUKHARI, M. A., CARRASCO-GALLEGO, R. & PONCE-CUETO, E. 2018. Developing a national programme for textiles and clothing recovery. *Waste management & research*, 36, 321-331.
- BULKELEY, H., WATSON, M., HUDSON, R. & WEAVER, P. 2005. Governing municipal waste: Towards a new analytical framework. *Journal of environmental policy & planning*, 7, 1-23.
- COM 2019. The European Green Deal.
- COM. 2020. Circular economy action plan [Online]. European Commission. Available: <u>https://ec.europa.eu/environment/strategy/circular-economy-action-plan\_sv</u> [Accessed 26/01 2021].

- COM. n.d, a. *First circular economy action plan* [Online]. European Commission Available: <u>https://ec.europa.eu/environment/topics/circular-economy/first-circular-economy-action-plan\_en</u> [Accessed 25/01 2021].
- COM. n.d, b. *Strategy for textiles* [Online]. Available: <u>https://ec.europa.eu/growth/industry/sustainability/textiles\_en</u> [Accessed 25/01 2021].
- DAHLBO, H., AALTO, K., ESKELINEN, H. & SALMENPERÄ, H. 2017. Increasing textile circulation—Consequences and requirements. *Sustainable Production and Consumption*, 9, 44-57.
- DELEON, P. 1999. The missing link revisited: Contemporary implementation research. *Policy Studies Review*, 16, 311-338.
- DUBOIS, SIMS, MOERMAN, WATSON, BAUER, BEL & MEHLHART 2020. Guidance for separate collection of municipal waste. Publications Office of the EU.
- DUBOIS, M. 2012. Extended producer responsibility for consumer waste: The gap between economic theory and implementation. *Waste management & research : the journal of the International Solid Wastes and Public Cleansing Association, ISWA,* 30, 36-42.
- ELMORE, R. 1979. Backward Mapping: Implementation Research and Policy Decisions. *Political Science Quarterly*, 94, 601.
- ESAIASSON, P. 2017. *Metodpraktikan : konsten att studera samhälle, individ och marknad,* Stockholm : Wolters Kluwer.
- EUROPEAN ENVIRONMENT AGENCY. 2019. *Textiles in Europe's circular economy* [Online]. Available: <u>https://www.eea.europa.eu/publications/textiles-in-europes-circular-economy</u> [Accessed 25/01 2021].
- GILLINGSJÖ 2016. Kommungrupps- indelning 2017. In: LANDSTING, S. K. O. (ed.) OMARBETNING AV SVERIGES KOMMUNER OCH LANDSTINGS KOMMUNGRUPPSINDELNING. Advant Produktionsbyrå.
- GÖTEBORGS STAD. n.d, a. *Kretslopp och vattennämndens uppdrag* [Online]. Available: <u>https://goteborg.se/wps/portal/start/kommun-o-politik/kommunens-organisation/forvaltningar/forvaltningar/forvaltningen-kretslopp-och-vatten/politik/namndens-uppdrag</u> [Accessed 26/2 2021].
- GÖTEBORGS STAD. n.d, b. *Det här kan du lämna på en återvinningscentral* [Online]. Available: <u>https://goteborg.se/wps/portal/start/avfall-och-atervinning/har-lamnar-hushall-avfall/atervinningscentraler/det-har-kan-du-lamna?uri=gbglnk%3Agbg.page.2a666942-e3d8-41f0-b863-401dda6ff235</u> [Accessed 26/2 2021].
- HOLE, G. & HOLE, A. S. 2020. Improving recycling of textiles based on lessons from policies for other recyclable materials: A minireview. *Sustainable Production and Consumption*, 23, 42-51.
- HUPE, P. 2014. What happens on the ground: Persistent issues in implementation research. *Public policy and administration*, 29, 164-182.
- HUPE, P., HILL, M. & NANGIA, M. 2014. Studying implementation beyond deficit analysis: The top-down view reconsidered. *Public policy and administration*, 29, 145-163.
- JACOMETTI, V. 2019. Circular Economy and Waste in the Fashion Industry. Laws, 8, 27.
- KANT HVASS, K. 2014. Post-retail Responsibility of Garments A fashion industry perspective. Journal of Fashion Marketing and Management: An International Journal, 18.
- KI, C., CHONG, S. & HA-BROOKSHIRE, J. 2020. How fashion can achieve sustainable development through a circular economy and stakeholder engagement: A systematic literature review. *Corporate Social Responsibility and Environmental Management*, 27, 2401-2424.
- LANTZ, A. 2013. Intervjumetodik, Lund : Studentlitteratur.
- LEAL FILHO, W., ELLAMS, D., HAN, S., TYLER, D., BOITEN, V. J., PAÇO, A., MOORA, H. & BALOGUN, A.-L. 2019. A review of the socio-economic advantages of textile recycling. *Journal of cleaner production*, 218, 10-20.

MALMÖ STAD. 2021. *Avfall och återvinning* [Online]. Malmö stad. Available: <u>https://malmo.se/Bo-och-leva/Bygga-och-bo/Avfall-och-atervinning.html</u> [Accessed 2021].

MARSHALL, C. 2016. Designing qualitative research, Thousand Oaks, California : SAGE.

- MONT, O. & POWER, K. 2010a. The Role of Formal and Informal Forces in Shaping Consumption and Implications for a Sustainable Society. Part I. *Sustainability*, 2.
- MONT, O. & POWER, K. 2010b. The Role of Formal and Informal Forces in Shaping Consumption and Implications for Sustainable Society: Part II. *Sustainability*, 2.

NATURVÅRDSVERKET. 2020. *Fakta om textilavfall* [Online]. Available: <u>http://www.naturvardsverket.se/Sa-mar-miljon/Mark/Avfall/Textilavfall/</u> [Accessed 26/10 2020].

NORDISK ÅTERVINNING SERVICE AB. n.d. *Min kommun* [Online]. Available: <u>https://www.nordiskatervinning.se/innhold/min-kommun/</u> [Accessed 28/2 2021].

PANARETOU, V., MALAMIS, D., PAPADASKALOPOULOU, C., SOTIROPOULOS, A., VALTA, K., PLEVRI, A., MARGARITIS, M., MOUSTAKAS, K. & LOIZIDOU, M. 2017.
Implementation and Evaluation of an Integrated Management Scheme for MSW in Selected Communities in Tinos Island, Greece. *Waste and Biomass Valorization*, 8, 1597-1616.

- PIATTONI, S. 2010. *The theory of multi-level governance : conceptual, empirical, and normative challenges,* Oxford, U.K., New York, Oxford, U.K., New York : Oxford University Press.
- PRZYDATEK, G. 2020. Assessment of changes in the municipal waste accumulation in Poland. Environmental science and pollution research international, 27, 25766.
- PUNZO, G., PANARELLO, D., PAGLIUCA, M. M., CASTELLANO, R. & APRILE, M. C. 2019. Assessing the role of perceived values and felt responsibility on pro-environmental behaviours: A comparison across four EU countries. *Environmental science & policy*, 101, 311-322.

RENOVA. n.d. Sorteringsguide för verksamhetsavfall [Online]. Available: <u>https://www.renova.se/produkter-och-tjanster/avfallshantering/sorteringsguide/</u> [Accessed 27/2 2021].

- ŠAJN, N. 2019. Environmental impact of the textile and clothing industry. *What consumers need to know*. European Parliamentary Research Service.
- SCB, S. n.d. *Kommuner i siffror* [Online]. Available: https://kommunsiffror.scb.se/?id1=null&id2=null [Accessed].

SCHREIER, M. 2012. Qualitative content analysis in practice, Los Angeles, Calif. London : SAGE.

- SMED 2016. Plockanalyser av textilier i hushållens restavfall. Norrköping: Svenska MiljöEmissionsData.
- STEPHENSON, P. 2013. Twenty years of multi-level governance: 'Where Does It Come From? What Is It? Where Is It Going?'. *Journal of European public policy*, 20, 817-837.
- STOCKHOLM VATTEN OCH AVFALL. 2019. Sortera textil och kläder [Online]. Available: <u>http://www.stockholmvattenochavfall.se/avfall-och-atervinning/sortera-dina-</u> sopor/privatkund/sortera-dina-sopor/textil-och-klader/ [Accessed 28/2 2021].
- THE MINISTRY OF FOOD AND ENVIRONMENT OF DENMARK 2020. Towards 2025: Separate collection and treatment of textiles in six EU countries.
- TITSCHER, S., MEYER, M., WODAK, R. & VETTER, E. 2000. *Methods of Text and Discourse Analysis,* London, United Kingdom, London: SAGE Publications Ltd.
- TORTOLA, P. D. 2017. Clarifying multilevel governance. *European Journal of Political Research*, 56, 234-250.
- TRIGUERO, A., ÁLVAREZ-ALEDO, C. & CUERVA, M. C. 2016. Factors influencing willingness to accept different waste management policies: empirical evidence from the European Union. *Journal of Cleaner Production*, 138, 38-46.
- WEBER, S., LYNES, J. & YOUNG, S. B. 2017. Fashion interest as a driver for consumer textile waste management: reuse, recycle or disposal. *International Journal of Consumer Studies*, 41, 207-215.
- WINTERNITZ, K., HEGGIE, M. & BAIRD, J. 2019. Extended producer responsibility for waste tyres in the EU: Lessons learnt from three case studies – Belgium, Italy and the Netherlands. *Waste Management*, 89, 386-396.
- YACOUT, D. & HASSOUNA, M. 2016. Identifying potential environmental impacts of waste handling strategies in textile industry. *Environmental Monitoring and Assessment*, 188, 1-13.

ZAPATA-BARRERO, R., CAPONIO, T. & SCHOLTEN, P. 2017. Theorizing the 'local turn' in a multi-level governance framework of analysis: a case study in immigrant policies. *International review of administrative sciences*, 83, 241-246.

# Appendix

# Appendix 1 - The coding frame

1-2 are applicable to the vertical actors, and 3-8 will be used to analysing the data.

	Concept	How to identify the concept/how to interpret the concept	Helps to assess
1	Vertical dimension	Is there a clear reference to a vertical relationship? This could be exemplified by references to institutions above, by e.g., referencing legislation that must be adhered to. Or are specific tasks delegated 'downward'. Are there mentions of reporting to other instances?	The relationships on the vertical dimension, if there is hierarchy clearly stated (this is also further highlighted by point 3 and 4)
2	Horizontal dimension	Is there a clear reference to a horizontal relationship? This could be exemplified by mentions of collaborations, between municipalities or other actors, or by creating possibilities for dialogues between actors.	If relationships on the horizontal dimension are purely between municipalities, and if other actors are supplementary or more inherent to the process. (Also further highlighted by point 3 and 4)
3	Hierarchy	Is there a clear reference to actions being guided by legislation from the vertical dimension? This could be exemplified by incorporating the directions and/or suggestions provided from an actor 'above'.	Type I relationships

4	Non-Hierarchical	Is there a mention of collaboration? If so, does this provide opportunities for actors to give feedback and/or to a large degree have freedom to arrange management themselves.	Type II relationships
5	Formal arrangements	How is management expressed? Meaning, is formal agreements the only way of partaking in management? (Could be exemplified by contracts signed between actors). Are there consequences if actors do not fulfil the agreements?	Type I relationships
6	Informal arrangements	Is there room for informal arrangements? Could be exemplified by allowing actors to partake in waste management without a formal agreement. Could also be exemplified by indications of fluid form of participation by actors.	Type II relationships
7	Division of responsibilities	Does the municipality handle most of the management? Are the changes undertaken focusing on reallocating functions amongst municipal actors? With other actors (besides municipalities) having a possibility to engage, but to a lesser extent.	Type I relationships
8	Divisions of responsibilities.	Is management divided amongst different actors, to an equal capacity? Are other actors, besides municipalities, seen as valuable for the work undertaken? Are the changes undertaken focusing on creating PPP's, where a wide range of actors can collaborate and compete, in coalitions?	Type II relationships

### Appendix 2 - Interview questions

NB. The interviews were undertaken in Swedish; the English translation is found in italics.

Denna intervju syftar till att få en mer detaljerad kunskap om arbetet med att samla in textilier, och samarbetet med andra aktörer. Vi vet sedan tidigare att många organisationer organiserar insamling av textilier, och det jag är specifikt ute efter att belysa är om det har skett någon förändring i relationerna mellan aktörer på den lokala nivån som följd av förändringarna av EUS avfallsdirektiv. Detta är alltså en del utav min Masteruppsats som del av mina studier på Göteborgs Universitet, och det som framkommer under intervjun kommer endast att användas till den.

This interview aims to provide more detailed knowledge about the work of collecting textiles, and collaboration with other actors. We know since previously that many organizations organize a separate collection of textiles, and I am specifically interested in highlighting if there has been a change in the relationships between actors on the local level, following the changes of the EUs waste directive. This will be part of my master's thesis, as a part of my studies in Gothenburg University, and the information shared in this interview will solely be used for that purpose.

Ditt deltagande är frivilligt, och du har all rätt att avbryta intervjun om du vill, under vilken del som helst. Du är inte heller bunden till att svara på alla frågor, utan kan välja att stå över.

Your participation is voluntary, and you have every right to abort the interview if you want to, during any part. You are not bound to answer every question but can choose to opt out.

Går det bra att jag spelar in denna intervju? (Så att jag kan återge det du har sagt korrekt)

Is it okay that I record this interview? (So that I can give an accurate account of what you have said)

Vi kommer att starta med några frågor om din bakgrund

We are going to start with a few questions about your background

Skulle du kunna säga ett par ord om din professionella bakgrund?

Can you talk a bit about your professional life?

(Följdfråga: Hur kom det sig att du hamnade här?

How come you ended up where you are today?)

Frågor om Avfallsdirektivet / Questions about the EU Waste directive

Du vet att jag kontaktade dig för att jag är speciellt intresserad av arbetet med textil återvinning, och hur EU lagstiftning inom området påverkar relationer mellan lokala aktörer, mer specifikt mellan kommuner och icke-statliga aktörer. Därför kommer vi nu att först diskutera hur du ser på relationen med EU och sedan fokusera mer på arbetet på lokal nivå, i relation till avfallsdirektivet. Jag vill påminna dig igen om att ditt deltagande är frivilligt, och känner du att du inte kan eller vill svara på någon av frågorna har jag full förståelse.

You know I contacted you because I have a special interest work with textile recycling, and in how EU legislation on the topic affects relationships between local actors, more specifically between municipalities and non-state actors. Therefore, we will first discuss your views on the relationship with the EU, and then focus more intently on the work done on the local level, related to the waste directive. I would like to remind you that your participation is voluntary, and if you feel that you cannot or will not answer some of the questions this is more than acceptable.

Hur upplever du generellt att direktiv från EU är en del av vardagsarbetet i din kommun?

How do you feel that, generally, directives from the EU are a part of the everyday work in your municipality?

Som en del av arbetet med grön omställning ändrade EU avfallsdirektivet 2018, hur mycket känner du till om det?

In 2018 the EU amended the waste directive, to focus on a green transition, how much would you say that you know about this?

En specifik ändring som direktivet förde med sig är att medlemsstater nu ska samla in textilier separat, för att öka möjligheter till återvinning. Vi vet att tidigare har mycket textilier dels har hamnat i restavfallet eller samlats in av icke-statliga aktörer. Därför finns det anledning att tro att denna ändring innebär att nationella regeringar och myndigheter, samt kommunala förvaltningar, måste arbeta på ett nytt sätt med insamling och återvinning av textilier.

Jag tänkte därför jag skulle börja fråga om svenska myndigheters initiativ, som en följd av ändringen, och hur detta påverkar kommunens arbete. Har du någon uppfattning om vilka initiativ från staten som har varit speciellt relevant för er kommun?

One specific change the directive brought was that memberstates are now to collect textiles separately, to increase the possibility to recycle. We know that previously a lot of textiles have ended up in the residual waste or been collected by non-state actors. Therefore there is reasons to believe that this change will mean that national government and institutions, and municipal governments, must work in a new way with collecting and recycling textiles. I thought I was going to start with asking about initiatives from the Swedish government, undertaken due to the amendment, and how this affects the municipalities work. Do you have any inclination what initiatives from the state which have been especially relevant for your municipality?

För Stockholm:

Jag tänkte även fråga om relationer till andra kommuner, specifikt relaterat till textilavfall, vet du hur ni arbetar med andra kommuner med textilavfall? Detta kan vara exempelvis dialoger mellan kommuner, eller om ni koordinerar hanteringen tillsammans?

I am also going to ask about the relationship between other municipalities, specifically regarding textile waste, do you know how you work with other municipalities? It can be, for example, the dialogue between municipalities, or if you coordinate management?

#### För Göteborg och Malmö

Jag vet att ni samarbetar med andra kommuner med generellt avfall, har du någon kunskap om detta omfattar även textilier? Detta kan vara exempelvis dialoger mellan kommuner, eller om ni koordinerar hanteringen tillsammans?

I know you collaborate with other municipalities in handling residual waste; do you have any knowledge if this incorporates textiles? It can be, for example, the dialogue between municipalities, or if you coordinate management?

För att fokusera på arbetet som ni gör specifikt i kommunen, är du insatt i vilka politiska beslut har fattats i din kommun som följd av ändringen, som berör insamlingen av textilier?

To focus more specifically on the work you undertake in the municipality, do you have any insight into what political decisions have been made by your municipality as a result of the change in the directive, that is related to the collection of textiles?

Känner du till hur dessa beslut har påverkat det praktiska arbetet med att samla in textilier?

Do you know how these decisions have affected the practical work with collecting textiles?

Vi vet att tidigare har mycket textilier oftast hamnat i restavfallet, eller samlats in av icke-statliga organisationer. Känner du till hur insamlingen och återvinningen av textilier ser ut i din kommun, i dagsläget? Vad kommunen gör och vad andra aktörer gör?

Do you know how the collection and recycling of textiles are undertaken in your municipality? What the municipality does and what other actors does?

( Om det ej nämns: Angående relationen med andra aktörer, har du någon insyn i hur denna fungerar? Om det sker exempelvis något informationsutbyte, eller om ni samarbetar med själva hanteringen?

Speaking of the relationship with other actors, do you have any knowledge in how this works? It can be for example, if you have any exchange of information, or if you collaborate with the management? )

Har du någon uppfattning om hur många icke-offentliga aktörer som arbetar med detta inom kommunen?

Do you have any inclination of how many non-state actors are working with textile waste in the municipality, currently?

Vad tror du, har mängden aktörer har ökat eller minskat de senaste åren?

What do you think, have the number of actors has increased or decreased the last few years?

För att runda av, så tänkte jag att vi skulle diskutera framtiden med textil insamling och återvinning i kommunen. EU har i förändringen av avfallsdirektivet angett mål om hur mycket textilier som ska samlas in, hur ser du på kommunens möjligheter att nå detta mål?

To conclude, I thought we were going to discuss the future of textile collection and recycling within the municipality. In the amendments, the EU have set goals for how much textiles that will be collected, how do you see the possibilities for the municipality to reach these goals?

Vad tror du skulle kunna öka insamlingen av textilier, samt återvinningen?

What do you think would increase the collection of textiles, and recycling?

Hur mycket tror du de icke-statliga aktörerna kommer bidra till att nå målen satta i avfallsdirektivet?

How much do you think that the non-state actors will contribute to reaching the targets set in the amendments?

#### Sammanfatta det vi talat om

Summarize what we have talked about

Finns det något annat än det vi har diskuterat nu som du tror är relevant, eller som du vill lyfta fram, som spelar roll för textilinsamlingen och återvinningen i din kommun?

Is there anything besides what we have discussed that you think are relevant, or that you want to highlight, related to the collection of textiles and recycling in your municipality?

#### Har du något mer du skulle vilja tillägga?

Is there anything more you would like to add?

Tycker du att det finns någon annan eller några andra jag borde prata med angående denna fråga, som också skulle kunna bidra till min uppsats?

Is there anyone else you think I should talk to regarding this question, which could also benefit my work?

### Appendix 3 - Letter of request for interviews



### UNIVERSITY OF GOTHENBURG

Elin Persson Adress Adress Email-adress Phone-number

Name

& Address

Of participant

Date

Bästa Mr./Mrs. NAME,

2018 ändrade EU avfallsdirektivet, vilket bland annat innebär att alla EU's medlemsländer ska organisera separat insamling av textilier. Detta har inte endast potential att gynna miljön utan påverkar även den dagliga verksamheten i kommuner. Då textilier tidigare ofta samlats in av icke-offentliga aktörer finns det anledning att tro nya avfallsdirektivet kommer innebära förändringar av kommunernas och andra aktörers medverkan och ansvar för den textila avfallshanteringen lokalt. Eftersom återvinning av textilier engagerar mig har jag bestämt att som ämne för min masteruppsats i Europakunskap vid Göteborg universitet studera hur avfallsdirektivets förändring påverkar den textila avfallshanteringens lokala organisering. Uppsatsen handleds av Urban Strandbergs vars kontaktuppgifter finns nedan.

Efter att ha läst på om avfallshantering i er kommun är mitt intryck att du har många erfarenheter på området. Det skulle därmed vara mycket värdefullt för mitt uppsatsskrivande om du hade tid för en intervju så att jag kunde få del av dina erfarenheter och perspektiv på avfallshantering.

Jag begär inte mer än en timme av din värdefulla tid och jag är mycket flexibel i den form intervjun skulle kunna ta. Vi kan tala över telefon, skype, teams, zoom eller så kan jag möta upp på ditt kontor. Min tanke är att göra intervjun mitten-slutet på mars och hoppas att vi tillsammans kan finna en lämplig tid som passar i ditt schema.

Jag uppskattar den tid du ägnat för att läsa detta mejl och skulle vara mycket tacksam om du har möjlighet att medverka till en intervju. Om du är intresserad vore det toppen om du sänder mig ett email så att vi kan korrespondera om tid som skulle passa för en intervju.

Med vänliga hälsningar

Elin Persson