# VOLUNTARY AGREEMENTS FOR THE ACHIEVEMENT OF SUSTAINABLE DEVELOPMENT GOALS: DUTCH GREEN DEALS AND WRAP AGREEMENTS

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## **ABSTRACT**

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#### **Abstract**

Voluntary environmental agreements (VEAs) are attracting considerable attention due to the complexity of the current environmental issues. Fostering collaboration between public and private parties is considered an effective means for achieving sustainable development goals. Even though VEAs have been studied in the past, little research has focused on the novel and successful agreements from the Netherlands (Green Deals) and the UK (WRAP agreements). Thus, this study aims at filling this gap of knowledge by exploring the way the Dutch Green Deals and WRAP agreements work and how their efficiency is measured.

The data in this qualitative study was collected through theme interviews. In total eight experts from the Dutch Ministry of Infrastructure and the Environment (3), the Department for Environment, Food and Rural Affairs in the UK (2), WRAP (2) and a consulting company in the Netherlands (1) were interviewed. The data was analyzed through thematic analysis.

The study focused on exploring the development, implementation, and performance phases of the agreements. The added value and the key differences of the studied phenomena were also examined. According to the research findings, the Green Deals and WRAP agreements promote active knowledge sharing and learning. Furthermore, governments prefer to use voluntary approaches for tacking environmental issues and for achieving progress through collaboration and innovation. Critical factors for successful implementation of the agreements are ambition, sharing, communication, access to expertise, trust and respect.

#### Keywords

voluntary environmental agreements, sustainable development, Green Deals, WRAP agreements, public-private collaboration

## Location

Jyväskylä University School of Business and Economics

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#### LIST OF ACRONYMS

BEUC = Bureau Européen des Unions de Consommateurs (The European Consumer Organisation)

C2025 = Courtauld 2025

CC = Courtauld Commitment

CPGD = Circular Procurement Green Deal

CSR = Corporate Social Responsibility

DEFRA = Department for Environment, Food and Rural Affairs

EEA = The European Economic Area

EPA = Environmental Protection Agency

ESAP = Electricals and Electronics Sustainability Action Plan

EU = European Union

EMAS = European Eco-Management and Audit Scheme

ICT = Information and communications technology

ISO = international organization for standardization

MVO Netherlands = CSR Netherlands

NEAs = Negotiated Environmental Agreements

NGOs = Non-Governmental Organizations

NSRR = North Sea Resources Roundabout

OECD = Organisation for Economic Co-operation and Development

P.A. = public administrator

RVO = Netherlands Enterprise Agency

SCAP = Sustainable Clothing Action Plan

UK = United Kingdom

UN = United Nations

UNEP = United Nations Environment Programme

VAs = Voluntary Agreements

VEAs = Voluntary Environmental Agreements

VEGAs = Voluntary Environmental Governance Arrangements

VEPs = Voluntary Environmental Programmes

WRAP = Waste and Resource Action Programme

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## 1 INTRODUCTION

## 1.1 Background of the study

Voluntary environmental agreements (VEAs) are a preferred form of governance for dealing with complex environmental risks (Potoski and Prakash, 2013). There are various types of VEAs, which purpose is to facilitate the interaction between the private and public authorities on environmental matters while avoiding some of the legislative limitations at the same time. Threat for stricter legislation, environmental problems and corporate social responsibility are some of the reasons that urge firms to seek ways to improve their sustainability and lessen their environmental impact. Thus, the popularity of VEAs is growing as new environmental targets are set in order to address various environmental issues and promote sustainable practices.

The subject of the current study is voluntary environmental agreements between governments and various stakeholders, such as enterprises and other organizations, aiming at achieving sustainable development goals. The topic was selected by the Finnish Ministry of the Environment. The purpose of the study is to examine existing voluntary agreements in the Netherlands (Green Deals) and WRAP (Waste and Resource Action Program) initiatives in the United Kingdom and to explore how these agreements work and how their efficiency is measured.

Both VEAs and stakeholder awareness and responsibility towards environmental issues have significantly evolved in the last 10 years. Successful VEAs from the Netherlands and from the UK prove that voluntary environmental agreements can be efficient and achieve competitive targets (WRAP, 2016a). Furthermore, the Dutch Green Deals has inspired the launch of the North Sea Resources Roundabout (NSRR). NSRR is an international voluntary agreement on secondary resources between France, Flanders, the United Kingdom and the Netherlands launched in March 2016 (Eijk, 2016). In addition, the Green Deal approach has gained international interest not only from the central governments of France, the United Kingdom, Germany, Belgium, Sweden and Finland, but also from the European Commission, the OECD and UNEP (Green Deals, 2016a). Not only replicating such VEAs in other countries will be beneficial from economical point of view but it will also have a significant positive impact on the environment. Implementation of ambitious and effective VEAs in the future will certainly be an effective means towards the achievement of sustainable development goals.

Despite the great interest, no one to the best of my knowledge has studied in detail the Dutch Green Deals and WRAP's voluntary agreements. The lack of research in this area is due to the fact that the Green Deal initiative has started in 2011 and many of the deals are still ongoing. Moreover, existing information on the Dutch Green Deals is primarily available in Dutch. On the other hand, WRAP's privacy policy protects the individual participants' information and

only the overall performance of all participants is published in the reports (WRAP, 2016b).

## 1.2 Research objectives

The concepts of the Dutch Green Deals and WRAP's VEAs are relatively new, thus little research has focused on these innovative VEAs. These two concepts are an interesting topic for a research because they represent an innovative and effective way of dealing with environmental issues. This study aims at gaining an overall understanding of the way the Green Deals and the voluntary agreements organized according to the framework introduced by WRAP work and how their efficiency is measured. More specific attention is paid on history and development of the agreements, key motivation and success factors, main responsibilities and challenges, performance evaluation and added value. The study also aims at finding the key differences between these two voluntary approaches. The Courtauld Commitment (CC) and the Circular Procurement Green Deal (CPGD) will be explored in more details for gaining a deeper understanding of the two different voluntary approaches. The CC has been established in 2005 in the UK and it is currently in its fourth phase (WRAP, 2016c). On the other hand, the CPGD in the Netherlands has been established in 2013. Hence, both agreements are being implemented successfully and there is sufficient data on their performance.

## Main research questions:

How the Dutch Green Deals and WRAP agreements work in general? How are the Circular Procurement Green Deal and the Courtauld Commitment agreement developed, implemented and evaluated?

### Sub-research questions:

- 1. How are the Dutch Green Deals and WRAP agreements (CPGD and CC in particular) developed and implemented?
- 2. What are the factors contributing for their successful implementation?
- 3. How is the performance measured and what is the added value?

## 1.3 Key concepts of the study

The aim of this chapter is to present briefly the main concepts relevant to the study. Voluntary environmental agreements (VEAs) are also found in literature

as voluntary environmental programmes (VEPs), voluntary environmental governance arrangements (VEGAs), negotiated environmental agreements (NEAs) or just voluntary agreements (VAs). The study focuses on the VEAs in the Netherlands, known as Green Deals and the VEAs in the UK, organized by WRAP (Waste and Resource Action Programme). The CPGD and CC are studied in more details.

## The Green deals

The Green Deal approach provides the Dutch companies, other stakeholder organization, local and regional government, and various interest groups the opportunity to work with the Central Government on sustainable growth and social issues. The Green Deal approach aims at removing the obstacles which prevent the utilization of various opportunities for sustainable economic development. The initiators of the Green Deals are the Dutch Ministries of Economic Affairs, Infrastructure and the Environment and the Interior and Kingdom Relations. Green Deals are used to supplement existing legislation, market and financial incentives and efforts for promoting innovation. The national government supports the Green Deals by removing legislative barriers and providing access to networks and the market. Netherlands has incorporated the Green Deals into country's green growth policy. (Green Deals, 2016b)

Since the launch of the Green Deal initiative in 2011 until June 2015, 185 Green Deals has been signed (Green Deals, 2015a). All of the Green Deals are self-funded and approximately 60 percent originate from the private sector. The Green Deals' average duration is two to three years and the main themes are energy, food, water, resources, biodiversity, mobility, bio-based economy, climate and construction.

The Circular Procurement Green Deal (CPGD) aims at promoting sustainably produced products and services. The participants in the Green Deal are committed to starting two circular procurement pilots of own choice, supporting knowledge sharing and learning and integrating circular procurement into organization's processes, policy and strategy (Circle Economy, 2016). Encouraging circular procurement involves overcoming cultural barriers and changing people's mindset. The key for triggering circular procurement practices is to think of items not as waste but as valuable resources. For instance, it is critical for people to overcome the notion that brand new products are always better than refurbished and reused ones. (European Commission, 2015.) The Green Deal's general requirements for participation and CPGD founding organizations are presented in TABLE 1 and TABLE 2 below.

TABLE 1 Green Deal's General Requirements (Green Deals, 2015c)

## Green Deals' General Requirements

- 1. The participant plays an active role in realizing the undertaken initiatives.
- 2. The project must be about sustainable usage of base materials, biodiversity, water, mobility, energy, climate, food, construction and bio-based economy.
- 3. The project must be profitable or have the potential to become profitable.
- 4. Results must be produced quickly.
- **5.** The project must result in a new economic activity (or activities) or in cost savings for businesses.

TABLE 2 Founding organization of CPGD (Circle Economy, 2016)

Founding organizations of Circular Procurement Green Deal		
Circle Economy	A social enterprise promoting circularity through development of various solutions	
Kirkman Company	Consulting company	
MVO Netherlands (CSR Netherlands)	An independent organization influencing companies to become more socially responsible	
NEVI	Professional organizations for procurement	
PIANOo	Expertise center in public procurement	

### Agreements organized by WRAP

WRAP is an independent organization established in 2000 and funded by the government to mediate voluntary agreements between governments, companies, and community groups. In addition to the voluntary agreements, which are the main focus in the current study, WRAP is also involved in research activities, consumer campaigns, grant-making and financial support. The subject of the study are the four voluntary agreements, the CC in particular, organized according to WRAP's framework. The agreements are presented in TABLE 3 below. (WRAP, 2016d)

TABLE 3 WRAP agreements (WRAP, 2016a)

Year	Agreements organized by WRAP	
2005 -	Courtauld Commitment (CC1, CC2, CC3 & Courtauld2025)	
2012 - 2015	Hospitality and Food Service Agreement	
2013 -	Sustainable Clothing Action Plan (SCAP)	
2014 -	Electricals and Electronics Sustainability Action Plan (ESAP)	

The Courtauld Commitment (CC) targets "improving resource efficiency and reducing waste within UK grocery sector". Moreover, it supports the 'zero waste economy' policy and greenhouse gas emission reduction targets. The participants in this agreement are leading retailers, brand owners, manufacturers and suppliers. The first phase of the agreement was launched in 2005, and currently CC is in its fourth phase – Courtauld2025. Facts and figures on the results achieved by Courtauld Commitment are presented in Appendix II. (WRAP, 2016c)

The aim of the *Hospitality and Food Service Agreement* was to support the sector in achieving waste reduction targets and recycling. The first target for the agreement was to reduce food and packaging waste by 5% by the end of 2015 (measured in CO2 emissions) against the 2012 baseline. The second target was to increase the recycling of food waste and packaging to at least 70% by the end of 2015. After the agreement was closed in 2015, WRAP continues to work with the sector on issues related to food waste reduction and recycling through the Courtauld2025. (WRAP, 2016e)

Sustainable Clothing Action Plan (SCAP) aims at improving the sustainability of clothing. SCAP brings together stakeholders across the clothing lifecycle and the four area of improvement are: design, metrics, consumer behavior, reuse and recycling. (WRAP, 2016f)

Electricals and Electronics Sustainability Action Plan (ESAP) was established in 2014 to improve the sustainability of the sector and deliver environmental and economic benefits. The top five significant products in terms of volumes sold and resources are: televisions, washing machines, laptop, computers, refrigeration products and mobile telephones. Thus, the agreement aims at enhancing product durability, minimizing product returns, motivating sustainable consumer behavior, and employing innovative business models for re-use and waste reduction. (WRAP, 2016g)

## 1.4 Structure of the study

The study is structured in five main chapters. The introduction gives an overall overview of the VEAs and their role in the environmental management. The objectives of the study, the key sub-research questions and a brief explanation of the main concepts and actors are also presented in the introduction.

The theoretical framework chapter reviews existing literature and summary of key findings both on VEAs and stakeholder participation in VEAs. In this section the different types of voluntary agreements, key success factors, risks and opportunities and methods for measuring efficiency are presented. Then the stakeholder participation in the environmental management is explored through the angle of corporate's perspective on VEAs and Reed's best practices for participation.

The third chapter explains main methodological choices in the study, such as research design, data collection method and data analysis method. Furthermore, a detailed explanation of the data collection process is also provided. The

research findings which provide answers for the main research questions and the sub-research questions are presented in chapter four.

Finally, in the conclusions chapter a summary of the key research findings, discussion, and implications for policy-makers and private actors are provided. This chapter ends with an evaluation of the credibility of the study, limitations and suggestions for future research.

## 2 THEORETICAL FRAMEWORK

This chapter reviews previous literature and explores different aspects related to voluntary environmental agreements (VEAs). Firstly, the different types of VEAs are presented. Secondly, conditions for successful implementation and the added value of VEAs are examined. Then, different aspects in regard with VEAs' performance are explored. Due to the immense importance of the participants in VEAs, attention is paid on the corporate's perspective on VEAs in order to understand companies' motivation for participating. Finally, a general view on stakeholder participation in environmental management and best practices for participation are reviewed.

## 2.1 Voluntary environmental agreements

Voluntary approaches are a rather new instrument for environmental management. Previous work has mainly focused on VEAs implemented in 1990s and early 2000s. According to Dalkmann et al. (2005), Potoski and Prakash (2013), and BEUC (2006), VEAs are effective means of addressing environmental issues in a quick and flexible manner, especially when compared to the process of enactment of legislation. For industries VEAs are a way to increase consumer trust. By participating in VEAs, companies not only contribute towards the improvement of the environment beyond official legislation but also communicate their commitment to environmental values. (Prakash and Potoski, 2011.) The possibility of gaining benefits, such as regulatory reliefs, higher market share, customer loyalty and higher product prices, is the main motivator for the firms to commit to the competitive environmental targets (Gunnigham, Kagan, & Thorton, 2003).

The different types of VEAs share the four common characteristics presented in FIGURE 1.

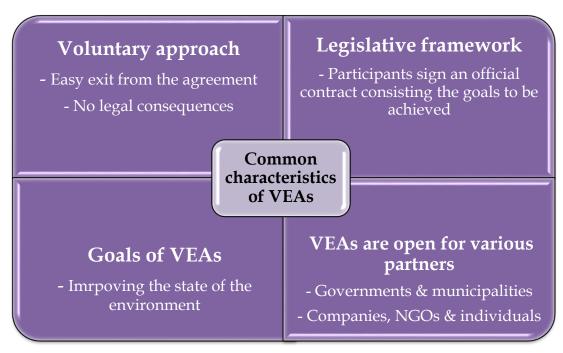


FIGURE 1 Common characteristics of VEAs (Karamanos, 2001)

## 2.1.1 Types of VEAs

A comprehensive categorization of various voluntary approaches provided by Croci (2005) includes *voluntary public schemes, negotiated agreements, unilateral commitments, unilateral commitments recognized by the P.A., third party initiatives,* and *private agreements*. The concepts of the six voluntary approaches are presented in FIGURE 2.

# Voluntary public schemes

- Developed by regulators
- Open for companies
- Participants gain administrative, economic or information access benefits

Negotiated agreements

- Formed between the public and private parties
- •Open for more participants
- Environmental objectives are agreed by both parties

Unilateral committments

- Considered a VEA only under certain circumstances e.g. approval by the regulator
- •The VEA and its targets are set by the industry
- A self-regulation

Unilateral committments recognized by the P.A

- •P.A. can perform monitoring
- P.A. can set guidelines for implementation

Third party initiatives

- •Designed by third parties
- Open for participation

Private agreements

- Reached through direct bargaining between polluter and pollutees
- No public intervention

FIGURE 2 Voluntary approaches with characteristics of VEAs (Croci, 2005) Dutch Green Deals, the CPGD in particular (negotiated agreements) and WRAP's agreements (third party initiatives) are subject of the study.

*Voluntary public schemes* are designed by regulators and provide companies the opportunity to participate. The participation can be limited geographically,

industrially, or technologically. Participants in the schemes might acquire permits easier, avoid strict monitoring, and get taxation benefits, training or technical assistance. In case of non-compliance, participating firms may be excluded from the program. Similarly to Croci (2005), Lyon and Maxwell (2003) point out that the involved companies benefit from technical assistance and positive publicity from the government. The European Eco-Management and Audit Scheme (EMAS) and various eco-labels are examples of voluntary public schemes. (Croci, 2005)

Participants in the *negotiated agreements* commit to achieving certain environmental targets which are negotiated and approved by both the companies and the regulator. According to Brink (2002), negotiated agreements have three functions - bridging (a step to further legislation), supporting (support the implementation of legislative requirements) and independent (agreements used instead of legislation). Similarly to the voluntary public schemes, the participants might gain economic, administrative or information access benefits. Negotiated agreements can be either binding or non-binding. An example of binding agreement is the widely used Dutch covenants. The covenants are agreements between the Dutch government, licensing authorities and certain industry sectors. The covenants are binding and can be enforced in the case of non-compliance. In contrast, the Dutch Green Deals are non-binding and participants can exit the agreement at any given time without any consequences. (Croci, 2005) The Dutch Green Deals, in particular the Circular Procurement Green Deal, plays a central role in the current study and more attention to this voluntary instrument will be paid in the following chapters.

*Unilateral commitments* can be adopted by the company as a code of conduct aiming at improving the environment or as a program. Unlike the previous two types of VEAs, the targets for the unilateral commitments are set by the industry. The commitment to a specific programme can be expressed by using a logo. Participants benefit from gained credibility if the administrative regulator recognizes the program. When the unilateral commitments are recognized by the public administrator (P.A.) they gain credibility. It is possible that the P.A. also monitors the commitment and sets guidelines regarding the implementation. (Croci, 2005)

Third party initiatives are agreements designed by private organizations which do not have regulation authority. For example, the third party could be an international organization for standardization (ISO), NGO or an international organization. The agreement is open for participation. Participants in third party initiatives gain only image benefits and access to management improvement procedures. Examples of third party initiatives are WRAP agreements in the UK, ISO 14000 and the UN Global Compact. (Croci, 2005)

Polluters and pollutees reach *private agreements* through direct negotiations. Specific about this type of agreement is that solutions and compensations are agreed without the need of governmental interference.

This study aims at exploring negotiated agreements (Green Deals) and third party initiatives (WRAP agreements). However, in previous studies VEA is referred as a public-private cooperation without further categorization of VEA

types. Due to the scarce amount of former literature on the topic, relevant studies on VEAs which are considered to provide valuable insights are included in the literature review section.

## 2.1.2 Successful implementation and added value

A study conducted by Bresser et al. (2009) reveals positive evaluations of VEAs in the Netherlands. The study is focused on voluntary agreements before the introduction of the Green Deal initiative in 2011. The purpose of the study was to explore the degree of success of voluntary environmental agreements in the Netherlands and to what background factors it was related. The scope of the study covers 70 negotiated agreements signed between the Ministry of the Environment or the Ministry of Public Works and private actors. The findings of this study reveal positive environmental results in terms of ambition, compliance, goal attainment and environmental behavioral change. Surprisingly, high ambition is associated with behavioral change and compliance. (Bresser et al. 2009) Similarly to Bresser et al. (2009), Dalkmann et al. (2005) examine four carefully selected case studies from four European countries and based on the results determine success factors for VEAs. The findings of the study correspond to the conclusions of Bresser et al. (2009), that VEAs' success is primarily dependent on ambitious targets and compliance. Thus, Dalkmann et al. (2005) distinguish five success factors for setting ambitious targets and complying with them.

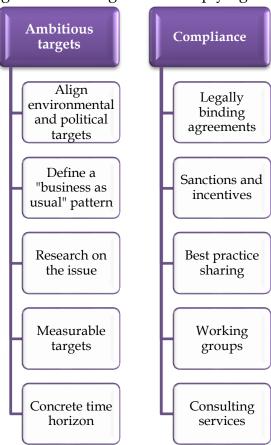


FIGURE 3 Success factors (Dalkmann et al. 2005)

First and foremost, for ensuring the success of a VEA is to align the environmental and political targets. Secondly, "a business as usual" pattern needs to be defined in order to avoid easy targets. Furthermore, extensive research on the matter and analyzing the potential measurable targets prior to the negotiations will increase the likelihood of setting ambitious targets. Bresser and Bruijn (2005) also point out the importance of clear and quantified targets for the outcome of VEAs. In addition, setting a concrete time horizon helps for selecting a realistic, achievable and ambitious targets. Compliance with the targets is the main variable that determines the success of VEAs. Legally binding agreements have a high level of compliance. Other factors that might influence the participants' level of compliance are sanctions and incentives, which can be either incorporated in the VEAs or exist externally. (Dalkmann et al., 2005)

Immerzeel-Brand (2002) explores the success factors of VEAs through hypotheses testing. Her study is focused on a Dutch covenant for reduction of SO2 and NOx emissions signed in 1990. The covenant proves to be successful as in 2000 reaches its goals. Hypotheses testing indicated that certain factors are responsible for the successful outcome of the VEA. The first factor, part of the *policy hypothesis*, is the presence of trust and respect. Similarly, Brink (2002), Bresser and Bruijn (2005) and Dalkmann et al. (2005) agree that VEAs build trust between institutions, create higher appreciation for the environment and achieve results beyond the legislative requirements. In fact, often VEAs address environmental issues which are not subject of regulation.

Brink (2002), Dalkmann et al. (2005) and Bresser et al. (2009) emphasize certain aspects of VEA's implementation that ensures both the success of the agreement and add value to the process. For instance, sharing best practices, establishing working groups and having access to consulting services significantly improve mutual understanding and learning outcomes, and thus contribute for the successful outcome of VEAs. This leads to the adoption of new technologies and sustainable development practices both on company and industry levels for addressing environmental issues.

Dalkmann (2005) and Bresser and Bruijn (2005) agree that VEAs are more cost-efficient and flexible than command-and-control regulations. Their flexibility and cost-efficiency makes them suitable for industries sensitive to economic changes and competition. Additionally, Bresser and Bruijn (2005) identify several conditions for the success of VEAs based on empirical research of twelve case studies from six European countries. In addition to already mentioned aspects, the authors add the importance of strong motivation, clear understanding of the environmental problem, solving conflicts during the negotiation phase, and being in touch through regular communication. The conclusions of Bresser and Bruijn (2005) correspond with the second factor of the policy hypothesis by Immerzeel-Brand (2002), that the participants need to be problem-solving oriented. Furthermore, the *instrument hypothesis* outlines the importance of existing alternative legislative instrument which is considered as a viable option for the successful implementation of VEAs. This is further supported by Segerson and Miceli (1998) and Segersson and Alberini (2002) who believe that VEAs might be as efficient as official legislation in the case of a credible regulatory threat.

Finally, the *sectoral hypothesis* emphasizes the importance of homogenous sector and a strong sector association. The author concludes that even though these three hypotheses provide a basis for the positive outcome of VEAs, the success factors are not limited only to the factors mentioned above. The three hypotheses are tested in several studies and are thus recommended as a tool for policy makers to evaluate the potential success or failure of a VEA. (Immerzeel-Brand, 2002) The summary of the success factors and the added value of VEAs are presented in the TABLE 4 below.

TABLE 4 Success factors and added value of VEAs (Immerzeel-Brand, 2002; Brink, 2002; Dalkmann et al., 2005; Bresser et al, 2009; Bresser and Bruijin, 2005)

Success factor	Added value
Building trust and respect	Mutual understanding and learning out-
	comes
Sharing best practices and access	Adoption of new technologies and sus-
to expertise	tainable development practices
Establishing working groups	Problem-solving attitude
Strong motivation and clear un-	Creating higher appreciation for the envi-
derstanding of the environmental	ronment
problem	
More cost-efficient and flexible	Bridging the gap between local needs and
than command-and-control regu-	existing legislation
lations	
Threat of alternative legislative	Address issues and achieve results be-
instrument	yond legislative requirements
Homogenous sector and a strong	Suitable for industries sensitive to eco-
sector association	nomic changes and competition

#### 2.1.3 Performance

### Monitoring and evaluation

Bresser and Bruijn (2005) point out that special attention needs to be paid on monitoring progress and evaluation of VEAs. Dalkmann et al. (2005) identify three factors that ensure successful monitoring. Firstly, there should be a transparent reporting procedure. Secondly, a methodology to secure certain standard should be present. Thirdly, there is a need for independent verifier. The importance of monitoring is also emphasized by Rezessy and Bertoldi (2011). Their study focuses on the effectiveness of VEAs in the field of energy efficiency and emission reduction in Europe. The authors conclude that rigorous and credible monitoring and evaluation of the outcomes are key factors for VEA's effectiveness (Rezessy and Bertoldi, 2011).

Official evaluation of the achieved results affects positively on the level of compliance and the efficiency of VEAs (Croci, 2003). The terms efficiency and effectiveness are often used for evaluating VEAs performance. Efficiency refers to achieving certain results or targets by avoiding unexpected loss of resource and time, whereas effectiveness refers to the achievement of successful results (Perrels, 2001). However, the nature of VEAs often creates difficulties in assessing their effectiveness. Not only VEAs have different objectives and employ different approaches but also there is discrepancy in culture, politics, economics, and the environment. For instance, the different characteristics of industry sectors, institutional structures, public-private cooperation, business culture, and the environmental awareness influence the effectiveness of VEAs. Thus, it could be concluded that the country is the main factor influencing VEA's effectiveness. (Croci, 2003)

The EEA's framework for the assessment of the environmental effectiveness of VEAs (EEA, 1997) states that the assessment can be done against alternative policy instruments scenario (taxes and regulations), "business as usual", and the reference situation prior to the agreement. Hence, the following three aspects should be taken into consideration: the net impact of VEAs in comparison with the baseline, the economic characteristics of VEAs, such as incentives and impacts, and the wider outcomes stemming from VEAs. Prakash and Potoski (2011) also share the view that the effectiveness can be measured by acknowledging the positive environmental impacts beyond what would have happened without the VEA in place. However, such assessment is often speculative due to lack of credible data. (EEA, 1997) For instance, the following two factors undermine the data credibility. Firstly, quite often participants in VEA commit themselves to targets far beyond the official legislation. Secondly, signatories for the same agreement might be both environmental leaders and environmental laggards. As a result, the progress made by the laggards, in the VEA might exceed the progress made by the environmental leaders when evaluating the achieved results after the established baseline. This is due to the different starting point prior to the agreement. For instance, environmental leaders are more actively involved in different environmental projects before the VEA. In other words, when entering in the VEA their previous environmental commitments and achievements are not taken into consideration. (Lenox and Nash, 2003)

The non-enforceability of most VEAs is the key reason for questioning their level of efficiency in regard to environmental protection. Glachant (2007) studies the effectiveness of non-enforceable VEAs when companies engage as a result of a legislative threat of a pollution quota. It is also assumed that the polluter is in the position of influencing the legislative process by being a part of a lobby group. The results of this study indicate that non-binding VEAs are useful in the case of conflicting political interests but still uncertain instruments for environmental protection. For instance, non-binding VEAs are common in climate change policies but legislation is preferred in the case of a significant threat (Glachant, 2007).

Similarly, McEvoy and Strandlund (2010) share the opinion that enforced VEAs are more efficient than the non-enforced and further claim that under certain circumstances enforced VEAs could be more efficient than regulatory instruments, such as emission tax. This perspective is based on the connection between the efficiency of VEAs and the costs of enforcement and can be valid under the following circumstances. Firstly, the enforcement costs of the VEA must be borne by the participating parties, for example the government and the firm. Secondly, a third party enforces the VEA. Thirdly, the third party must have power over the government and closely monitor the implementation of the VEA, so in the case of non-compliance, the third party is able to force sanctions.

The research conducted by McEvoy and Strandlund (2010) contribute uniquely to the existing literature on the efficiency of VEAs. In fact, the results of their research contrast previous findings suggesting that VEAs are always developed as a means for reaching regulator's environmental objectives (Dawson and Segerson, 2008). McEvoy and Strandlund (2010) emphasize that the chances of forming a VEA in the case where the participating parties are bearing the responsibility of the enforcement costs are slight. Hence, they conclude that in the rare event that such agreement is reached, it's potential to be even more successful than tax on emissions skyrockets. However, future research on that topic is needed in order to confirm the findings of McEvoy and Strandlund (2010).

Brand et al. (1998) develops a theoretical framework for evaluating VEAs' performance, which includes set of criteria for analyzing the performance of VEAs. This framework is usually used for analyzing the policy process. The process of policy development, including evaluation criteria for VEA's performance is presented in FIGURE 4.

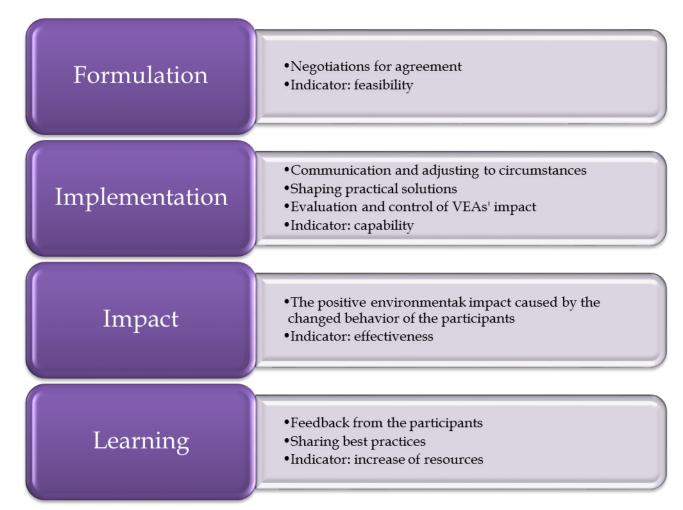


FIGURE 4 Policy process and evaluation criteria for VEA's performance (Brand et al., 1998)

The aim of the *formulation process* is through negotiations to raise awareness of the possibility of an agreement. Successful negotiations between representatives from the government and the target groups (companies, municipalities, or NGOs) lead to the creation of VEA. The performance indicator is feasibility. During the *implementation process* solutions according to the circumstances and the goals of the agreement are developed. For the success of VEA, it is essential that VEA's goals are aligned with the policy goals. The performance indicator is capability and it concerns the quality of VEA's application. The positive environmental impact as a result of participants' behavioral changes is measured in the *impact process*. The performance indicator is effectiveness. Finally, in the *learning process* the participants give feedback about the three previous processes. Learning is enhanced significantly by sharing best practices. The performance indicator is the increase of resources, such as information dissemination, innovations, and enhanced trust and respect. (Immerzeel-Brand, 2002)

#### **Risks**

Dalkmann et al. (2005) identify regulatory capture, legitimacy issues, free-riding and agreements' transaction cost as key risks associated with VEAs. Börkey et al. (2000) define the risk of regulatory capture as the situation in which the environmental target is set to be similar to the "business as usual". The risk of regulatory capture, lack of transparency, legitimacy issues, and criticism increases significantly if third parties, such as NGOs and local communities are not participating in the VEA. According to Brink (2002), the aspects encouraging free-riding and "business as usual" are the data aggregation and the lack of sanctions. Reports containing aggregated data illustrate the overall performance of all participants. That encourages minimum or no actions at all towards achieving the agreed targets (Brink, 2002). Lastly, participants in VEAs also face the risk of high transaction costs associated with long negotiations and resources engaged in monitoring the progress, compliance and effectiveness of VEAs (Croci, 2003; Dalkmann, 2005).

Brink (2002), BEUC (2006) and Heijden (2012) identify lack of obligations for industries, limited participation, lack of efficient evaluation and enforcement as the main drawbacks of VEAs. Due to the voluntary nature of the agreements, companies and industries are not obligated to participate in VEAs (BEUC, 2006). In fact, too strict rules for the signatories and lack of alternative regulation for non-signatories can motivate companies to continue their non-sustainable practices and decide not to join the VEA (Brinks, 2002). In some cases, VEAs are preferred by industries only in the case of a threat of stricter legislation and costly policies. On the other hand, the limited participation might result in a political stress as certain parties are excluded from the agreement and hence cannot obtain the benefits associated with participation. (BEUC, 2006.) Lack of sanctions also motivate companies to participate in VEAs aiming at misleading their customers about firm's environmental values and attributing false sustainable claims about company's products and services (Delmas and Burbano, 2011). The latter is also known as "greenwashing".

## 2.1.4 Corporate perspective on VEAs and motivation

A considerable amount of literature has been published on the reasons for companies and industries to enter into VEA. In this section the corporate perspective on VEAs is explored. According to Karamanos (2002) VEAs provide various benefits to the participating companies, such as direct incentives, economic savings, strategic marketing, organizational culture, and public recognition. The government plays an important role in providing some of these benefits. According to Heijden (2015), the five roles of the government are administrative support, financial support, monitoring and enforcement, marketing and customer. The administrative and financial support of the government provides direct incentives and legitimacy for the participants in VEAs (Heijden, 2015). Direct incentives refer to the technical, information and financial assistance companies gain through participation

in VEAs. Moreover, participation in VEAs enables companies directly to negotiate with the public administrator and reduce their administrative costs associated with environmental permits. (Karamanos, 2002.)

Participants in VEAs utilize economic savings as a result of adoption of new technologies, development of new projects and penalty avoidance. For instance, participating in VEAs limits the exposure of firms to major environmental accidents, thus companies improve their image and avoid penalties and strict monitoring (Karamanos, 2002.) *Monitoring and enforcement* is the third role of the government. However, strict monitoring and enforcement would contradict the voluntary nature of VEAs. Instead, Heijden (2015) promotes "self-monitoring, administrator monitoring, monitoring by a third-party hired by the participant, independent third-party monitoring, and government monitoring".

Strategic marketing is another incentive for companies to get involved in VEAs. Participation in VEAs reduces consumer pressure, creates responsible image and improves customer relationship. For instance, firms participating in VEAs are considered to be responsible, which may convince the regulator that further legislation is not needed. Furthermore, through VEAs firms might adopt innovative techniques that lead to market expansion and competitive advantage. (Karamanos, 2002) The *marketing role* of the government contributes for the promotion of the VEA and its participants. Commitment to environmental values as a result of participation in VEAs often influences the organizational culture. As a result of committing to environmental values not only companies change their organizational culture but also receive public recognition. (Karamanos, 2002). Finally, the *customer role* of the government is related to setting certain sustainability criteria for companies' products and services. That might lead to the adoption of sustainable procurement policies. (Heijden, 2015)

Another perspective on corporate's participation in VEAs is provided by Fleckinger and Glachant (2011) who explore companies' willingness to engage in voluntary agreements for political reasons. Their research outlines that VEAs are preferred by companies only in the case that VEAs are less costly than compliance with formal legislation (Fleckinger and Glachant, 2011). Another incentive for companies to choose to enter into VEA is the fact that non-compliance does not have instant effect on the company. On the contrary, once non-compliance is confirmed, it takes several years before the company experiences the legislative consequences. Thus, VEAs could be viewed as a strategy to postpone the cost of legislation (Glachant, 2006).

According to Grepperud (2001), participating in VEAs enables the regulator and the polluter to exchange bargaining power. Environmental legislation is viewed as an external cost for the industry, which will result in labor layoffs. Grepperud (2001) argue that in a situation that labor layoffs are an unwanted result by the regulator, a consensus is needed to be reached by the two parties. The polluting industry is having the power over employment decisions, while the regulator has power over environmental goals. Hence, negotiations on the VEA will decrease the degree of the environmental targets to be achieved by the industry and in exchange the industry will make a compromise in regard to industry layoffs. VEA based on exchanging powers is likely to be successful due to

the fact that a win-win situation is achieved through negotiations. As a result, high motivation is expected from the polluting industry to comply with the negotiated environmental objectives. (Grepperud, 2001)

A study conducted by Lyon and Maxwell (2003) suggests that VEAs are a weak instrument of environmental regulation and they are used only in the case that industry's political resistance hinders the adoption of official legislation. However, their research is limited only to the US voluntary programs addressing global warming, developed by the Environmental Protection Agency (EPA). The authors conclude that in the absence of political resistance taxes are better instrument than VEAs. Moreover, they state that taxes force inefficient companies to leave the industry and promote the adoption of environmental technology, while VEAs can do only the latter. Nevertheless, the authors state that VEAs are more efficient than taxation in the cases that raising public funds and the environmental technology to be adopted are rather inexpensive, and there is a significant political resistance against taxes. (Lyon and Maxwell, 2003)

## 2.1.5 Reed's best practices for participation stakeholder participation in environmental management

Stakeholder participation is responsible for flexible and transparent decision-making. Reed (2008) conducts a literature review and defines eight best practices for stakeholder participation in environmental management.

TABLE 5 Reed's best practices for stakeholder participation (Reed, 2008)

	Best practices for stakeholder participation		
1.	Stakeholder participation needs to be underpinned by a philosophy that emphasizes empowerment, equity, trust and learning		
2.	Where relevant, stakeholder participation should be considered as early as possible and throughout the process		
3.	Relevant stakeholders need to be analyzed and represented systematically		
4.	Clear objectives for the participatory process need to be agreed among stakeholders at the outset		
5.	Methods should be selected and tailored to the decision-making context, considering the objectives, type of participants and appropriate level of engagement		
6.	Highly skilled facilitation is essential		
7.	Local and scientific knowledges should be integrated		
8.	Participation needs to be institutionalized		

Firstly, participants need to be encouraged to contribute to the environmental management practices by possessing the technical capabilities and the freedom to implement changes. For example, the participants need to be provided with proper education and technical assistance in case they lack specific skills and know-how, such as environmental management skills. According to the first practice, the participation also needs to be fueled by equity, trust and learning.

The second practice emphasizes the importance of engaging with stakeholders in environmental decision making as early as possible. If the project is not joined from the start by interested parties there is a risk that project's goal does not correspond with stakeholder's needs and priorities. In fact, engaging with stakeholders already in the planning and preparation phases has a significant positive impact on the final result of environmental decision-making.

The third practice focuses on the careful selection of the stakeholders. Relevant stakeholders need to be analyzed and represented systematically, for example by using stakeholder analysis. According to Reed (2008), stakeholder analysis is a process which identifies and prioritizes the most relevant individuals and groups for a certain environmental issue. After the relevant stakeholders are identified, the next step of the stakeholder analysis is to classify them. Social Network Analysis (SNA) is a useful tool for classification of different stakeholder groups. Through SNA different patterns of communications, trust and influence between actors in social networks are revealed. (Reed, 2008)

The fourth practice is related to setting clear objectives for the stakeholder participation prior to the engagement in environmental-decision making. The negotiations between participants are of paramount importance for the end result. Environmental objectives developed through communication and discussion has higher probability to be achieved if the involved parties are committed to the main goal. This idea is also supported by Grepperud (2001) who states that voluntary environmental agreements based on exchanging bargaining power are considered more successful owing to the fact that negotiations often lead to win-win situations for the involved parties, resulting in higher motivation.

The fifth practice focuses on the importance of choosing the most appropriate participation methods according to the degree of stakeholder engagement, the environmental objective and the participating stakeholders. Participation methods need to be adapted to the cultural background of the stakeholders involved. In addition, the stakeholder participatory process will also benefit from flexibility and adaptation in relation to changes in circumstances and goals. (Reed, 2008)

The sixth best practice outlines the importance of facilitation during the participatory process. Various conflicts may arise during the participation process, thus mediation and communication skills are essential. It is preferable that the facilitator is objective, open to various points of views and working towards successful completion of the stakeholder participatory process. Also, establishing and agreeing on ground rules might significantly facilitate the problem-solving.

The seventh practice is related to the integration of scientific and local knowledge, which contributes to better understanding of complex issues. This might also balance the power distribution and improve participants' motivation.

Finally, the eight practice point out that participation needs to be institutionalized. Currently, the stakeholder participation is being integrating into policies. However, the requirements for participatory processes are contrasting with institutional structures of the organizations responsible for implementing these policies. Thus, limitations to the participatory process arise due to the organizational culture of the participating parties. This limitation could be overcome if the participatory processes for environmental management are widely negotiated and democratic, and common goals are chosen by all the participating parties. (Reed, 2008)

## 3 RESEARCH METHODOLOGY

The aim of this chapter is to explain the methodological choices used in this study. Firstly, the chosen research method is introduced. Secondly, the data collection method, interviewee selection, and the content of the theme interviews are presented. Finally, the data analysis method is explained.

## 3.1 Research Strategy and Approach

The current study focuses on exploring the way the Green Deals, in particular the CPGD and WRAP agreements work in general and how their efficiency is measured. Due to the lack of previous research and the exploratory nature of the study, a thorough understanding of the phenomenon in place is needed for answering the main research questions and for knowledge creation in this fairly new research field. Hence, qualitative research approach was chosen as the most suitable alternative for the purpose of the study.

Qualitative research is "an umbrella term for a wide variety of approaches to and methods for the study of natural social life" (Saldana et al. 2011). Unlike quantitative research which presents the results in a numerical form, the aim of qualitative research is to understand the meaning of a phenomenon from the perspective of the involved parties (Merriam, 2014). In qualitative research deductive, inductive or abductive reasoning can be employed. The deductive approach concludes from existing facts and proofs. In contrast, the inductive reasoning is based on exploration of the evidence and generation of knowledge. The third approach, called abductive is built on "exploratory hunches based on clue". (Saldana et al. 2011.) Merriam (2014) considers the inductive approach suitable for a research which goal is gathering data for the purpose of building a concept or a theory. Usually, the research findings as a result of inductive approach are among others provided in the shape of themes, categories, and theory about a specific area of practice (Merriam, 2014). Thus, an inductive reasoning was chosen as most suitable in regard to the aim of the study.

## 3.1.1 Data collection

The data for this study was collected through semi-structured online interviews, referred as theme interviews. The aim of the theme interview is to "obtain descriptions of the life-world of the interviewee with respect to interpreting the meaning of the described phenomenon" (Steinar, 2007). In theme interviews the researcher develops main questions relevant to the themes central to the study. In addition, more specific follow-up questions for reaching deeper understanding of the certain phenomenon are generated. Theme interviews allow the researcher to flexibly ask open-ended questions and change the sequence of the questions depending on interviewees' responses. (Salmons, 2015) Such in-depth

interviewing is characterized with high level of informality. The exploration nature of theme interviews promotes friendly discussion and allows interviewee's opinion and views to unfold during the conversation. (Marshall and Rossman, 2006)

The total number of the Green Deals in Netherlands is over 200. However, not all of them are suitable for the purpose of the study. For example, some of the Green Deals are too small with limited number of participants. Others are launched recently and there are no results yet. Thus, the decision of the most suitable Green Deal to be studied was left in the hands of an experienced Green Deal expert from the Dutch Government. As a result, the Circular Procurement Green Deal was suggested as the most suitable type of Green Deal to be studied. Not only it has won the Green Deal 'runner's up' awards but also this deal is more generic with more diverse participants than others Green Deals. The focus on the VEAs in the UK will be on the four agreements organized according to the framework introduced by WRAP.

The Finnish Ministry of Environment has helped me to establish connections with experts at WRAP, the Dutch Ministry of Infrastructure and the Environment and the Department for Environment, Food and Rural Affairs (Defra) in the UK. After establishing initial contact with the provided contacts, a *snowball sampling* was used to reach the experts possessing the most relevant information on the topic. Snowball sampling provides the researcher with the opportunity to effectively access hard-to-reach people possessing rare expertise in certain fields. Through snowball sampling experts suggest suitable interviewees for a certain research among their colleagues. (Patton, 2002)

The interviews were scheduled via email and held in March and April 2016. Initially, an email with background information of the study and its purpose was sent to the potential interviewees. After confirming their participation another email was sent asking interviewees' consent for recording the interview for research purposes. Some of the interviewees requested to see the questions beforehand. In total eight professionals representing three organizations and two governments were interviewed. Six out of seven interviews were individual and conducted via Skype. The seventh interview included two respondents and it was conducted via an audio conference platform. All of the interviews were recorded through a Skype recording program and transcribed thoroughly. Each interview lasted approximately 45-60 minutes and was conducted in English.

Government officials and experts at WRAP were interviewed for the WRAP agreements in the UK. The interviewees for the Circular Procurement Green Deal were selected from the deal's founding organizations. Four of the interviewees were selected to represent the Dutch Green Deals and another four shared their professional experience about WRAP's agreements. Respondents' names, job titles and organizations are presented in TABLE 6 below.

TABLE 6 Respondents' names, job titles and organizations

Respondent	Job title	Organization
Joan Prummel	Circular procurement advisor	Dutch Ministry of Infrastructure and the Environment (Green Deals)
Simon Johnson	Senior Policy Adviser, Resource Efficiency Team	Department for Environment, Food and Rural Affairs (WRAP agreements)
Lewis Baker	Head of Resource Effi- ciency Team	Department for Environment, Food and Rural Affairs (WRAP agreements)
Billy Harris	Research Analyst	Waste and Resources Action Programme (WRAP agreements)
David Rogers	Programme area manager	Waste and Resources Action Programme (WRAP agreements)
Esther Veenendaal	Advisor at the Nether- lands Enterprise Agency	RVO (Netherlands Enterprise Agency) (Green Deals)
Cas van Arendonk	Managing Partner Kirk- man Company	Kirkman Company (Green Deals)
Cuno van Geet	Senior advisor resource efficiency	Dutch Ministry of Infrastructure and the Environment (Green Deals)

The initial goal was to interview both the people directly involved in organizing the VEAs and the participating companies. The interviews with the experts were successful and in-depth information was gathered. However, getting in contact with the participating companies was challenging. Firstly, the nature of the VEAs guarantees privacy for companies' contacts and individual performance. Secondly, companies are rather sensitive in revealing any information related to the VEAs. Thirdly, none of the 30 companies that were approached through email expressed willingness to take part in the interviews. For these reasons, participating companies were not included in the interviews.

#### 3.1.2 Content of the theme interviews

The planning stage of the interviews took place in February 2016. The content of the interviews was developed after a discussion with two representatives from the Finnish Ministry of the Environment. During the discussion, the main questions and themes were identified which were later used for designing the interview questions. The interview questions draft was edited and approved by the same two representatives and the thesis supervisor. The questions were developed to answer directly the main research questions and the sub-research questions and shed light on various aspects of the agreements subject of the study. The theme interviews with the carefully selected experts were held in March and April 2016. The question template was following the major themes concerned in the study, such as the *initiation of the agreement, responsibilities, measuring results and experts' opinion and recommendations*. A test interview was conducted in order to evaluate the clarity of the questions. As a result, a new question about companies' motivation was added in the question template.

The interview template consisted of short, simple and direct questions. According to Eriksson & Kovalainen (2008), asking several simple questions instead of one complex, not only contributes significantly to the overall understanding but also enhances the chances of getting more accurate answers. In addition to the primary questions, secondary questions, such as "Can you tell me more about that" were used to continue the discussion and get deeper insights on the specific issue. Some of the interviewees replied shortly and there was a need of more additional questions. In contrast, other interviewees talked broadly on the topic and have provided extra information on issues beyond the question template. Thus, every interview was customized according to interviewees' responses and knowledge on a given issue. Eriksson and Kovalainen (2008) outline the importance of providing the interviewee with the opportunity to discuss other relevant issues which are not covered in the interview questions. Such clearing question was also asked in the end of the interviews.

Due to the lack of companies participating in the interviews an additional question related to companies' perspective and opinion was included for the interviewees representing the organizing institutions. As a result, different aspects of companies' participation including motivating factors and overall satisfaction were revealed.

## 3.2 Data analysis

Data analysis transforms the collected data into relevant and useful information. This process is often described as messy, time-consuming, creative and fascinating (Marshall and Rossman, 2006). During data analysis are discovered various patterns and relationships (Kohtari, 2004). One of the most challenging tasks for the researcher in qualitative data analysis is to reduce the data volume by selecting the most essential information. Then the selected data is reorganized, classified and categorized. Finally, the researcher interprets the interviewees' opinions and thoughts and draws findings and conclusions. (Flick, 2014)

There are different approaches for data analysis and in most of them codes and categories have a central role (Kuckarts, 2014). The data in the current study is analyzed through *thematic analysis*. Thematic analysis is a method for identifying different themes relevant to the research questions. (Flick, 2014). The themes are then grouped into categories. Categories can be either constructed through inductive reasoning by using the gathered qualitative data or through deductive reasoning by using an existing framework (Kuckartz, 2014). In this study the data is analyzed inductively. Data is interpreted in the final phase of thematic analysis. Not only the data interpretation brings meaning and attaches significance to the themes, patterns and categories but it also makes the reading enjoyable (Marshall and Rossman, 2006). The entire process of the thematic qualitative text analysis is presented in the figure below.

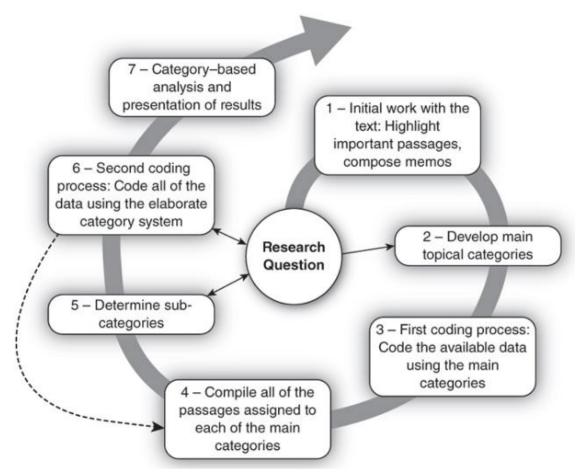


FIGURE 5 Process of thematic text analysis (Kuckarts, 2014)

The different nature of the agreements subject of the study requires that they are analysed separately. The transcribed data was divided into two groups: WRAP agreements (a third-party initiative) and Circular Procurement Green Deal (negotiated agreement). The three main categories, *development*, *implementation and performance and added value*, were identified according to the research questions. The relevant data was organized by using colour coding. The different themes for both types of agreements were highlighted in the same colours. This was useful for making a comparison between the Green Deals, in particular the Circular Procurement Green Deal and WRAP's agreements.

## 4 RESEARCH FINDINGS

This chapter presents the main research findings of the study. The two different voluntary approaches are examined separately. The findings are based on the interviews of four experts from the Netherlands and respectively from the UK. The findings are organized according to themes, categories and subcategories which are identical for both of the studied phenomena. The three main themes explored are *development*, *implementation and performance and added value*. The main themes, categories and subcategories are presented in FIGURE 6 below.

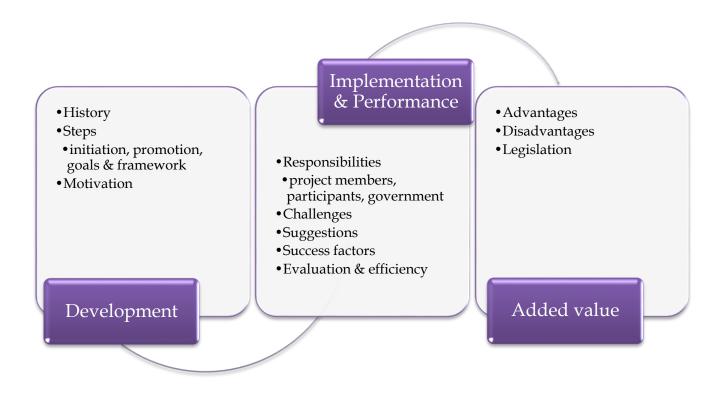


FIGURE 6 Main themes, categories and subcategories for Green Deals and WRAP agreements

## 4.1 Circular Procurement Green Deal (CPGD)

## 4.1.1 Development

## History

In terms of understanding better the way the CPGD works, this theme presents essential information about deal's history and the Green Deal initiative in general. According to the interviewees, the Green Deal initiative was started as a result of Dutch government's attempt in taking steps towards more sustainable economy. In 2011, the Ministry of Economic Affairs decided to implement a system in which proposals and innovative ideas related to sustainable development come from companies or civilians. The research findings revealed that the usual reason for companies to decide to have a Green Deal is a project that cannot be delivered due to legislation difficulties, lack of network or lack of funding.

"The reason why we invented Green Deals is that there are always problems or projects which can't be solved by itself and need some help from the national government." (Interview 1)

"The first Green Deal started because a company asked something from the government. Now we want to have more companies involved with governmental parties." (Interview 2)

Once a Green Deal is established, the government helps the participants in overcoming the barriers they have encountered. The interviewees emphasized that every Green Deal is an agreement of its own between the Dutch national government and companies, groups, local governments, regional authorities and NGOs. A necessary condition for creating a Green Deal is the presence of partners and participants who are willing to share experience and learn together. According to the interviewees some deals have two-three participants and do not require any other members. Others, such as the CPGD, are open for everyone.

The interviewees involved in the CPGD revealed that the idea of the deal emerged spontaneously as a result of a discussion between members of five organizations: Kirkman Company, MVO Nederland, Nevi, PIANOo and Circle Economy. After the discussion, a project team (steering group) was assigned. The CPGD was established in November 2013 by 16 partners. The idea of circular procurement was initially spread only through deal's founding members' networks. Since then the number of participants has increased to 41. The purpose of the CPGD is to encourage green growth through sustainable procurement.

"The concept of the Green Deal attracted participants who were willing to experiment in their own organizations and share everything they learn." (Interview 1)

## Steps of entering into an agreement

According to the respondents, the application for a Green Deal is a standard procedure and it is valid for all Green Deals. Parties that want to start or join a Green Deal need to write a proposal.

All of the interviewees involved in the Green Deals described the *initiation process* in three steps. Firstly, parties willing to join certain Green Deal write a proposal and send it to RVO (Netherlands Enterprise Agency). RVO is part of the Ministry of Economic Affairs and it promotes businesses in matters related to sustainability, innovation, and international business. Secondly, if the received proposal is suitable for a Green Deal and the main criteria are covered, it is sent to the ministry. In order to be approved by the ministry, the idea should not only be beneficial for the initiating parties but also for a wider audience. Other ministries are also asked for advice in relation to the topic of the proposal. Thirdly, if everyone agrees that the proposal is good, it is approved and formalized. Some of the respondents indicated that Green Deals are initiated formally from parties outside the national government. However, in practice the Green Deals are often initiated by a company or an NGO and someone from the government.

"We have events and people come and ask if they can join. It is also the other way around. If there is a company that has circular economy in its heart we ask them to join us." (Interview 3)

The next step of Green Deals' development process is *promotion*. According to the respondents only in the beginning when the Green Deal initiative was launched the government was promoting this approach through various means. For instance, different meetings were organized throughout the Netherlands aiming at familiarizing people with the opportunities the Green Deals can offer to different businesses. People or groups with interesting ideas for Green Deals were invited for further discussion. In addition, relevant information was also available in the Green Deal's website. Interviewees emphasized that the government no longer promotes the Green Deals. In fact, the communication and promotion is project team's responsibility.

"The government is not really taking actions to attract participants. You have to do it yourselves as a team" (Interview 3)

When the Circular Procurement Green Deal was launched in 2013, the founding organizations focused on promotion and communication of the deal. This quickly attracted new participants and from 16 the number grew to 41. According to the interviewees, nowadays the CPGD is well-known and there is no need of communication.

"Now we are not communicating too much because our success communicates enough and on the other hand we do not want to have another 100 members because it takes lots of organization. It is rather easy to organize, for example, a workshop day for 40 participants." (Interview 1)

The next phase of entering into an agreement is *negotiation of the goals*. The research findings revealed that there are general goals in different fields, such as circular economy, energy and resource efficiency and climate change. However, every Green Deal is negotiated separately and is an agreement of its own having

specific goals. For instance, according to the interviewees, the aim of the CPGD is for the participants to learn together by building-up a knowledge base. Thus, every activity in relation to circular procurement supports the general goal of the deal.

"What you commit to has to be clear but it can also be different for every Green Deal. There is no standard system." (Interview 4)

"The more specific you define your goals, the easiest is to measure if you are making progress and doing the right thing." (Interview 1)

The interviewees revealed that every Green Deal has a *legislative framework*. Each deal starts with a formal contract signed by all parties. In this contract are listed the goals, the so-called milestones to be achieved and the time frame. There is a system where they are adopted. According to the interviewees this documentation of the deal's specific details facilitates the monitoring and also plays an important role in the evaluation of deal's efficiency.

#### Motivation

According to the research findings, there are a wide range of motivation factors and drivers for participation. Firstly, it was highlighted that while some companies engage in Green Deals for idealistic reasons, others perceive the participation as beneficial for their business. Participation provides companies with free expertise, exposure and responsible image.

"It (participation) is economic driven. The participants gain competitive advantage" (Interview 3)

Secondly, the respondents indicated that the overall attitude of the companies towards the Green Deals is positive. The names of the participating companies in various Green Deals are publicly available and thus their participation can be utilized for marketing purposes. While some respondents indicated green marketing as a leading motivation factor, others pointed it out as a minor factor.

"Participation is good for companies' marketing. They (companies) are seen as green and sustainable". (Interview 4)

"In the NL people think that marketing is not really making the difference. It's about not telling but doing." (Interview 3)

According to the research findings, sometimes it is the board of the organizations who is initiating the participation. As main motivating factors the respondents indicated the idea of transforming the company into more sustainable and circular direction. In addition, self-motivated and driven individuals also play a central role in promoting and supporting companies' participation in Green Deals.

The respondents paid a special attention to the issue of privacy. Privacy of companies' data is leading motivation factor for participation. On the contrary, sharing companies' information on individual progress and results will lead to less inclination for joining Green Deals. Thus, only aggregated data on the overall progress is used in articles and publications.

According to the research findings, companies' motivation decreases due to skepticism about the outcomes of the Green Deals. This skepticism stems from

the fact that the processes and policy changes at company level is rather difficult, hence for some participants it is hard to get support for an active participation in a Green Deal. For instance, the outcomes of the CPGD are about knowledge sharing and not directly related to business. As a result, some companies are less motivated to invest time and resources for participation in Green Deals. The motivation factors for participating in Green Deals are summarized in FIGURE X below.



FIGURE 7 Motivation factors for participation in Green Deals

## 4.1.2 Implementation and performance

# Responsibilities

The main responsibilities discussed in this subcategory are the project members' responsibility, participants' responsibility, and responsibility of the government. Each Green Deal has own project team. The project members have shared responsibility. The project team of the CPGD consists of six people from six different organizations. The project members' responsibilities presented in FIGURE 8 below are not only valid for the CPGD but for others Green Deals as well.

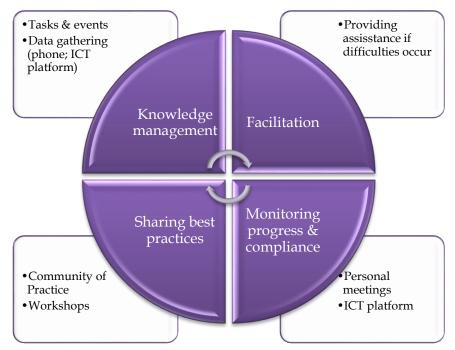


FIGURE 8 Responsibilities of the project members

Interviewees emphasized that structure is crucial for the implementation of the deal. *Knowledge gathering* and evaluating participants' experience is rather easy for a small group of participants and can be done by phone. In contrast, an ICT based platform for information sharing and virtual meetings is needed for larger number of participants. In addition, it was highlighted that project members and the project manager are usually having full-time jobs in addition to the tasks they perform in relation the Green Deal. For instance, the project members spend on average four to eight hours per month working on the CPGD. However, this is not an exact estimation as the hours spend on the deal may vary for different Green Deals. Thus, it was highlighted that the project members should secure enough time to spend working on the deal.

"There were weeks with 20 hours, but also months without any activity from our side." (Interview 1)

The respondents indicated that the project team is responsible for *facilitation* of the process. Often, if difficulties occur, the project members offer assistance or advice to the participants. In other cases, the participants are encouraged to contact other organizations which are dealing or have dealt with the same problem.

"We are just facilitating that everyone can learn in their own pace their own lessons and share them with the rest." (Interview 1)

*Progress and compliance* is monitored by the project team through personal meetings and the ICT platform. Once in eight weeks the project team meets to discuss participants' progress. In case some participants are not keeping the pace, the project team discusses different strategies to activate them. The interviewees pointed out that sometimes the participants encounter difficulties when reporting their progress due to complex questions. Besides these difficulties, they are very willing to report themselves their progress.

"...at the same time it is up to us as a project team to remind them." (Interview

The Ministry of Economic Affairs requires regular updates on the progress of the Green Deals. RVO (Netherlands Enterprise Agency) is also monitoring the progress annually. The interviewees pointed out that due to the voluntary nature of the Green Deals, there are no consequences in case of non-compliance. Every participant has the right to leave the Green Deal at any given point and this will be indicated on Green Deal's website. Thus, leaving the Green Deal might attract negative publicity and media attention. In fact, this has never happened so far for the CPGD as all of the participants are highly motivated.

1)

The project team is also responsible for *sharing best practices and innovations*. For the CPGD six sessions are organized annually. These sessions are called community of practice and their aim is to provide a platform for exchanging information and experience. According to the interviewees, participants in the CPGD receive a newsletter containing information about where and when the next community of practice should be organized. During the interviews, it was highlighted that community of practice is organized only for collaboration Green Deals with larger number of members. Not only the project team provides information on matters related to the Green Deal but also organizes few workshops on specific topics related to participants' experience, challenges and solutions. In the beginning of the CPGD, a training day was organized for all of the participants.

"The aim of the training was to provide everyone with the same knowledge on circularity and how to create a circular economy with circular procurement and what are the tools." (Interview 3)

MVO Netherlands (CSR Netherlands) has the responsibility of publishing the results and other relevant information about the CPGD on their website. For instance, the steps towards circular economy are available on their website. In addition, the interviewees indicated that in addition to the project team, RVO (Netherlands Enterprise Agency) is also responsible of sharing best practices.

According to the respondents, it is *participants' responsibility* to enter their progress in the ICT platform. Once a year the participants are requested to report their progress according to the initially agreed goals. This information is usually gathered through an excel sheet which the participants fill-in and send back to RVO (Netherlands Enterprise Agency). Participants have the freedom and flexibility to decide by what means to reach the goals of the Green Deal. In the Circular Procurement Green Deal, the only requirement for the participants is to start two circular procurement projects (pilots) and share their knowledge with each other.

According to the research findings, the government is only one of the participants in the Green Deals and has no specific responsibilities. It usually supports the Green Deal through assisting and adapting the legislation in case it poses a barrier for achieving sustainable development goals. For instance, in the CPGD two people from the project team are from the government. According to the interviewees in most cases the government does not provide financial aid to the participants.

## Challenges

This subcategory explores both the challenges the project team and participants are facing and the way challenges are handled in the Green Deals in general and the CPGD. The findings suggest that it depends whether participants receive assistance or not. According to the interviewees, in case of a problem the participants usually receive assistance from the project members or they are redirected to another participant that currently deals with the same issue. The respondents emphasized that the project members are not responsible for solving problems and deal with all of the problems encountered by the participants. Even though that there is no general support, in some cases NGOs with expertise might support the participants in case of a problem. In fact, the project members are aiming at connecting the participants with organizations providing expert support or organizing expert or master classes. Moreover, EU projects might provide financial support for some of the pilots.

The goal of the GD is more that we learn from each other's experience. (Interview 1)

Currently the project team of the CPGD is facing challenges in relation to acquiring data from the participants in regard to monitoring the impacts of the agreement.

"...companies are very reluctant to share such information." (Interview 4)

According to the research findings, a common problem for the CPGD is that some companies are moving forward while others are lagging behind. Often smaller or newly joined companies are slower in actions related to circular procurement. These differences cause an inconvenience for the facilitation process. As a result, the participants in the CPGD are divided into two streams. In fact, companies themselves can choose whether they wish to be placed in the advanced or the basic stream. Companies in the advanced stream not only listen during events, such as Community of Practice, but also they are expected to contribute for the learning process by sharing knowledge and experience. The respondents highlighted that they try to help the newly joined participants to gain knowledge and speed up their progress by getting help from the advanced participants. However, the interviewees noted that this is sometimes rather challenging. Hence, often the newly joined companies need to work by themselves to reach a certain level of circular procurement in a limited amount of time.

"The more advanced participants get a little bit too busy about helping others." (Interview 3)

## Suggestions

This subcategory discusses various suggestions for redesigning and improving the process of the Green Deals. The different ideas suggested by the respondents are summarized in TABLE 7 below.

TABLE 7 Suggestions for the improvement of Green Deals

## Suggestions for improvement

Include participants in the organization of events

Do not underestimate the need of knowledge management e.g. analysis, promotion, press-release, and publishing

Introduce a participation fee

Be prepared for larger number of participants than expected

Decide when to go to the next phase

Avoid overlapping goals

Look for possibilities for extending Green Deals to international companies

The interviewees highlighted the importance that all participants should be *responsible for organizing different events*, such as community of practice, seminars and trainings. Companies can contribute for the organization in various ways, such as providing conference rooms, foods and drinks. Another theme that arose during the interviews is that often activities such as data analysis, promotion, communication and publishing are underestimated. Thus, adequate resources for *knowledge management* should be secured as the Green Deal launches. Two of the interviewees also noted that charging the participants a small *fee* would significantly improve the process of the Green Deals. The fee could be used for organizing conferences, building an ICT platform, and research. Moreover, in case that the number of participants in a Green Deal increases significantly, it will cost more time and funding to facilitate the process. Thus, charging the participants a small fee on an annual basis will not only considerably improve the process but it will also increase their commitment.

"...it is pretty formal prove of compliance for the participants. Even a small fee is more binding than a signature on a paper." (Interview 1)

Another interesting suggestion about improving the process of the Green Deals is for the project team to decide when the Green Deal should *go to the next phase*. When all of the participants reach a certain level of circular procurement then more targets could be set and the deal can go in its next phase.

According to the research findings, it is important to avoid overlapping goals. During the interviews, it was highlighted that collaboration of participants from two or more Green Deal with similar goals is rather challenging. As a reason, it was pointed out that each group of participants has own ideas and it is not willing to change its own goals in order to collaborate more on other projects.

"It is not only a good thing to keep on expanding the collaboration. You also need to be simple in what action you take and move forward." (Interview 4)

"You need to reevaluate whether you can start collaborating on a new Green Deal together." (Interview 4)

Another suggestion for improving the process is to *look for possibilities for extending some Green Deals to international companies*. The respondents pointed out that the need for internationalization stems from the fact that some of the topics are rather difficult and certain issues needs to be addressed in more international settings.

"International Green Deals, for example within EU, will lead to more knowledge sharing between the countries." (Interview 4)

# Success factors

As stated by the interviewees, the most important success factor determining the outcome of the VEA is ambition.

"It always starts with ambition. The participants must have the same ambition and energy to explore and learn together. Having ambition and energy means that you must be willing to work hard for achieving the results and you must have time for that." (Interview 1)

According to the research findings, open communication and sharing best practices considerably enhances the chances for success. Being in contact allows the project members and the participants to exchange information on current issues. Another factor that promotes the progress of the participants is the establishment of working groups. The division of participants into advanced and basic streams promotes learning and speeds the progress of the newly joined members. All of the respondents agreed that Green Deals are not possible without mutual trust and respect. Firstly, the participants trust the project members with their private and often sensitive information. Secondly, the project members trust that the participants provide accurate data about their progress. Thirdly, it is vital that all participants respect the general rules and schedules for reporting progress.

Lastly, the respondents highlighted the importance of access to expertise and the cultural factors for the successful outcome of VEAs. Access to expertise helps the participants to overcome various problems and challenges and move forward with their procurement projects. The respondents also highlighted that the success of the Green Deal approach depends also on the cultural aspects.

"Cultural differences ask for a different approach, 'the Dutch way' doesn't fit automatically in other countries." (Interview 1)

The success factors for the Green Deals identified by the interviewees are presented in FIGURE 9 below.



FIGURE 9 Success factors for Green Deals

## Evaluation and efficiency

According to the research findings, each Green Deal has different evaluation system due to the different targets and requirements. The CPGD has a formal system for evaluation of the performance.

The progress reports are processed within the ministry on an annual basis. Progress is measured by comparing participants' intentions in relation to circular procurement with the achieved results. In fact, due to the long-term targets in the CPGD the evaluation is often based more on the process and the actions undertaken for achieving the results. For instance, starting the two pilots in relation to circular procurement and sharing everything they learn is an indicator that the participants are committed to the agreement and work towards achieving the targets. However, the interviewees highlighted that measuring the overall efficiency is difficult for various reasons. Firstly, it was stated that the CPGD has been growing over the last three years and the new organizations which join the agreement start from the beginning. Secondly, the participants implement the two pilots at their own pace. Thirdly, it is challenging to measure the efficiency of organizations from different industries.

The evaluation of the performance is based on the data extracted from the ICT system or the excel sheet where the participants fill-in their achievements. According to the research findings, participants are often invited to be speakers in various events, such as community of practice and share what they have learnt.

This helps the project team in comparing what the participants have reported and the actual results achieved.

"So what we can do is to measure if everyone is starting their pilots and sharing what they are learning and as long as we see that happening we are on the right track." (Interview 1)

The interviewees highlighted that there are statistics on the results for some of the Green Deals. However, for the CPGD statistics are available only for the number of participants and the titles of the circular procurement pilots started. According to the interviewees, currently efforts are directed at finding out in which step of the procurement process each circular procurement project is. However, certain challenges are met in regard of collecting the needed relevant information from the 41 participants. Another aspect discovered throughout the interviews is that some participants are overscoring on number of started procurement projects. For example, some participants have committed themselves not only to the two required projects, but in addition to that they have undertaken up to 13 other projects.

## 4.1.3 Added value

# Advantages

According to the research findings one of the biggest advantages of the Green Deal approach is raising awareness of circularity, active knowledge sharing and free access to expertise. The respondents highlighted that the Green Deals reach out to a larger group of companies and implement a lot faster than policy instruments. Moreover, Green Deals promote discussion between experts in emerging fields and progress through collaboration and innovation. This leads to deeper incorporation of green ideas within the organization and bottom-up creativity.

Not only the Green Deals enhance the commitment of the parties to environmental issues but they also change their way of thinking. For instance, the government has previously been seen as slow and bureaucratic but since the launch of the Green Deals it started to work together with the public and private sectors in a fairly open public area. Hence, the Green Deals improve the reputation and the trust in the national government.

"...nowadays they (NGOs) see that we want to achieve the same goals and that we are willing to work together." (Interview 2)

The change in thinking due to the Green Deal approach is also demonstrated by the CPGD. According to the respondents, the Circular Procurement Green Deal triggers social innovation and it is described as a "catalyst for other ideas". In addition, the respondents noted that Green Deals address issues on working level which helps in taking the most consistent actions in the implementation phase over long period. Thus, Green Deals bridge the gap between policy and implementation.

Lastly, transparency is essential for every Green Deal and it is also seen as a great advantage. The respondents highlighted that the government gains credibility by extensive and transparent communication about the process and results of the Green Deals. The participants in every Green Deal decide on how to communicate the process and the results. In addition, all the official information on each Green Deal is available online. Exception is made only for confidential technical and commercial information which is kept private.

"It is transparent because we are not leading the Green Deal and because we are an active partner. Our main rule is that everything developed with governmental money and time is a public property. So everything that comes from a Green Deal is public information and available for everybody." (Interview 1)

The advantages of the Green Deals are summarized in TABLE 8 below.

TABLE 8 Advantages of Green Deals

Advantages of Green Deals
Raising awareness of circularity and active knowledge sharing
Positive impact on businesses and the environment
Cheaper and faster than legislation
Deeper incorporation of green values within organizations
Sustainable progress through collaboration and innovation
Bottom-up creativity and access to expertise
Improve the reputation of the national government
Bridge the gap between policy and implementation
Transparency

# Disadvantages

Firstly, the Green Deals are not funded. The respondents highlighted that the lack of funding poses inconvenience for the facilitation process.

"If you have a Green Deal on collaboration the major barrier is that you need some funding to facilitate the process, for example, for organizing Community of Practice, booking a conference room, paying for the catering etc. In addition, funding is needed also for maintaining the website and providing basic assistance for some pilots." (Interview 4)

"We have to do everything in our spare time." (Interview 3)

Secondly, the interviewees noted that often in Green Deals there is a knowledge gap between the forerunners and the starters. In such cases the concept needs to be changed and the participants need to be divided into two groups. Thirdly, it is difficult to manage Green Deals with a large number of participants. For example, if a Green Deal is expected to have 15 participants but it grows to 60 participants, this will complicate the facilitating process. Data from 15 participants can be gathered by a simple excel sheet or by phone. On the other hand, for managing the data of 60 participants there is a strong need of an ICT system.

"Having 60 participants means bigger location; people step out or get bored. When it (the Green Deal) is getting mature you need to reevaluate your system". (Interview 4)

Lastly, the respondents noted the disadvantages caused by overlapping goals. For instance, often different Green Deals related to climate, resources and

bio-economy have similar goals and instruments, such as eco-design, procurement and innovation. As stated by the respondents, overlapping goals often encourage participants from different Green Deals to co-operate on certain projects. However, the different views and goals of each group can pose challenges for the facilitation process.

"The more partners you have the more difficult it is to reach a compromise." (Interview 4)

# Legislative implications

This subcategory discusses the impact of Green Deals on legislation. All of the interviewees agreed that Green Deals cannot replace legislation or other norms set by the government. Instead, they were described as an addition to the legislation.

"The Green Deals are merely a replacement for implementation programs by the government, subsidies and other instruments to stimulate markets. Sometimes it is not the subsidy that helps but the expertise." (Interview 4)

It was also highlighted that if a sustainable development project cannot be fulfilled due to barriers posed by the current legislation, the barriers can be addressed through a Green Deal and the legislation can be adapted accordingly. The interviewees also noted that due to the long process of changing legislation, it is not uncommon that participants ask the government for a special permission to pretend that for a specific project the legislation is different.

According to the research findings, the Green Deals in general and the CPGD have a low impact on environmental legislation. The respondents described the cases in which legislation is influenced by a Green Deal as coincidental. There have been signals from several Green Deals that the legislation has posed barriers for further development and thus it has been adapted. For example, as a result of the Green Deal called Take Back Chemicals, in which the producers of the chemicals are the owners, legislation was adapted in order to serve the purpose of the Green Deal.

"There are some impacts on legislation but these are just a few. Most of the problems we find are not in the legislation but merely in getting the right information and how to implement it." (Interview 4)

# 4.2 WRAP agreements

## 4.2.1 Development

# History

According to the research findings, the four agreements organized by WRAP share the same concept which is implemented in different areas. The best known of WRAP's agreements is the Courtauld Commitment (CC) on food waste. The CC was launched in 2005 and it aimed at bringing together stakeholders from the supply chain and taking actions on food waste reduction. According to the respondents, the commitments on CC has produced considerable benefits in terms of reducing food waste. Initially, the concept was developed in The Halving Waste to Landfill agreement which ended in 2012 and the first phase of the CC proved this concept. This success convinced those involved of the benefits of this approach, thus WRAP expanded this approach to other areas.

"So, we looked up other areas that we can make things work, and the textile and clothing seemed as a one way you can potentially produce beneficial impact across the supply chain, so the Sustainable Clothing Action Plan (SCAP) was established in 2010." (Interview 7)

Currently, the CC is in its fourth phase. The new agreement is called Courtauld 2025 (C2025) and was launched in March 2016. The respondents highlighted that C2025 is primarily focused on food waste, food redistribution, edible feed byproducts and water use within the food industry.

# Steps of entering into an agreement

The process of entering into an agreement involves the following phases: *initiation, promotion, negotiation of the goals and legislative framework*. According to the research findings, the process of the agreement is initiated and administered by WRAP. Thus, WRAP decides which other organizations to be involved. For each agreement, the signatories must be in a relevant industry sector. For instance, for the CC it was necessary to involve parties, such as retailers, big manufacturers, representatives from the packaging industry and the government. After identifying the types of organizations that needs to be involved, the next step is to select the leading organizations with the biggest potential impact in that area. Thus, WRAP's account managers *promote* the agreements, attract participants and maintain the relationship with the organizations they are already working with.

"We (at WRAP) identify who we want to work with and send the team to attract them." (Interview 6)

"We also are attracting companies for the CC by promoting that food waste is among other things waste of money." (Interview 5)

Negotiations with the selected organizations lead to an agreement. The interviewees highlighted that there are no specific entry requirements and the

criteria vary depending on the agreement. According to the respondents, usually all organizations applying for participation are approved.

"Historically, we are very inclusive. But as we progress we are probably becoming slightly stricter on who we allow in." (Interview 5)

According to the research findings the government promotes CC as a policy instrument but do not take any specific actions to attract participants for the agreements. During the interviews, it was also pointed out that neither WRAP nor the government provide any direct financial incentives.

The goals for the agreements are set by the signatories who try to reach a consensus on the actions and the objectives. WRAP is trying to facilitate the negotiation process. The interviewees pointed out that companies need to achieve the goals as a group not individually. For instance, for the CC there is a target of 20% food waste reduction as a group. Thus, WRAP supports the signatories to work towards the achievement of the goal.

"If the UK has 50% target in CO2 we calculate how much of it is produced of food waste, how much food is being wasted and how much is potentially avoidable then we have a time frame to achieve the targets." (Interview 6)

"Companies do not have targets that they themselves need to meet but we do work with these companies on individual basis to identify potential areas of improvement." (Interview 5)

WRAP agreements do not have a legislative framework as they are completely voluntary. In order to participate, the signatories sign an agreement and agree to comply with certain targets. For the new agreement C2025 some of the big retailers are charged a participation fee. The interviewees pointed out, that WRAP agreements are not legally binding and there are no legal consequences in case of non-compliance. If a signatory stops contributing by any means to the agreement it can be excluded. The interviewees emphasized that this has not happened so far.

"If a company completely ceases to engage with the agreement, deliberately ignoring it and just using it for publicity or systematically fail to submit data or share information with us it could potentially be removed from the agreement." (Interview 5)

## Motivation

According to the interviewees, the leading motivating factor for companies to engage in WRAP agreements is the advantages of producing less waste and operating more efficiently. Even though there is no direct financial gain, companies gain numerous benefits by participating in the agreements. For instance, WRAP provides expertise to the signatories and helps them with the reporting and analysis of food waste. Each participant is assigned account managers who have access to sector specialists within WRAP. Thus, experts help the companies to strategically develop approach to waste prevention. As a result, companies discover opportunities for cost savings without paying for consulting companies or external specialists.

"They do save money. We found projects with some of the signatories to look up particular supply chains, such as meat, dairy or fruit products." (Interview 6)

WRAP mentions all of the signatories in its Annual Report which offers the participants the opportunity to gain positive publicity and use this information in their CSR reports. Another motivating factor for participation is having an informal and open dialogue with the government. Moreover, the respondents stated that companies prefer to participate in voluntary agreements than comply with stricter laws and regulations.

"The businesses like to work in a way that doesn't involve new laws that are costly and includes fines." (Interview 6)

The respondents emphasized that signatories' data in regard to the agreements are kept private. The data used in the published reports is aggregated and represents the overall progress of all participants. Lastly, according to the research findings, feedback is described as a driving motivating factor for participants to perform better. The more engaged companies are the more interested they are on how they are performing against the other companies in the agreement.

"We share with retailers how other retailers are doing on average. They are very interested to know how well they perform in relation to the others. There is a competitive element." (Interview 5)

The motivation factors for participating in WRAP agreements are summarized in FIGURE 10 below.



FIGURE 10 Motivation factors for participation in WRAP agreements

## 4.2.2 Implementation and performance

# Responsibilities

According to the research findings, *WRAP* is funded by the government to manage and support the agreement. Firstly, WRAP supports projects by testing, analyzing the results and sharing them with the wider audience. The experts at WRAP usually publish the main figures of certain projects, such as the amounts of waste reduced, the savings in monetary terms and the avoided carbon emissions. WRAP is also responsible for providing the signatories with access to expertise. The respondents revealed that companies get access to expertise as a result of the governmental funding for the agreement.

"WRAP supports the agreement. We have technical specialists, project managers, account managers, economists and scientists that provide help to the organizations." (Interview 6)

Secondly, WRAP is responsible for gathering and processing data. WRAP encourages the participants to report their data on food waste. The respondents revealed that the initially used spreadsheets for data gathering were later replaced by an internet based portal with secure ID. This change improved the monitoring and also allowed both participants and the experts at WRAP to ask questions online. In addition to data gathering, WRAP is processing the data by aggregating, summarizing and presenting it visually. The respondents emphasized that data is anonymous and companies' information is never shared publicly.

Thirdly, WRAP monitors the overall progress and compliance by developing a tool and a matrix to measure progress towards the objectives. In case of data inconsistencies, WRAP contacts the companies for clarification.

"We (WRAP) find that the companies do generally engage in good faith, however we cannot require them to prove how much waste is sent to landfill." (Interview 5)

Best practices and innovations are shared by WRAP in reports or case studies, as a feedback to the companies or at organized events. According to the experts at WRAP, the central team reviews the findings and look for patterns annually. For instance, redistribution of food for human consumption is a recent trend, thus companies are encouraged to find ways how that can be done more efficiently. Best practices and innovations are communicated to the companies through the key account managers. Moreover, WRAP organizes steering group meetings, where different signatories' environmental managers can exchange ideas and experience. However, the respondents noted that because of issues of commercial confidentiality, the participants do not necessarily share their experience at such meetings. The respondents stated that it is WRAP's responsibility to promote the information exchange aiming at enhancing companies' learning as much as possible.

"We (WRAP) tend to write reports or case studies for projects which have been successful. We share them with the members through email, websites, and meetings." (Interview 6)

"The people in the room are there to share information but they are also competing with one another and don't want to share everything completely openly." (Interview 5)

The responsibilities of WRAP are summarized in FIGURE 11 below.

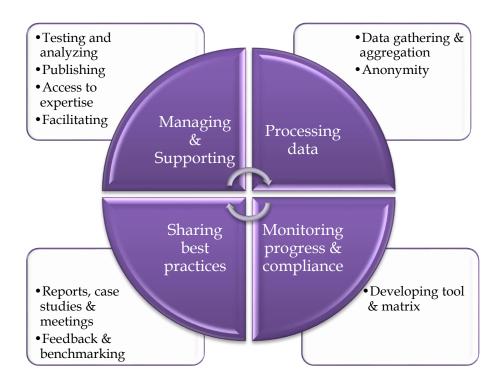


FIGURE 11 Responsibilities of WRAP

Participants are responsible for reporting the food waste to WRAP. According to the respondents, the participant fill-in a simple form, in which they state their annual food waste and whether it is increasing or decreasing. The companies participating in certain projects also measure and report themselves the results in regard to food waste and the exact actions that lead to these changes. The respondents highlighted that participants are also committed to implementing best practices into their businesses and participating in different projects. Participants are free to choose what actions to take in order to achieve the set group target for the agreement.

According to the research findings, the *government* is responsible for funding WRAP to organize the voluntary agreements.

"Funding is part of our (government's) contribution for resource efficiency. We are prioritizing continuing to fund WRAP and supervise their activity and have regular discussions. They are experts in this fields." (Interview 7)

## Challenges

This subcategory explores the challenges encountered in WRAP agreements and the way they are handled. The respondents noted that if challenges arise the company is expected to address and solve these problems on its own. WRAP is usually providing the participants with information which helps them to solve their problems.

"They want to know what is the best environmental option, with whom they can get in touch, who is able to help them to reduce the way of packaging. In those areas we have sector experts to whom WRAP account managers can speak to. So, there is support, but it is mostly access to advice." (Interview 5)

Another challenge according to the respondents is related to data gathering. Often CC companies do not have the food waste information requested by WRAP. Hence, WRAP needs to work closely with the company and build up the information together.

The respondents noted that the new agreement on electronics (ESAP) poses certain challenges as it is a new area both for the government and for WRAP. The agreement joins together all stakeholders across the supply chain, including designers, manufacturers and retailers, aiming at finding ways to create cost savings and to improve resource efficiency. Thus, clear targets are essential for the success of the agreement.

"We still have a lot of work to do on this (ESAP), it is very new area for us." (Interview 7)

Another challenge associated with WRAP agreements is the free rider problem. The research findings indicate that, promoting the benefits stemming from participation in WRAP agreements is a common way to overcome this challenge.

"Preventing that happening is a very much a matter of discretion and who we admit to the agreement. If someone isn't really participating freely we tend to concentrate on selling the benefits to them and get them onboard." (Interview 5)

Even though the benefits and success of CC lead to the expansion of this voluntary approach to other areas, the experts at WRAP noted that it is not going to work in every area.

"Some agreements are going be more effective than others. We are still testing it." (Interview 5)

## Suggestions

This subcategory reveals the opinion of the interviewed experts for redesigning and improving the process of the WRAP agreements. The interviewees highlighted that there has been a lot of improvements and redesigning from the first Courtauld Commitment to the new agreement C2025. For instance, the supply chain has been made to come under one agreement. Another change that has been implemented is simplifying the measurements and the data gathering systems. After experiencing some difficulties with the complicated online portal, a new simpler data gathering system has been introduced. Thus, the signatories

are able to enter their data more easily. The interviewees also stated that adding a fee to the new agreement C2025 was necessary.

"The simpler the information the more accurate." (Interview 6)

"If you make it (data gathering system) too difficult, people don't bother. If they try and put wrong information is no good to anyone." (Interview 6)

An interesting improvement made to the C2025 is the incorporation of a business management tool for managing participants' food waste. The respondents revealed that the idea is to have an online portal with simple core questions that everyone needs to answer. In addition to these simple questions, companies can answer more specific questions related to their own business. For instance, companies in the milk industry can choose to answer questions related to waste from that sector.

"We aim to tailor what the agreement does with the needs of the individual companies. This is expected to increase companies' satisfaction with the C2025." (Interview 5)

"When considering if VEA would be a sensible approach you need to look what's in it for the participants." (7)

The different ideas are summarized in TABLE X below.

TABLE 9 Suggestions for improvement of WRAP agreements

# Suggestions for improvement Consider in advance what the agreement is and what it achieves Simple solutions for measurements and data gathering Participation fee Incorporation of a business management tool

## Success factors

The research findings suggest that satisfaction is a critical factor for the success of the agreements. Even though most of the companies are slightly frustrated by the need to submit their data annually, they definitely see the value in the agreement. Generally, the participants are satisfied with WRAP agreements. However, some participants would want to have slightly different agreement corresponding to their personal needs, such as more technical support, stricter compliance requirements and a guarantee for data trustworthiness.

"Some might like more technical support, others would like the agreement to be more aggressively placed, so the noncomplying companies are removed and that the data is being audited. We don't have the resources to audit most of the companies. You can never completely please everyone but we do what we can." (Interview 5)

Another key success factor is a strong commitment to confidentiality and trust. The information, that companies submit to WRAP is often sensitive, thus WRAP ensures that companies' data is kept private and anonymous. Active engagement and competition are crucial for the success of the agreements. The re-

spondents pointed out that the key account managers have a central role for engaging the participants. For instance, feedback on the average performance of other participants in the same industry sets benchmark and thus improves engagement through creating a competitive atmosphere. Other important success factors identified by the respondents are communication and sharing. According to the research findings, effective communication encourages participants to be open and share their experience with the rest. Lastly, the interviewees pointed out that a potential legislative threat could be also used as a driver for success.

"Engagement is absolutely critical." (Interview 5)

"Potential (legislative) threat is not something that you actually have to use, but there has to be the possibility if they don't contribute at all to the goal." (Interview 5)

The success factors identified throughout the interviews are summarized in FIGURE 12 below.



FIGURE 12 Success factors for WRAP agreements

## Evaluation and efficiency

The evaluation and efficiency are measured by WRAP's evaluation team on a constant basis. Firstly, the data submitted by the company is briefly audited by the key account managers for that company. Secondly, the data is checked by an expert at WRAP and the head of the supply chain program. Thirdly, if the data is consistent it is approved and sent for evaluation. In case of data inconsistencies or questions, the signatories are contacted for further information.

The experts at WRAP revealed that they have two separate models. The first one, monitoring of the performance, is measuring and aggregating the data.

Usually this data is later used for reporting against the performance indicators. The second one is the evaluation, which is measuring how much of the change is due to the commitment and how much is due to external factors. The respondents pointed out that the annual targets for the CC are expressed in terms of reducing the amounts of waste produced by the signatories. Once a year the companies report the amount of waste produced, packaging placed on the market, the total turnover. Thus, the experts at WRAP calculate the performance against the size of the company and how much food waste is redistributed for human consumption or for animal feed.

"We (WRAP) aggregate that data to measure success against the target as a whole." (Interview 5)

"In terms of evaluating the impacts of the agreement we also have an external auditor who does an impact evaluation trying to look how much of the changes in the market is due to the CC." (Interview 5)

According to the research findings, the total CO2 value equivalent of all the packaging placed on the market by the signatories and the amount of waste produced are used as performance indicators. The information submitted by the signatories about the amount and type of packaging is then analyzed through Lifecycle Assessment (LCA). The interviewees pointed out that the target of waste reduction includes the packaging waste. In addition, WRAP monitors the amount of waste directed for animal feed and the amount of material that is redistributed for human consumption through charities.

After the evaluation process, the performance of the agreement against the targets is published in WRAP's Annual Report. The experts at WRAP highlighted that this report is also reviewed by an external auditor. Then, a separate level of evaluation is initiated. The same data is evaluated by an independent external contractor. Moreover, some of the signatories and other stakeholders are interviewed. As a result, the independent external contractor estimates how much of the waste reduction is due to the agreement or other factors.

For the CC, WRAP processes the data and produces figures on food waste of the retailers, manufacturers, and households. The average performance of the project is reported to the government. In the report, the signatories' performance is presented separately for retailers and manufacturers. The aggregated results are published once a year.

"We report the average performance. Part of the agreement is that we never release any data on individual signatories so we can only aggregate information." (Interview 5)

"...and in the technical report which goes to the government we have a more detailed breakdown showing the manufacturers and retailers performance relative to one another." (Interview 5)

## 4.2.3 Added value

# Advantages

Firstly, the research findings suggest that WRAP agreements *encourage progress* through collaboration and innovation. The agreements attract businesses with common interests who are willing to share information and ideas on innovative ways of addressing certain problems. Moreover, working in a collaborative team for solving a particular problem increases the efficiency and learning as participants are sharing their experience and best practices. Thus, enabling such voluntary approach and testing its potential has led to progress in the area of waste reduction. For instance, the food waste reduction in the UK has been one of the most effective in Europe.

"It (the agreement) is a good way to combine lots of organizations to have the maximum impact. You make one small change and you replicate it throughout lots of organizations." (Interview 6)

"The success of CC has convinced people that there is real potential and value in bringing together stakeholders from the whole life-cycle of certain product or material into a formal voluntary agreement across the supply chain. By working together, we have actually delivered significant results in resource efficiency with that approach." (Interview 7)

Secondly, the participants in WRAP agreements gain *reputational and savings benefits*. The interviewees highlighted that businesses engaged in WRAP agreements are perceived as being good for society and the environment. Furthermore, utilizing resource efficiency savings is good for the environment and for the business. For example, by being more resource efficient, signatories in ESAP reduce product returns and increase customer satisfaction.

Thirdly, WRAP agreements have a tremendous *positive impact on consumer behavior* by promoting resource efficiency through various campaigns. For instance, the Love Food Hate Waste campaign is linked to the CC, and the Love Your Clothes campaign to the SCAP. The latter encourages consumers to reuse their clothes, to buy clothes from second hand stores, and to take care of their clothes in order to enhance their lifespan. The respondents emphasized that consumers have a central role for determining the behavior of the companies. If consumers make more informed, environmental and sustainable choices, the business will develop their products to appeal to the consumers. Hence, WRAP agreements have a positive impact on businesses and the environment. For instance, the CC has led to a significant reduction in CO2, dependencies on water, oil, and plastic.

"The agreements include consumers as well. By influencing consumer behavior, we aim to encourage resource efficiency." (Interview 7)

Another advantage gained through participation in WRAP agreements is the *access to expertise*. The respondents pointed out that numerous experts from the companies participating in the agreement, from WRAP and from other external organizations join forces together to solve a certain problem.

"It (the agreement) is like a continuous process of ongoing consultation. It makes companies to join the VEA and adopt new ideas." (Interview 5)

According to the interviewees, WRAP agreements *reduce the cost of regulation*. For example, the costs of complying with regulations are much higher than the costs of complying to voluntary agreements. In fact, voluntary agreements allow certain flexibility for the business as their actions for achieving the group targets are adjusted to the individual businesses' circumstances. The respondents pointed out that the CC agreement achieves reduction in food waste and CO2 emissions, thus there is no need of new laws as these results are similar to what might be achieved under potential legislative instruments.

Lastly, the results of the agreements are reported *transparently*. Representatives at WRAP process the data and report the results of the agreement together with the matrix that underlies the approach it has used. In the report, WRAP summarizes the aggregated data in one figure.

"Transparency is really important because people don't necessarily trust the government but they don't necessarily trust businesses either." (Interview 7)

The advantages of WRAP agreements are summarized in TABLE 10 below.

TABLE 10 Advantages of WRAP agreements

Advantages of WRAP agreements
Encourage progress through collaboration, innovation and setting benchmark
Reputation and savings benefits
Positive impact on businesses and the environment
Businesses gain access to expertise
WRAP agreements reduce the cost of regulations
Results are reported transparently

## Disadvantages

The research findings suggest that besides the numerous advantages of the WRAP agreements there are few disadvantages as well. Firstly, the respondents noted that there is a risk of free riding. In certain cases, the signatories use the agreements only as means of avoiding regulations without an intention of working for achieving the targets.

"You should make sure that these agreements are not taken advantage of and that they actually produce change. If you do that they are potentially very powerful and very flexible." (Interview 5)

Secondly, the experts at WRAP emphasized that while assisting the signatories through collaborative working benefits tremendously the participants, it is very time-consuming. Another disadvantage is the lack of transparency. The respondents noted that even though the results of the agreements are reported transparently by WRAP, the individual companies' data is not transparent due to confidentiality reasons. Moreover, the data companies report to WRAP is lacking transparency as well.

"If a company decides to lie, we cannot detect it or do anything about it." (Interview 5)

Lastly, the interviewees emphasized that breaching the competition law has been used as an excuse in the past by businesses who do not want to participate in WRAP agreements. Thus, it is WRAP's responsibility to facilitate the agreements by bringing businesses together and encourage them to share information without feeling that they break any existing domestic or EU competition laws.

"It is a convenient excuse rather than a real legal barrier of entering into a VEA." (Interview 7)

# Legislative implications

This subcategory discusses the impact of WRAP agreements on legislation. According to the respondents, the voluntary agreements do not replace legislation. The interviewees noted that the other way to achieve the significant waste reduction would be by setting a law with legally binding targets and fines. In fact, the UK government is aiming at minimizing regulations. The respondents emphasized that participating in VEAs is less costly and substitutes certain laws. Furthermore, due to the absence of fines and the need of enforcement voluntary agreements reduce burdens on government and business. In addition, the respondents stated that companies' waste reduction efforts go beyond current legislation.

"The government doesn't really want to fine retailers and make them less competitive." (Interview 6)

"We (the UK government) have seen a major reduction in food waste that we have achieved through voluntary means. A successful voluntary approach may reduce the need for legislation which otherwise would have arisen." (Interview 7)

Much of the environmental legislation in the UK comes from EU directives, hence WRAP agreements do not have in general a huge impact on legislation. Nevertheless, the respondents highlighted that VEAs can reduce the public pressure for legislation. In addition, if VEAs perform well and achieve the set targets, this reduces the need for environmental legislation to achieve the same objectives.

"It's been a conscious policy decision on the part of various administrations that the VEA approach should be tried first but always with the possibility if that does not work legislation would be needed." (Interview 7)

# 5 CONCLUSIONS

This chapter summarizes the main research findings of the study and their relevance to former literature. The discussion section is followed by implications and evaluation of the reliability and validity of the study. Finally, limitations and suggestions for future research are discussed.

# 5.1 Summary of the study

The aim of the study was to explore the way the Dutch Green Deals and WRAP agreements, in particular the CPGD and the CC function. The data was collected through theme interviews with eight experts working in Dutch and UK governments, WRAP and the founding organizations of the CPGD. The research findings revealed how these VEAs function and how their efficiency is measured. This was achieved through in-depth exploration of the three main categories: *development*, *implementation and performance* and *added value*. The aim of this section is to highlight the key research findings in relation to the main research questions of the study.

According to the research findings the Green Deals and WRAP agreements were initiated to tackle environmental issues through public-private cooperation. The Dutch Green Deals are voluntary agreements between the Dutch national government and various stakeholders. In fact, the government is one of the participants in the Green Deals. On the contrary, WRAP agreements are funded by the UK government and organized by WRAP. Thus, the government does not participate directly in the agreements.

Initiation, promotion, setting goals and legislative framework were identified as the general steps of entering into an agreement for both of the studied phenomena. A major difference in the initiation process of the two voluntary approaches was discovered. While the experts at WRAP are responsible for the initiation process of the agreements, the parties interested in joining a Green Deal are expected to apply for participation individually. Moreover, participation requirements are not clearly stated for the WRAP agreements and selection is done on a case-by-case basis, whereas the Green Deals have general criteria for participation and include specific requirements which must be met by the applicants. The organizing parties of both types of voluntary agreements are responsible for the promotion. For instance, the project team of each Green Deal is responsible of the promotion of the deal, while the account managers at WRAP are responsible for promotion of the agreement and the engagement of suitable participants. The research findings also indicated differences in the process of setting goals for the Dutch Green Deals and WRAP agreements. Firstly, the participants in the Dutch Green Deals choose a general goal, such as energy and resource efficiency or climate change. Secondly, each Green Deal has specific goals and targets, which are agreed according to participants' individual needs and interests. On the other hand, instead of individual targets, WRAP agreements have a collective target which is to be achieved by all participants. Lastly, the research findings revealed that both types of the agreements are completely voluntary and there are no sanctions or penalties in case of non-compliance.

The research findings in relation to the *implementation* and performance phase of the agreements, revealed the main responsibilities of the parties, challenges, suggestions for improvement, success factors and how efficiency is measured. Green Deals' project teams and the account managers assigned to different participants in the WRAP agreements are responsible for facilitation of the agreements. Among their responsibilities are knowledge managements, providing access to expertise, sharing best practices and monitoring and evaluation. Furthermore, the project team (Green Deals) and account managers (WRAP) are usually assisting the participants in case of problems with the implementation of the agreement and its targets. On the other hand, the participants are responsible for reporting their progress. The differences between newly joined and advanced participants were identified as the main challenge for the facilitation process in the Green Deals, whereas the risk of free-riding and difficulties in gathering data were highlighted by experts at WRAP. The respondents provided rather different suggestions for improving the process of the Green Deals and WRAP agreements. While, the Green Deal experts focused on the importance of securing sufficient resources, WRAP's representatives suggested simple solutions for overcoming the challenge with data gathering. TABLE 11 summarizes the suggestions provided for both type of voluntary agreements.

TABLE 11 Suggestions for improvement (Green Deals & WRAP agreements)

Suggestions for improvement		
Green Deals	WRAP agreements	
Engage participants in the organiza-	Consider in advance agreement's pur-	
tion of events	pose and targets	
Ensure sufficient resources for anal-	Choose simple solutions for data gath-	
ysis, promotion, press-releases and	ering and measuring efficiency	
publishing		
Introduce a participation fee	Introduce a participation fee	
Be prepared for larger number of	Create value for the participants, e.g. a	
participants and deal's next phase	business management tool	
Avoid overlapping goals		
Possibilities for extending Green		
Deals internationally		

The research findings revealed that among the critical success factors for both of the studied phenomena are sharing best practices, trust, and communication. The key success factors are presented in TABLE 12 below.

TABLE 12 Success factors (Green Deals & WRAP agreements)

Success factors		
Green Deals	WRAP agreements	
Ambition	Satisfaction	
Sharing and communication	Sharing and communication	
Establishing working groups	Engagement and competition (benchmark)	
Trust and respect	Confidentiality and trust	
Access to expertise	Legislative threats	
Culture		

Lastly, the *implementation and performance phase* of the agreements ends with an evaluation of their effectiveness. Each Green Deal has different methods for evaluating the efficiency. For instance, due to the long-term targets in the CPGD, evaluation is focused on assessing the relevance of the undertaken actions for achieving the goal. On the other hand, experts at WRAP use the processed data for reporting against the performance indicators. Not only do they measure the performance, in terms of reduced waste against the size of the company, but also, they consider how much of the reduction is due to external factors.

The third main category identified in this study is *added value*. The research findings revealed the main *advantages*, *disadvantages* and *legislative implications* of the Green Deals and WRAP agreements. Both of the research phenomena are associated with number of *advantages*, such as knowledge sharing, significant positive impact, and bridging the gap between policy and implementation. The key advantages according to the research findings are summarized in TABLE 13 below.

TABLE 13 Key advantages of Green Deals & WRAP agreements

Advantages of Green Deals and WRAP agreements
Active knowledge sharing and learning
Deeper incorporation of green values
Positive impact on business and the environment
Progress through collaboration and innovation
Benefits in relation to savings and expertise
Transparency

The research findings indicated rather different disadvantages of the studied phenomena. The Green Deals expert indicated lack of funding, gap between the forerunners and the starters, difficulties associated with facilitation of large number of participants and overlapping goals as the main disadvantages. On the other hand, the major drawbacks of WRAP agreements are free riding, the intensive time consumption, the weakness of the agreements to tackle urgent problems and the barrier that competition law poses on sharing practices.

Lastly, the research findings indicated that both the Green Deals and WRAP agreements do not have any significant implication on environmental legislation. The Green Deals were described as an addition to the legislation, whereas as long as WRAP agreements achieve the waste reduction targets policy makers would view them as a viable alternative to new environmental regulations.

## 5.2 Discussion

The findings of the current study revealed that among some of the most critical success factors for VEAs are culture, ambition, trust and respect, benefits, access to expertise or consulting, best practice sharing, engagement and communication. These findings are supported also by former studies on the topic. Firstly, previous studies point out culture, sanctions and incentives, best practice sharing, establishing working groups, and consulting services as key success factors (Brink 2002; Croci 2003; Dalkmann et al. 2005; Bresser et al. 2009). Secondly, Immerzeel-Brand (2002) emphasizes the importance of trust and respect, problemsolving orientation of the participants, existing alternative legislative instrument and a homogenous industry sector. Thirdly, Bresser (2009), and Bresser and Bruijn (2005) add to the list of critical success factors ambition, compliance, goal attainment, clear understanding of the environmental problem, solving conflicts, communication and environmental behavioral change. Thus, the research findings support strongly some of the former literature but also contradict some of the previous findings on the issue. While the findings suggest that legislative threat is rather rarely used for motivating the participants, credible regulatory threats (Segerson and Miceli 1998; Segersson and Alberini 2002) are referred in former literature as an important success factors. Furthermore, the homogeneity of the industry sectors is not critical for the success of the Green Deals. In fact, in many successful Green Deals, such as the CPGD, the participants are from various industry sectors.

The respondents identified most of the success factors as advantages that bring value to the agreement. Previous studies also establish a strong connection between the success factors of the VEAs and their added value. For instance, Brink (2002), Dalkmann et al. (2005) and Bresser et al. (2009) emphasize that sharing best practices, establishing working groups and access to expertise not only enhances the chances of successful VEA but also adds value to the process. As a result, participants widen their horizons and adopt new technologies and approaches. Thus, the findings of the study support former literature on that matter.

In relation to evaluating the efficiency of the agreements, the research findings reveal that in the Green Deals, participants' initial commitment to circular procurement is compared with the achieved results or the undertaken actions for reaching the targets. On the other hand, experts at WRAP evaluate the performance and efficiency in two steps. Firstly, the overall performance is monitored by measuring and aggregating the data and using this data for reporting against the performance indicators. Secondly, the experts measure how much of the change is due to the commitment and how much is due to external factors. According to EEA (1997), the effectiveness of VEAs can be measured against alternative policy instruments scenario, business as usual and the reference situation. In addition, Prakash and Potoski (2011) suggest measuring the effectiveness of VEAs by acknowledging the positive environmental impacts beyond what

would have happened without the VEA in place. Hence, it could be concluded that the Green Deals and WRAP agreements employ some of the methods for efficiency evaluation suggested by former literature.

The findings of the study reveal that VEAs may be more cost-efficient and flexible than regulation but also that non-enforceable VEAs might be preferable to governments. In fact, non-enforceable VEAs can be more flexible, less costly and less risky for the government and the participants. For instance, companies' waste reduction under the CC agreement exceeds the legislative targets. Former literature supports the findings of the study to some extent. Dalkmann (2005) and Bresser and Bruijn (2005) agree that VEAs are more cost-efficient and flexible than legislative instruments. However, Strandlund (2010) establishes a connection between the enforceability of VEAs and their efficiency. Hence, the research findings contradict previous literature by revealing that non-enforceable VEAs could be more efficient than legislation.

The findings of the study reveal the immense importance of monitoring on the VEA's effectiveness and positive outcome. This is also supported by the former literature on the topic. Rezessy and Bertoldi (2011) argue that credible monitoring and evaluation of the outcomes are key factors for VEA's effectiveness. Thus, transparent reporting procedure, a methodology to secure certain standard and an independent verifier are needed for ensuring successful monitoring of VEAs.

Regulatory capture, free-riding, and transaction cost were identified as one of the major drawbacks of the studied phenomena, and this was supported by previous literature (Dalkmann et al., 2005). However, the findings confront previous studies that identify lack of obligations for industries, limited participation, data aggregation, and lack of efficient evaluation and enforcement as the main drawbacks of VEAs (Brink, 2002; BEUC, 2006; Heijden, 2012). For instance, the findings indicate that the Green Deals and WRAP agreements are rather inclusive and there is an efficient evaluation system of the results. In addition, the voluntary nature of the agreements and the lack of enforcement is seen as an advantage.

The research findings revealed that companies are motivated to participate in VEAs primarily as a result of the various incentives and benefits gained. For instance, free expertise and exposure, gaining competitive advantage, responsible image, and improving efficiency are some of the factors that motivate companies to participate. This is also confirmed by previous literature on the subject. For instance, Karamanos (2002) point out direct incentives, economic savings, strategic marketing, organizational culture, and public recognition as the leading motivating factors. However, the findings contradict previous views (Glachant, 2006; Fleckinger and Glachant, 2011) that participants get involved in VEAs only to avoid or postpone legislation. In fact, the results indicate that idealism, competition within an industry, data privacy, feedback, and dialogue with the government are key motivating factors. Thus, most of the participants in VEAs are highly motivated to work for the achievement of the targets.

According to the research findings, governments prefer voluntary approaches for tackling environmental issues as they want to avoid decreasing

companies' competitiveness by fining them in case of non-compliance. Former literature (Lyon and Maxwell, 2013) contradicts the findings by arguing that taxes and official legislation are better instruments than VEAs. This contradiction might lie in the cultural differences between the USA where the former research was conducted and the UK and Dutch agreements subject of the study.

The findings of the study thoroughly complement the former literature on best practices for stakeholder participation in environmental management. The eight best practices identified by Reed (2008) are applied in the various processes of the Green Deals and WRAP agreements. For instance, empowerment, equity, trust and learning are essential for the VEAs subject of the study. For WRAP agreements and the Green Deals, all potential participants are analyzed and evaluated according to their potential contribution to the agreements. Both voluntary approaches include the setting of clear goals and tailoring them to the individual needs and potential of the participants. Facilitation and integration of local and scientific knowledge is achieved through various events, regular communication, best practices sharing and access to expertise.

Besides those already mentioned, this study focused on some aspects of VEAs which are insufficiently described in former literature. The research findings revealed in detail the steps of entering into an agreement, actions undertaken by the organizing parties, challenges encountered throughout the implementation process and suggestions for improving. Certainly, some of these factors vary due to the variety of VEAs and their implementation in different countries. There is no literature available to describe these phenomena due to the fact that the Dutch Green Deals and WRAP agreements are relatively new. Hence, this study contributes to the body of literature on VEAs by providing insights on issues not explored in the past.

# 5.3 Implications for policy-makers and private actors

The aim of the study was to create a better understanding of the way the Dutch Green Deals and WRAP's agreements function. The research findings revealed in-depth information about the research phenomena based on the experience of various experts in this field. Each of them contributed uniquely with their knowledge and practical experience. Thus, this study describes the two voluntary approaches from an insider's perspective and provides valuable and useful information for conducting a successful voluntary agreement. For instance, policy-makers, governmental officials, experts, companies, NGOs and individuals might benefit from the research on the Dutch Green Deals and WRAP agreements.

This section assists policy-makers and private actors in starting a voluntary agreement and it is based primarily on the current research and the guideline for starting a Green Deal provided by Joan Prummel, a circular procurement facilitator at the Dutch Ministry of Infrastructure and the Environment. The guideline for starting a Green Deal presented in Appendix I provides further information on practical issues related to starting a national voluntary agreement with

the intention to develop knowledge or experience in collaboration and with the possibility to expand with new participants. Even though the guideline is intended to be applicable for more Green Deals, it is not suited for any Green Deal. For instance, there are over 200 Green Deals in the Netherlands and some of them are like the CPGD, but others may be completely different in the way they are organized and the way they work.

The guideline suggests that the first thing for setting a Green Deal is to find a client who supports the VEA and will be involved in the decision-making. After a collaboration is established with the client, the following two major phases are getting the agreement started and supporting the ongoing agreement. The findings of the study suggest that the interested parties in starting a voluntary agreement should first establish a network with other parties. This is also described in the guideline as creating a support foundation to bring the VEA further. Brainstorming with enthusiastic experts and professionals in the specific field is highly recommended. These negotiations are useful in shaping agreements' goals, potential, and limitations. The research findings and the guideline suggest that usually the negotiation process ends with forming a small group of partners who often become the steering or project group of the agreement.

The next step after forming the project team is setting the main goals to be achieved. Project teams who want to motivate the participants and encourage them the work and learn together should set ambitious but realistic goals. The findings of the study reveal that WRAP agreements have group goals and targets are tailored to signatories' individual needs and potential. On the other hand, in CPGD the only requirement is to start two circular procurement pilots of own choice and share everything you learn. There are certainly many ways to determine the aim of the agreement in the specific time frame. The steering group should first determine what is realistic to be achieved in two or three years and what are the needs of the potential participants. Once the aim is set, the next step is thinking of ways for achieving it. For instance, defining sub-goals, activities, requirements and fees for participation and the organizational culture are the logical steps for launching the Green Deal. This step should end with defining the concept of the agreement and preparing a multiple partner contract.

After the agreement's concept is set, the steering group should find suitable participants. The idea should be spread to a wider audience through lectures, presentations and interviews. All benefits of participation should be clearly communicated and advertised as they are the main arguments for convincing potential participants to join the voluntary agreement. The guideline suggests that a minimum number of participants should be set for starting the Green Deal and others can join at later point.

The guideline recommends that the launching of the agreement should be an event where high level managers from the participating organizations and government officials sign the official contract for participation. It is also recommended that the event is used for drawing the public attention on the Green Deal and thus raising public awareness of its existence, goals and members. For that purpose, a few famous guest speakers and reporters could be invited with the arrangement of giving interview from the event.

After the starting of the Green Deal, the next phase is to keep the agreement going by supporting and facilitating the process. The project team has a central role in this phase of the agreement. The research findings and the guideline suggest that engaging the participants is critical for the successful outcome of the Green Deal. Thus, knowledge management and communication are essential throughout the implementation process of the agreement. The initially set targets and plans should be followed and support should be provided when needed. In fact, the research findings in relation to the Dutch Green Deals support many of the recommendations in the guideline.

The main steps for starting a Green Deal according to the guideline are presented in FIGURE 13 below.

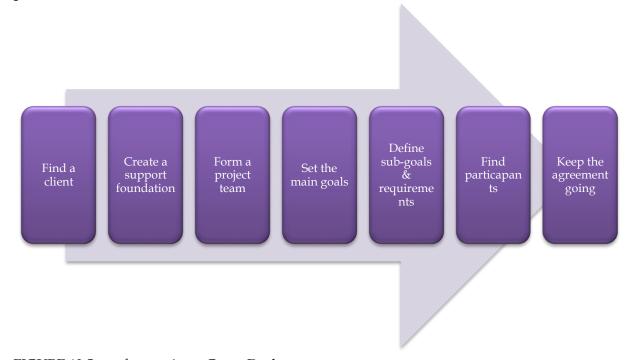


FIGURE 13 Steps for starting a Green Deal

# 5.4 Reliability and validity

The trustworthiness of a study depends on the way the data is collected, analysed and interpreted. The two common factors used for evaluating the quality of a study are reliability and validity. The reliability of a study is evaluated in regard of the repeatability of the research findings. A study is considered reliable if the research findings could be reproduced by a different researcher following the same research design and methodological choices. (Merriam, 2009) While some researchers argue that reliability is irrelevant to qualitative studies as it involves measurements (Stenbacka, 2001), others emphasize its importance as a means of quality evaluation. For instance, Patton (2002) states that reliability and validity are critical factors that need to be always taken into consideration both in quali-

tative and quantitative studies. Even though in qualitative studies different interpretations of the data might lead to different findings, a study is considered reliable if there is a consistency between the data and the research findings. (Merriam, 2009)

According to the research design, the data was planned to be collected through individual theme interviews. The fact that in one of the interviews participated two respondents is considered to have a minor impact on the reliability of the study. Firstly, the arrangement was made with only one of the respondents and the second decided to join the interview. Secondly, both of the respondents are colleagues and share similar knowledge about the subject of the study. Thirdly, the communication flow was natural and informal, thus both of the participants shared their views on the studied phenomena.

Another aspect that might have influenced the reliability of the study is the interviewer's lack of previous experience. For instance, an experienced researcher is expected to gather high-quality data and explore the subject of interest from different perspectives throughout the interviews. Thus, the researcher's lack of experience in conducting qualitative interviews might have had a negative impact on the quality of the gathered data. In order to minimize the risk of unreliable data the question template was prepared in advance with all of the main themes and possible additional questions.

Validity in qualitative studies refers to the extent the used methods, processes and data are appropriate for answering the key research questions (Leung, 2015). Validity is divided into two main categories: internal and external. Internal validity refers to the degree the research findings correspond to the reality, whereas external validity deals with the generalization of the results (Merriam 2009). In order to ensure the validity of the study, the researcher has described and justified in detail all the methodological choices and research findings. Moreover, only the most experienced professionals in regard of the VEAs subject of the study were selected to participate in the theme interviews. The initially contacted potential interviewees recommended some of their colleagues which possess deeper knowledge about the studied phenomena and their contribution to the study would be greater. This ensured the collection of relevant and credible data. The repeatability of experts' opinions in the data analysis proved the lack of coincidental research findings. The findings were presented transparently and direct citations from the interviews were included. This was believed to deeper reader's understanding of the studied phenomena.

The generalizability of the study might be affected by the specific cultural settings in the Netherlands and the UK. Even though the findings reflect the reality, they might not be fully applicable to other context and settings. For instance, VEAs approach might face implementation difficulties in certain countries due to the specific cultural characteristic. This argument is also supported by former literature which defines country as the most important factor influencing VEAs' effectiveness and success (Croci, 2003).

One strategy for improving the validity of qualitative studies is triangulation. Triangulation is a method of strengthening the validity of qualitative study

by using different methods and data sources for examining the studied phenomena (Patton 2002). Even though triangulation was not possible in this study due to the lack of previous research, the validity of the data was ensured through respondent validation. Respondent validation is a feedback distributed by the respondents on the quality of the collected data and interpretation (Torrance, 2012). In fact, some of the interviewees required to review the analysis and interpretation of the data in order to confirm its quality and comment on the content.

# 5.5 Limitations and suggestion for future research

This section addresses the limitations of the study and suggestions for future research. The most significant limitation of the current research is the lack of previous literature on the topic. This limitation was enhanced by the language barrier for reaching information on the Dutch Green Deals. Most of the published information was in Dutch, thus it was not accessible for the researcher. Nevertheless, the current research provides credible in-depth information on the CPGD and WRAP voluntary agreements, which could be of great benefit for future researchers and interested parties in VEAs. Hence, this study bridges the gap of knowledge in the field of voluntary agreements.

The inability of the researcher to reach companies participating in the VEAs subject of the study was considered a limitation. Even though researcher's efforts to involve 30 companies in the interviews, their unwillingness to share private information deprived the research from exploring this valuable aspect. In fact, protection of private data was one of the fundamental principles of the studied voluntary agreements. Nevertheless, the eight experts that took part in the interviews shared their opinion on corporate participation, main motivating factors and attitudes. Thus, it could be concluded that the study benefited tremendously from experts' objective opinion and views on stakeholder participation in VEAs.

Due to the lack of research in this field, future researchers might focus on studying various voluntary agreements in different contexts. Even though the focus in this study was on national VEAs, during the interviews attention was paid on the importance of international VEAs. The demand for international VEAs stems from the fact that certain environmental issues need to be addressed on international level. The North Sea Resources Roundabout on recycling and the European innovation deals are examples of international voluntary agreements. Thus, research on the effectiveness of international versus national VEAs will enrich the literature on this topic and encourage stakeholder participation.

Another topic for possible research could be exploring the cultural factors which determine the effectiveness and success of VEAs in different countries. What would the possible solutions be if culture hinders the development and implementation of VEAs? Would the support provided by international VEAs help the countries to overcome the cultural characteristics on national level that

hinder VEAs' application? Thus, it could be concluded that the novelty of VEAs' concept provides vast opportunities for future researcher.

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## **APPENDICES**

# Appendix I

Guideline for starting a collaboration Green Deal aiming at developing knowledge or experience provided by Joan Prummel, a circular procurement facilitator at the Dutch Ministry of Infrastructure and the Environment

This guideline is based on the successful 'Green Deal Circular Procurement' in The Netherlands. The Green Deal is a three-year collaboration agreement between public and private participants and the national government. All of them in the role of procuring organization and with the aim to learn how circular procurement works for Dutch organizations and share all the lessons with others. In the Green Deal, every participant is committed to start two pilots with circular procurement and to share the findings on organizational process, procurement steps and results. The Green Deal started with 16 participants and now has over 40, meaning that there is a potential of more than 80 pilots to learn from.

Part of the success of the Green Deal is that experimenting in itself seems to be stimulating. Within the own organization and towards others. That is the main reason that it grew from 16 to over 30 participants in the first year. Broad and positive communication is key in this, as is the fact that it is an agreement with the national government. There are over 200 Green Deals in The Netherlands, which all have to do with sustainability projects and solving issues or learning and understanding. Working together with the government on practical issues raises attention of the media and delivers some positive feedback about the participants (public relations is always important).

The success of the Green Deal Circular Procurement can be attributed to a combination of circumstances: experimenting in a popular field (circular economy), working with the national government, public and private partners learning together, media attention, successful first steps and beneficial on several levels for all participants: working on new developments, getting involved in a new network of likeminded, learning how to improve sustainable procurement, better reputation (sustainable, circular, frontrunner, taking responsibility).

## Process

The idea cannot be 'to have a successful agreement like the Dutch Green Deal'. Creating something like the Green Deal is not a matter of copy and paste! It's important to work with your own ambitions and ideas and to look for the possibilities and opportunities in your country. It should represent what's important in your country in a structure that's familiar for your countries culture and society.

The process to come to such an agreement is fairly easy to describe, but it takes a lot of effort to accomplish. The first phase is to get it set up and started

and is primarily about networking. The second phase is to keep it running and is about project leadership, commitment and perseverance.

The steps below assume that the project has a client. If not done yet, the very first thing to do is to find and approach your client. Who wants you to do this, gives you the time to work on it and will be satisfied when you are successful? Make it an assignment to set up the collaboration agreement and make sure that your client is involved in all major decisions.

## PHASE ONE - Get it started

# Step 1 - From idea to project

This first step is of great importance, it's when the initiator of a deal creates a foundation of support to bring it further. Share the idea with a few experts and professionals (not organisations!) with knowledge, authority and ambitions on circularity and on sustainable procurement. In this phase, it's important to listen: What are the possibilities? What are the opportunities? How big are the ambitions? Discussing the idea with experts will sharpen it and make it robust and sensible. The first step ends with forming a small group of enthusiastic partners (with their own assignment to make the project work) as an organising committee who are all from their own interest committed to the success of the agreement. Their assignment is to follow the rest of the steps and get the agreement started. It makes sense if this group grows into the project team that steers and guides the project from kick-off and organises the activities.

## Step 2 - Setting the aim

Once there is a project team it is important to set the mutual aim. What do you want to achieve in the end? Be realistic in the goals you set, 'everybody procures 100% circular' is impossible. What is realistic after one, two and three years? Is that what potential participants want or need? If so, what are the logical steps? What are the commitment and effort you want/need/can expect from participants? The aims described should be discussed and sharpened in broader networks: your networks as the organising committee. That's the way to set ambitious but realistic goals that can unite organisations and make them work and learn together.

## Step 3 - Making the programme

If the aim is set it's time to consider the best way to achieve it. Define sub-goals, think of logical steps towards these goals and design the programme in aims, sub-goals and activities, including organisational structure (steering group, project team, et cetera), conditions for participation (start pilots, share experiences), expectations from each participant (are there different roles and thus different types of participants?), an annual fee if needed (knowledge management takes time from an expert), some rules and regulations about joining and leaving the agreement, et cetera. This step ends with the delivery of the concept agreement, which has the appearance of a multiple partner contract.

## Step 4 - Finding partners

Now it's time to approach and find participants. Share the idea and the aim of the agreement with a broader audience, give presentations and lectures, write articles and do interviews. All for selected audiences, where you expect to find the likeminded who actually want to do something. It is still possible to alter the concept agreement to get participant on board, but be careful with that, because a change in favour of the one can be a hurdle for another. Better is to convince your potential participants that they should join this agreement as it is set up. The arguments are easy: all the benefits coming from participating. Set a minimum number of participants to start with and communicate from the beginning that organisations can easily join later if they are not ready yet.

# Step 5 - Kick-off

Arrange the kick-off as a party. Let the agreement be signed by the responsible high level manager or politician, have a higher-level manager or politician sign on behalf of the national government, have one or two well-known and appreciated (international) speakers, invite the press with the possibility of an exclusive interview with one or two people and yourself, send out a press release about your event and the main goals you want to achieve. Every participant must leave the kick-off event with a proud feeling that he is part of this bigger movement that will create and drive change...

## PHASE TWO - Keep it running

In this phase, it's important to have the project team committed and available. The primary task of the project team is to manage the project. Make a planning for the actions and communicate this with the participants, organize what you have designed in the programme and communicate, start with the knowledge management and communicate, find lessons from your pilots (and elsewhere) and communicate. Communication and knowledge sharing are key to keep the participants involved. Involvement is conditional for the success of the agreement.

## Support

The Dutch have an interest in stimulating pilots with circular procurement in other countries, because circular economy doesn't end at the country borders. Therefore, support and guidance are available for both phases and every step in between. DG Environment (European Commission) stimulates peer-to-peer support between member states on specific topics and questions and has some funding reserved for this. Supporting another country to set up their own active learning system on circular procurement may be eligible for this arrangement.

## Appendix II

# Courtauld Commitment: Facts and Figures (WRAP, 2016h)

## FIGURE 1 Courtauld Commitment 1

# **FOCUS**

Courtauld 1 (2005-2009) looked at new solutions and technologies so that less food and primary packaging ended up as household waste. It brought food waste onto the agenda.

Over the four year period of Phase 1, 1.2 million tonnes of food and packaging waste was prevented, with a monetary value of £1.8 billion, and a saving of 3.3 million tonnes of  $CO_2e$ , which is equivalent to the emissions from 500,000 round-the-world flights.

As a result of actions by signatories, Love Food Hate Waste, local authorities and charity partners, 670,000 tonnes of food waste and 520,000 tonnes of packaging waste was avoided across the UK.

## **EXAMPLES**

- Cadbury, Mars, Nestlé, and grocery retailers achieve major reductions in Easter egg packaging.
- The Co-operative Food introduce food storage tips on their fresh produce bags.
- Dairy Crest launches innovative milk eco-pouches for use in reusable jugs.
- innocent drinks reduces packaging and increase the recycled content in their bottles.
- Significant reductions in glass packaging in the wine, beer and food categories.

1.2Mt
Packaging and
Food Waste
prevented

3.3Mt CO<sub>2</sub>e saved

£1.8bn

## FIGURE 2 Courtauld Commitment 2

## Results

10% less packaging impact

3.7%

less household food and drink wasted

7.4% less waste in the

less waste in the supply chain

# **FOCUS**

Phase 2 (2010-2012) built on Phase 1, still aiming to reduce primary packaging and household food and drink waste, but also included secondary and tertiary packaging, and supply chain waste. It moved from reducing weight to reducing the carbon impact of packaging.

A total of 1.7 million tonnes of waste was reduced through the influence of Phase 2. This impact has a monetary value of £3.1 billion and equates to a reduction of 4.8 million tonnes of  $CO_2e$ .

Enough waste has been saved to fill 184,500 refuse lorries. If lined up nose to tail, these would stretch from Edinburgh to Geneva

## **EXAMPLES**

- Asda increases the shelf life of over 1,500 products for their customers by implementing efficiencies to their delivery and store systems.
- Premier Foods introduces lightweight packaging for Hovis and Sun-Pat products.
- Morrisons and Kerry Noon collaborate to reduce manufacturing waste and cut packaging of ready meals.
- Heinz launches its latest evolution of Heinz Beanz; a recloseable 'Fridge Pack' to help reduce food waste.

## FIGURE 3 Courtauld Commitment 3

## **FOCUS**

We have worked with the sector to develop a Courtauld Commitment 3 that helps deliver sustainable growth, save money and reduce environmental impact by focussing further on waste reduction in the food and drink sector, specifically it will:

- Reduce food waste:
  - In the home
  - . In the supply chain
  - Via packaging designed to improve food waste prevention
- · Reduce retail and manufacturing waste, by
  - Preventing and reducing grocery ingredient & product waste
- · Improve packaging design, to:
  - Help consumers reduce waste
  - Make it easier to recycle
  - Increase recycled content
  - Ensure there is no increase in total carbon impact of packaging. This could mean an average reduction in carbon intensity per pack of a further 3%.

Achieving targets could deliver

£1.6bn
of benefits to
consumers, to the
food and drink
sector and local
authorities

1.1Mt of waste reduction 2.9Mt of COze saved

## **TARGETS**

- Reduce household food and drink waste by 5% by 2015
- Reduce traditional grocery ingredient, product and packaging waste in the grocery supply chain by 3% by 2015.
- Improve packaging design through the supply chain to maximise recycled content as appropriate, improve recyclability and deliver product protection to reduce food waste, while ensuring there is no increase in the carbon impact of packaging by 2015.