

# THE FLEMISH GREEN DEAL INSTRUMENT IN THE TRANSITION TO A SUSTAINABLE ECONOMY: A CASE STUDY ANALYSIS

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## ACKNOWLEDGMENTS

As a final step in our Business Engineering studies, we present this master's dissertation. We firmly believe in the necessity of societies to look for ways to transition towards sustainability. It is this belief that has motivated us to delve deeper into the Flemish Green Deal instrument and make it the focus of our research.

During the preparation of this work, we used ChatGPT-GPT4.0 to assist with spelling and writing of some sentences. After using this tool/service, we reviewed and edited the content as needed and take full responsibility for the publication's content.

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Last but not least, we want to thank our friends and family for their continuous support along the way.

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## **ABSTRACT**

**Purpose** – Flemish Green Deals are becoming increasingly prominent in Flanders, Belgium, as a key instrument for achieving the EU's long-term sustainability objectives. This master's dissertation has two primary aims. The first objective is to develop a Green Deal Performance framework usable for analyzing and explaining the Flemish Green Deal performance in the transition towards a sustainable economy. The second aim is to apply this framework to the Flemish Green Deals instrument, in order to evaluate its performance by assessing both the goals achieved and the factors responsible for this goal achievement. This implementation phase also incorporates the provision of recommendations for future improvement of the instrument.

**Design/methodology/approach** – A case study was conducted incorporating six Flemish Green Deals. This research involved conducting in-depth interviews, analyzing secondary data, and administering a concise online survey.

**Findings** – The Flemish Green Deal instrument is able to achieve all goals outlined in the Green Deal Performance framework. In concrete, each investigated Flemish Green Deal accomplished a minimum of four Green Deal goals. This research concludes that the Flemish Green Deal instrument does have the ability to enable the transition towards a sustainable economy. Still, improvements of the instrument can be made based on the recommendations outlined. In addition, 15 factors contributing to the Green Deal goals were identified, comprising 13 internal and two external factors.

**Originality/value** – This master's dissertation contributes to the existing literature on systemic instruments and stakeholder engagement in driving sustainability transitions. It explores the impact of practical measures integrated into systemic instruments and the context in which these instruments operate on their ability to facilitate such transitions.

**Key words** – Flemish Green Deal, sustainability transition, sustainable economy, systemic instrument, Green Deal Performance framework

**Paper type** – Master's dissertation

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# 1 INTRODUCTION

The latest report of the Intergovernmental Panel on Climate Change (IPCC) (2023) indicates that climate change poses a major threat to human well-being and planetary health, and highlights the rapidly closing window of opportunity to secure a viable and sustainable future for all. Furthermore, the IPCC (2023) states that decisions and measures taken within this decade will yield consequences now and for millennia to come. These climate and environmental challenges possess systemic characteristics (EEA, 2015). Therefore, with the European Green Deal, the EU established new long-term sustainability objectives, which demand systemic change through sustainability transitions (Geels et al., 2019). In Flanders, the Flemish Green Deal serves as a key instrument to achieve these objectives (Departement Omgeving, n.d.).

This master's dissertation focuses on the performance of the Flemish Green Deal for two main reasons.

Firstly, Green Deals in Flanders are a fairly new instrument introduced by the Flemish government, as the first Flemish Green Deal took off in 2017 (Bieseeman & Kamas, 2019). To the best of our knowledge, only one overarching analysis on this instrument has been executed since then, namely by the research center 'Vlaams Planbureau voor Omgeving' (VPO) in 2019. At that time, however, no Flemish Green Deal was finished yet, which made it impossible to truly evaluate the overall performance (i.e., from inception to completion) of the analyzed Green Deals. Because of this, based on our current understanding, no academic evidence is available on whether or not the Flemish Green Deal instrument is an effective tool in the transition towards a sustainable economy. In a related vein, it is unclear exactly how the performance of a particular Green Deal is or should be defined, as no framework for analysis has been developed yet tailored to the specific context of Flemish Green Deals. In concrete, an overarching, comprehensive outline of the instrument's goals is lacking to this day.

Secondly, it is vital to provide insight into the factors responsible for the performance of the Flemish Green Deal instrument because, to the best of our knowledge, these explanatory factors have not been pinpointed to this date. However, it is only possible to take well-informed decisions on how to improve the instrument by identifying the elements explaining the instrument's performance. In June 2024, twelve Flemish Green Deals are in execution and three others are in preparation (Departement Omgeving, n.d.). It is, therefore, clear that the Flemish government is currently supporting this instrument and intends to continue leveraging it in the future as well, in order to achieve the targets set in its transversal policy note 'Vision 2050, a long-term strategy for Flanders' (Departement Kanselarij en Buitenlandse Zaken, n.d.).

Building upon the aforementioned arguments, this master's dissertation aims to develop and implement a **Green Deal Performance framework**, for analyzing the performance of the Flemish Green Deal instrument and for pinpointing the factors responsible for this performance. To achieve this end, two key frameworks acquired from academic literature (cf. Development of Green Deal Performance framework) are integrated and the Flemish Green Deals are analyzed by means of case study research (cf. Implementation of the Green Deal Performance framework).

The literature on system innovation and transition management has paid attention to the role of systemic instruments and stakeholder engagement in driving sustainability transitions. However, it has not yet explored the impact of practical measures integrated in systemic instruments and the context in which these systemic instruments operate on their ability to facilitate such sustainability transitions. This research contributes to the existing literature by analyzing this impact. From a practical point of view, this master's dissertation offers insights into potential adjustments that could improve the Green Deal instrument in Flanders, Belgium.

The master's dissertation is constructed as follows. The literature review is presented in Chapter 2 and concludes with the development of a Green Deal Performance framework. Chapter 3 describes how this framework was implemented by means of case study research. The findings of this case study and the discussion of the results can be found in Chapter 4 and Chapter 5, respectively. Finally, Chapter 6 provides limitations and further research avenues.

## **2 LITERATURE REVIEW**

The literature review is structured in the following manner. Firstly, the Green Deal instrument is conceptualized and discussed, both in general and in the Flemish context. Afterwards, an overview is given of the literature on the transition towards a sustainable economy. Here, the concepts of sustainability, sustainable economy, and sustainability transition are defined. Next, the literature review outlines how systems can be innovated and managed in order to achieve a sustainability transition. More specifically, it will be delineate how system innovations occur, which instruments can be leveraged to manage these innovations, and which practices exist for engaging actors in the transition towards a sustainable economy. Finally, based on all preceding insight acquired, the Green Deal Performance framework will be developed and explained.

### **2.1 Green Deal instrument**

First, this literature review delves into the definitions and characteristics of the Green Deal instrument, including both general and Flemish Green Deals.

#### **2.1.1 General Green Deal instrument**

The general concept of a Green Deal was first presented as a result of the financial crisis of 2007-2008 (Smol, 2022). This concept encompassed the integration of environmental considerations into economic and social recovery plans with the main objective of incorporating climate change mitigation while addressing social inequality and reducing economic disparities for the public (Aşici & Bünül, 2012; Galvin & Healy, 2020).

According to Smol (2022, p. 10), a **Green Deal** can be described as “a strategy for mobilization of whole communities and enterprises to create a clean and green economy, through implementation of pro-environmental solutions in various sectors, which take into account the three aspirations of sustainable development: the well-being of people, the environment, and economic sustainability.”

A large variety of green concepts, such as 'Green Deal', 'Green New Deal', and 'Global Green New Deal', have been introduced as international and national policies in various regions and nations worldwide (Smol, 2022). The shared core principle among these initiatives is the significance of taking actions to protect the environment and climate, while also considering financial aspects and the well-being of people (Smol, 2022).

#### **2.1.2 Flemish Green Deal instrument**

The Flemish Green Deal instrument has been inspired by the Dutch Green Deal, which was first introduced in 2011 as a way to provide space for innovative, sustainable initiatives from society

("Aanpak | GreenDeals," 2021). Through the Dutch Green Deal instrument, the Dutch government aims to help companies, civil society organizations, other governments, and citizens in removing obstacles (e.g., legal and regulatory barriers, creation of new markets, knowledge sharing, network creation) encountered during the implementation of sustainable initiatives ("Aanpak | GreenDeals," 2021). This Dutch Green Deal instrument aims to facilitate collaborations between various participants based on mutual agreements and to inspire others to create sustainable initiatives as well ("Aanpak | GreenDeals," 2021).

A **Flemish Green Deal** can be defined as an initiative of the Flemish government to make businesses, sectors, and the broader economy more sustainable or 'green' by creating voluntary and ambitious agreements between companies, organizations (e.g., research institutions, NGOs), and the government, in order to realize sustainable initiatives in the short term (i.e., about three to four years) (Departement Omgeving, n.d.). Flemish Green Deals entail an effort commitment rather than a result commitment (Departement Omgeving, n.d.). With this instrument, the Flemish government aims to green the economy, bring parties together, detect needs of companies, organizations, and civil society, and remove bottlenecks regarding legislation, financing, and governmental support (Departement Omgeving, n.d.). The government also intends to increase the visibility of sustainable initiatives (Departement Omgeving, n.d.).

Furthermore, the instrument adopts a participatory approach, leveraging societal dynamics to tackle environmental challenges (Bieseman & Kamas, 2019). The Flemish Green Deal instrument is specifically intended for issues that benefit from collaboration, bottom-up approaches, and initiatives originating from society (Bieseman & Kamas, 2019). The instrument, as defined by the Flemish government, is not intended to be a subsidy mechanism ("Green Deal gids," 2021). The Flemish Green Deal participants or organizers, thus, do not necessarily receive financial support or prioritized access to subsidies or tax measures ("Green Deal gids," 2021).

Each Flemish Green Deal centers around a current issue, ranging from packaging to biodiversity to the construction sector (Departement Omgeving, n.d.). The themes of the Flemish Green Deals and the European Green Deal are closely intertwined as they both cover subjects such as climate, environment, energy, transport, food, and industry (Departement Omgeving, n.d.). The Flemish Green Deal instrument, therefore, contributes to the goals of the European Green Deal (Departement Omgeving, n.d.).

The objective of a Flemish Green Deal is often complex and requires customization, making one form of steering more defensible for one Green Deal than for another. According to Bieseman and Kamas

(2019), Flemish Green Deals aim to tackle ‘wicked problems’ (i.e., complex problems). These kinds of problems are complex in terms of knowledge and understanding, and require a large number of interdependent stakeholders to solve them (Vandenbroucke, 2012).

To start a Flemish Green Deal, its topic must receive approval from the Green Deal Counter, which is the entity responsible for supervising all Flemish Green Deals (Departement Omgeving, n.d.). Once approved, the organizers attract multiple organizations to participate in their Green Deal (Departement Omgeving, n.d.). Subsequently, throughout the predetermined duration of the Green Deal, participants engage in various projects, workgroups, and other activities part of the Green Deal initiative (Departement Omgeving, n.d.).

From now on, the terms ‘Green Deal’ and ‘Flemish Green Deal’ will be used interchangeably.

## **2.2 Transition towards a sustainable economy**

As Flemish Green Deals aim to make the Flemish economy more sustainable, the concepts of both sustainable development and sustainability should be discussed, and a definition of a sustainable economy needs to be provided. Afterwards, the literature on sustainability transitions can be outlined.

### **2.2.1 Sustainability and sustainable economy**

The World Commission on Environment and Development (WCED, 1987, p. 41) defined **sustainable development** as “development that meets the needs of the present without compromising the possibilities of future generations to meet their own needs” in the Brundtland Report. Al-Thani and Кочкодан (2023, p. 13) adapted this definition of sustainable development to “a value-based, dynamic balancing process of sustaining a system that meets the needs of all today’s living species, while not compromising the system’s ability to meet future needs of all living species”.

Since the definition of sustainable development by the WCED, a wide variety of definitions have been created for both sustainable development and sustainability (Johnston et al., 2007), indicating their broad functionality (Vos, 2007). Furthermore, future changes in these definitions are considered inevitable, as the environment and societies are complex and dynamic systems, with new challenges constantly emerging (Vos, 2007). As a result, the understanding of these systems is also constantly evolving (Vos, 2007). On the other hand, Johnston et al. (2007) argue that the absence of a clear interpretation or solid understanding of sustainability is problematic and may even result in the adoption of definitions that are *less* sustainable.

Drawing from the broad spectrum of available definitions, Vos (2007) concluded that the concept of sustainability encompasses three core elements. The first key element is the importance and

interconnectedness of three sustainability dimensions, namely **social sustainability, economic sustainability, and environmental sustainability** (Hallin et al., 2021; Korhonen, Honkasalo, & Seppälä, 2018; Kruja, 2013; Vos, 2007). Notably, Udo (2011) replaces economic sustainability with technological sustainability, emphasizing the technological aspect of sustainability. A second key element of sustainability is its focus on **intergenerational equity** (Vos, 2007), which aligns with the concept of sustainable development. Sustainability encapsulates the importance of adopting a long-term perspective, covering multiple generations (Hallin et al., 2021; Vos, 2007). Lastly, sustainability emphasizes working **beyond mere compliances with current regulations and laws**, but rather proactively staying ahead of them (Vos, 2007).

After having delved into the concept of sustainable development and sustainability, a **sustainable economy** can now be defined as “an economy that serves the needs of society without exceeding the planetary boundaries and in a way that can be generalized for future generations and other countries” (Jacob et al., 2019, p. 204). Furthermore, based on the sustainable development definition of Al-Thani and Кочкодан mentioned above, a sustainable economy can also be described as “a value-based, dynamic and balanced economic system that meets today’s all living creatures’ needs within ecological and social limits, while not compromising the system’s ability to meet future needs of all living creatures” (Al-Thani & Кочкодан, 2023, p. 14). Both definitions of sustainable economy are closely aligned, stressing the imperative of meeting current needs without jeopardizing future generations and advocating for an economically balanced system within ecological limits.

### 2.2.2 Sustainability transition

In order to achieve a sustainable economy, sustainability transitions <sup>1</sup> are required. **A transition** is a long-term process, which can take one or multiple generations, of non-linear social change that leads to new constellations of actors, structures, and practices that determine the functioning of the system (De Haan, 2007). The word ‘transition’ encompasses the new state, the path towards this new state, transition problems, and the diverse set of internal and external developments which influence the outcome (Rotmans, 2005). Aligning with this notion, Lahtinen and Yrjölä (2019, p. 815) define **sustainability transitions** as “fundamental changes in societal cultures, structures, and practices through which established socio-technical systems shift to more sustainable modes of production and consumption.” Striving for a transition towards sustainability involves proceeding towards a predefined idea or end-state of sustainability (Hallin et al., 2021). These sustainability transitions have gained significant focus in academic and policy spheres (De Haan & Rotmans, 2018) as they are

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<sup>1</sup> Transitions are sometimes called ‘transformations’ in literature.

considered unpreventable for organizations to survive the uncertainty and instability of the corporate sector (Intezari, 2015).

Structural, interdependent transformations in technology, economy, culture, and organizations are needed over a long period of time in order to achieve sustainability (Hallin et al., 2021). Notably, this requires radical improvements, as incremental improvements are insufficient (Jacob et al., 2019; Lorek & Spangenberg, 2014). Furthermore, to optimize the transition, clear and comprehensible support and a wide variety of data sources are needed, together with simplified tools and approaches for complex systems (Stucki et al., 2021).

Based on the definition of sustainability transitions, it is clear that firms are incapable of realizing this transition on their own. According to Loorbach et al. (2009), companies can and should play a key role in fostering more environmentally responsible production and consumption practices within society, but cannot carry the full responsibility of moving a society towards a more sustainable future. Businesses must view themselves as dynamic, co-evolving actors within a broader societal ecosystem in order to achieve innovation leading to increased sustainability (Könnölä & Unruh, 2007).

To realize a sustainability transition, system change is required, which can happen by innovating and managing the system appropriately (Loorbach et al., 2009). **System innovation** is a large-scale transformation of the way societal functions (e.g., transportation, communication, housing, sustenance) are carried out (Elzen, Geels, & Green, 2004). Furthermore, an innovation is considered 'systemic' when it has the intention to reform societal laws and regulations in order to introduce new facilitators and constraints on innovation (Midgley and Lindhult, 2011). In addition, often, multiple innovations are involved in a systemic innovation (Bergman et al., 2008; Whitmarsh & Nyqvist, 2008). Together, these innovations move society towards a tipping point beyond which a favorable model of production and consumption may emerge (Bergman et al., 2008; Whitmarsh & Nyqvist, 2008). **Transition management**, in turn, is a prescriptive governance approach for innovating the system for sustainability (Loorbach et al., 2009). Via transition management, one aims to influence the direction and speed of a transition process (Avelino & Rotmans, 2009).

### **2.3 Innovating and managing systems for sustainability transitions**

This section outlines how systems can be innovated and how the transition to a new system can be effectively managed. In this context, particular emphasis is placed on the importance of systemic instruments and actor engagement practices.



### 2.3.1 Dynamics of system innovation

In order to understand how the innovation of systems occurs, the **multi-level perspective (MLP) of system innovation** was developed by the Dutch sociologist Frank Geels (2002). This model stands as one of the major perspectives in the field of system innovation and transition management. It aims to understand and analyze technological and societal transition processes, and clearly encapsulates the dynamic nature of system innovation through its layered structure (Geels, 2002). The MLP model was refined various times (Geels, 2005; Geels & Schot, 2007; Geels et al., 2017; Geels, 2018).

The MLP model states that **socio-technical transitions** occur through the interaction of processes within and between **three analytical levels** which form the socio-technical system: the socio-technical landscape (macro-level), the current socio-technical regime (meso-level), and niche-innovations (micro-level) (Geels, 2005).

In this layered model, the **socio-technical regime** or **current regime** is the central focus. It forms the 'deep structure' that explains the stability of an existing socio-technical system (Geels, 2011). The socio-technical regime refers to the semi-coherent set of rules and institutions that guide and coordinate the activities of the social groups that, in turn, perpetuate the various elements of the incumbent socio-technical system (Geels, 2004). Thus, this collection of rules and institutions both constructs and is constructed by actors in a system (Geels, 2004, 2011). Examples of these regime rules are cognitive habits, shared beliefs and values, capabilities and competencies, lifestyles and user practices, institutional arrangements and regulations, and legally binding contracts (Geels, 2011). Socio-technical regimes are formed by dynamically interacting components such as technologies, user practices, markets, regulations, culture, and infrastructure (Geels, 2006). When investigating and planning for innovation at system level, it is essential to consider these components altogether (Geels, 2006).

**Niche innovations** are emerging social or technical innovations that differ radically from the prevailing socio-technical regime (Geels & Schot, 2007). They are carried and developed by small networks of committed actors, who learn and experiment together, and are often outsiders or fringe actors (Geels & Schot, 2007). Furthermore, niche innovations occur in 'protected spaces' (i.e., niches) (Geels & Schot, 2007). The niche embodies a new set of regulations and institutions, the whole of alternative structures, cultures, and practices directed towards fulfilling societal needs (Giganti & Falcone, 2022). In the MLP model, niches signify alternative socio-technical arrangements that have not yet attained a significant level of institutionalization, but potentially serve as early-stage cores for future regime structures (Fuenfschilling & Truffer, 2014). They form the micro-level where innovations emerge and

act as 'incubation rooms', shielding these novelties against mainstream market selection (Schot, 1998; Kemp, Schot, & Hoogma, 1998). In other words, niches are protected spaces where new technologies can mature and harmonize with a suitable institutional context (Fuenfschilling & Truffer, 2014). This protection can be provided by regulatory support, modified preferences among specific user segments, or by other tailored institutional contexts (Smith & Raven, 2012). The process of protecting an innovation initially, as a way to allow its development from an idea or prototype to a technology that is actually used, is called strategic niche management (Gaziulusoy, 2010). One common method for establishing niches involves initiating experimental implementation projects (Hoogma et al., 2002).

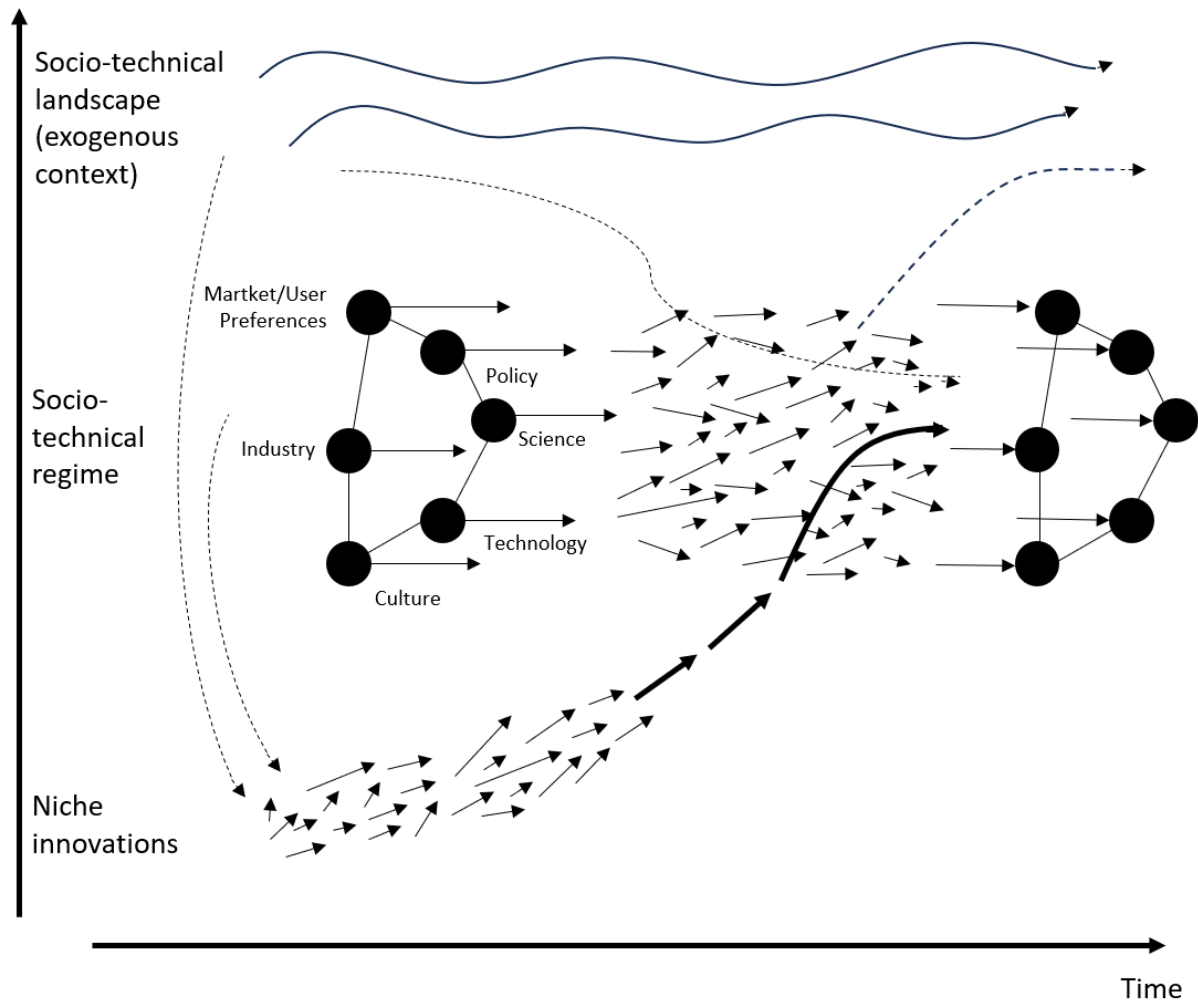
The broader contextual developments that influence the socio-technical regime are referred to as the **socio-technical landscape** or **exogenous context** (Geels, 2006). This landscape entails both slow changing and structural trends (e.g., demographics, ideology, spatial structures, geopolitics) as well as exogenous shocks (e.g., wars, economic crises, political upheavals) influencing society as a whole (Geels, 2006). This landscape cannot be altered intentionally and is beyond the direct influence of components of the socio-technical regime (Geels, 2006). Changes at the landscape level typically unfold gradually, spanning decades (Geels, 2006). However, they can sometimes occur rapidly as well (e.g., during times of war) (Geels, 2006).

The three layers of the MLP model **influence change at other levels** in a dynamic way (Geels, 2006). Niches can change regimes, which may change the landscape in the longer term (Geels, 2006). Landscape changes, in turn, can put pressure on the existing regime, but only if they are perceived and acted upon by regime actors (Geels & Schot, 2007). Therefore, outsiders (e.g., societal pressure groups, scientists, outside firms) are crucial, as they translate landscape pressures and draw attention to negative externalities, which regime insiders tend to neglect (Van de Poel, 2000). Furthermore, in the revision of the MLP model by Geels and Schot (2007), downward arrows were added from the socio-technical landscape and regime towards the niche-level, expressing the influence of landscape and regime developments on niches. This change was retained in later versions of the model (Geels et al., 2017; Geels, 2018). The adapted MLP model, developed by Geels (2018) can be found below in Figure 1.

Innovations with highly novel characteristics, particularly those tied to environmental or social sustainability, often do not align smoothly with the existing socio-technical regime characteristics (Fuenfschilling, 2019). This can be explained by the fact that the successful development, market introduction, and diffusion of a niche-innovation require simultaneous adjustments in all major

aspects of the incumbent socio-technical regime (Giganti & Falcone, 2022). These adjustments in the socio-technical regime are, however, limited by the rather rigid exogenous context (Geels, 2006).

Figure 1: Multi-level perspective model (Adopted from Geels, F.W. (2018) Copyright CC BY-SA 4.0)



### 2.3.2 Instruments for managing system innovation

Systemic instruments play an important role when managing system innovations, including sustainability-oriented system innovations (Wieczorek & Hekkert, 2012). In order to transition from the current socio-technical system to a new, more sustainable one, the system innovation process requires instruments that support systemic functions, so called systemic instruments (Van Mierlo et al., 2010).

Wieczorek and Hekkert (2012) define **systemic instruments** as tools that are expected to improve the functioning of entire (innovation) systems. These instruments target the entire innovation system instead of focusing on specific parts of it, and support processes that are critical for managing innovation (Smits & Kuhlmann, 2004). Furthermore, these instruments aim to foster opportunities

and conditions for system formation by influencing elements and connections within the system that would, otherwise, not have emerged naturally (Wieczorek & Hekkert, 2012). Therefore, systemic instruments help to stimulate networks of interdependent actors initially lacking systemic characteristics, to act in a more synergistic way, thereby effectively transforming into 'a system' (Van Mierlo et al., 2010). Besides the development of a system, systemic instruments are anticipated to increase innovation rates, if well-designed (Wieczorek & Hekkert, 2012).

Systemic instruments aim to tackle issues arising at the innovation system level (i.e., systemic problems) (Wieczorek & Hekkert, 2012). **Systemic problems** negatively influence the pace and direction of innovation processes and hinder the advancement and functioning of innovation systems (Wieczorek & Hekkert, 2012). Four categories of systemic problems were identified by Wieczorek and Hekkert (2012), namely actors' problems, institutional problems, interaction problems, and infrastructural problems. Each of these problems may be of two types: presence-related or property-related (Wieczorek & Hekkert, 2012). This results in eight types of systemic problems (Wieczorek & Hekkert, 2012).

Wieczorek and Hekkert (2012) proposed a framework containing eight goals that systemic instruments aim to achieve in order to address these systemic problems. These goals describe what a systemic instrument should do in order to establish conditions wherein innovation system functions have the highest chance of occurring (Wieczorek & Hekkert, 2012). An overview of **the goals of systemic instruments** and their related systemic problems is given in Table 1.

Table 1: Goals of systemic instruments per type of systemic problem (Adapted from Wieczorek and Hekkert (2012) Copyright CC BY-SA 4.0)

Systemic problem	(Type of) systemic problem	Goals of systemic instrument
Actors' problems	Presence?	Stimulate and organize participation of relevant actors (1)
	Capabilities?	Create space for actors' capability development (2)
Interaction problems	Presence?	Stimulate occurrence of interaction (3)
	Intensity?	Prevent too strong and too weak ties (4)
Institutional problems	Presence?	Secure presence of hard and soft institutions (5)
	Capacity?	Prevent too weak and too stringent institutions (6)
Infrastructural problems	Presence?	Stimulate physical, financial and knowledge infrastructure (7)
	Quality?	Ensure adequate quality of infrastructure (8)

The systemic instruments outlined by Wieczorek and Hekkert (2012) resonate with what Verleye et al. (2023) have described as engagement practices for a circular economy. When comparing the definition of a circular economy (Kirchherr, Reike, & Hekkert, 2017), with the definition of a sustainable economy of Al-Thani and Кочкодан (2023) as mentioned previously in this literature review, one can note that both have a strong connection with sustainable development. A sustainable economy, on the one hand, is an economic system consistent with sustainable development (Al-Thani & Кочкодан, 2023). A circular economy, on the other hand, aims to accomplish sustainable development (Kirchherr et al., 2017). In this sense, the circular economy can be seen as a concrete approach to achieve a sustainable economy, which has sustainable development as an inherent characteristic.

The research done by Stoica and Stoian (2022, p. 456) supports this perspective as, according to them, "the transition to a circular economy is an opportunity to change the current economy and makes it more sustainable, helping to achieve environmental and climate goals and principles, and protecting existing resources." Furthermore, Skvarciany et al. (2021) found that the circular economy is, indeed, an effective assistance tool for sustainable development and directly impacts a country's sustainability. In addition, Роледерс, Oriekhova, and Zaharieva (2022) concluded that achieving sustainable development objectives is feasible through the transition to a circular economy.

Because the circular economy is an economic system that aims to be a sustainable one, it is assumed that the engagement practices outlined by Verleye et al. (2023) are also applicable for the transition towards a sustainable economy. Therefore, the next section elaborates upon these practices.

### 2.3.3 Engagement practices in a circular and sustainable economy

The **Circular Economy Engagement framework** developed by Verleye et al. (2023), proposes 13 practices that are oriented towards engaging actors in the circular economy, thereby inducing systemic change. These practices are tailored to boosting the motivation, opportunities, and abilities of actors to engage in the circular economy, categorized into six higher-level practices (i.e., signaling, convincing, matching, legitimizing, supporting, and empowering) (Verleye et al., 2023).

Firstly, a focal actor can be motivationally engaged through signaling or convincing (Verleye et al., 2023). Signaling, on the one hand, emphasizes the **environmental/societal, economic, and general benefits** of embracing circular business models (Verleye et al., 2023). This can be done by providing evidence, promoting or clarifying these benefits (Verleye et al., 2023). Convincing, on the other hand, goes one step further as it anticipates possible risks and proves these risks are limited or absent (Verleye et al., 2023). Moreover, specific **financial and pragmatic measures** can be leveraged to convince actors (Verleye et al., 2023).

Secondly, matching and legitimizing are opportunity-related techniques (Verleye et al., 2023). When actors exchange resources with the focal actor, **relational matching** occurs (Verleye et al., 2023). This includes networking, bringing different actors together, and involving focal actors within circular activities (Verleye et al., 2023). When the resource exchange is formalized through strategic alliances or partnerships, this refers to **formal matching** (Verleye et al., 2023). Similar to matching, legitimizing can be accomplished through two distinct approaches (Verleye et al., 2023). While **soft legitimizing** enables the emergence of soft institutions (i.e., shared norms/values or common habits and routines) to facilitate the transition to a circular economy, **hard legitimizing** enforces the transition by, for example, regulations and laws (Verleye et al., 2023).

Thirdly, ability-related practices include both supporting and empowering (Verleye et al., 2023). A first manner to support focal actors is through **financial support** (e.g., subsidies, fundraising). A second supporting practice is providing **infrastructural support**, which entails making infrastructural resources (e.g., technological, digital, physical resources) available (Verleye et al., 2023). In addition, focal actors can be empowered by increasing their **knowledge** and developing their skills and competencies (i.e., **capabilities**) (Verleye et al., 2023).

Verleye et al. (2023) highlight that practices related to motivation, opportunity, and ability are not sufficient on their own, but rather should all be executed together in order to achieve an optimal result (Verleye et al., 2023). In the next section, the Circular Economy Engagement framework as well

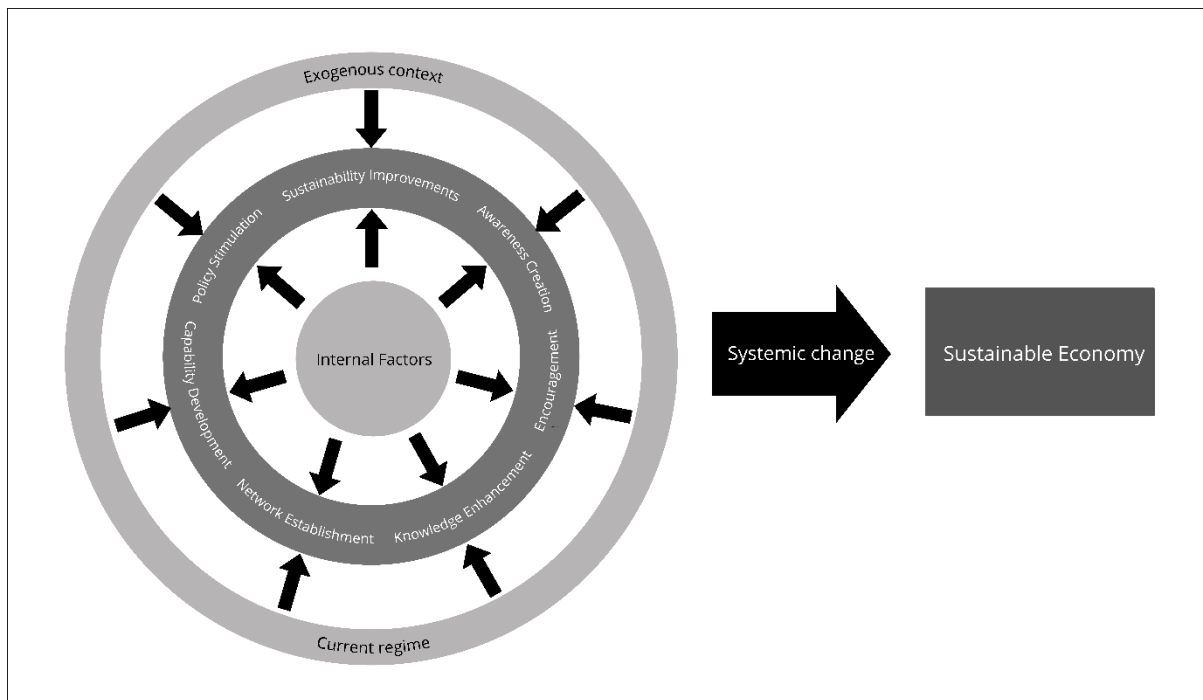
as the insights previously discussed in this literature review, will be combined to develop the Green Deal Performance framework.

## **2.4 Green Deal Performance framework**

To date, the performance of the Flemish Green Deal instrument remains undefined because, to the best of our knowledge, there is no framework specifically designed for analyzing Flemish Green Deals. In addition, the factors explaining this performance have not yet been identified, as to our understanding. Only by pinpointing these elements can well-informed decisions be made to improve the Flemish Green Deal instrument, which is considered highly relevant due to its expected long-term use in Flanders (Departement Kanselarij en Buitenlandse Zaken, n.d.). Furthermore, a framework for analysis will not only be relevant to analyze the Green Deals in Flanders (as part of this research), but could potentially benefit the Walloon region and the Brussels capital region of Belgium as well. In 2019, the first Walloon Green Deal was created on the topic of circular procurement (Circular Wallonia, n.d.). In addition, the Brussels capital region also introduced the Green Deal instrument with the 'Green Deal Low Emission Urban Logistics' in 2023 (Professionals - Leefmilieu Brussel, 2023). The approach taken in these Green Deals is similar to the Flemish variant.

After reviewing the literature on innovating and managing systems for sustainability and its attention for systemic instruments and engagement practices, the authors propose that the Flemish Green Deal is a systemic instrument. Furthermore, because of the fact that Flemish Green Deals intend to make the Flemish economy more sustainable, the researchers propose that this instrument aims to enable the transition to a sustainable economy. Based on these two elements, it is contented that the performance of the Flemish Green Deal instrument should be measured against the systemic change it brings towards a sustainable economy (Figure 2). In what follows, the different components (i.e., Green Deal goals and the factors explaining Green Deal performance) of **the Green Deal Performance framework** will be presented and their link with the reviewed theoretical frameworks will be elaborated on.

Figure 2: The Green Deal Performance framework



### 2.4.1 Green Deal goals

We argue that the Flemish Green Deal instrument’s aim of achieving systemic change towards a sustainable economy boils down to achieving seven underlying objectives, which form the core of the Green Deal Performance framework. These seven Green Deal goals are detailed in Table 2.

Table 2: Definitions of Green Deal goals

Green Deal goal	Definition
Awareness creation	Increasing visibility, raising consciousness, and increasing understanding regarding the significance, relevance, and/or implications of a particular topic or issue.
Capability development	Acquiring new experiences, skills, and/or competencies through experimentation and hands-on application of information.
Encouragement	Fostering and maintaining enthusiasm, commitment, and positive attitudes and behaviors, and inspiring actors towards embracing new initiatives, seizing opportunities, and taking action.
Knowledge enhancement	Enriching and expanding the depth of knowledge on a certain topic, increasing the overall amount of available knowledge (e.g., documents, tools) and/or sharing this knowledge.
Network establishment	Forming connections, relationships, or collaborations with individuals or groups.
Policy stimulation	Stimulating policy development, improvement, or change (e.g., by collectively formulating and communicating policy recommendations).



Sustainability improvement	Enhancing products, services, processes, or practices in terms of sustainability.
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By combining the Systemic Instrument framework by Wieczorek and Hekkert (2012) and the Circular Economy Engagement framework by Verleye et al. (2023), the Green Deal Performance framework is able to integrate both a systemic and an engagement perspective. In what follows, the relevance of both academic frameworks in relation to the Flemish Green Deal context is discussed, as well as the procedure for combining them.

### Systemic Instrument framework

The framework on systemic instruments highlights eight goals that systemic instruments aim to achieve in order to address the problems that hinder the advancement of innovation systems (Wieczorek & Hekkert, 2012). Therefore, this framework appears highly usable as a starting point for pinpointing goals relevant to Flemish Green Deals. As mentioned before, it is argued that a Flemish Green Deal can be categorized as a systemic instrument. This conclusion was reached by comparing the definition of systemic instruments provided by Wieczorek and Hekkert (2012) with the description of the foundational characteristics of the Flemish Green Deals instrument.

A first foundational characteristic of a Flemish Green Deal is its clear objective for increased sustainability of the economy (Departement Omgeving, n.d.; “Green Deal gids,” 2021). The fact that the Green Deal instrument focuses on this broad objective (i.e., greening the economy) highlights the instrument’s aim to drive systemic change rather than isolated improvements within individual entities. Therefore, the Green Deal is considered a tool that opts to improve the functioning of entire systems, which aligns with the definition of systemic instruments by Wieczorek and Hekkert (2012). Furthermore, the fact that the Flemish Green Deal instrument aims to tackle complex problems, which require a large number of interdependent stakeholders (Bieseman & Kamas, 2019), also highlights its systemic features.

The collaborative nature and its aim to bring various actors (e.g., companies, research institutions, governments) together is a second foundational characteristic of the Flemish Green Deal instrument (“Green Deal gids,” 2021). It aspires to unite parties who would otherwise meet only rarely (Departement Omgeving, n.d.) and thus, to stimulate networks of interdependent actors to act in a more synergistic way. The fact that the Flemish Green Deal instrument aims to foster opportunities and conditions for system formation supports its categorization as a systemic instrument as defined by Wieczorek and Hekkert (2012).

### Circular Economy Engagement framework

As mentioned in section 2.3.3, the Circular Economy Engagement framework developed by Verleye et al. (2023) aims to provide insight in how to boost actors' motivation, opportunities, and abilities to engage in the transition towards a circular and sustainable economy.

By providing six practices and 13 sub-practices for boosting actor engagement, this framework can assist various actors in identifying the essential practices required to increase circular or sustainable economy engagement (Verleye et al., 2023), thus facilitating the sustainability transition. As Flemish Green Deals aim to facilitate this sustainability transition ("Green Deal gids," 2021), this framework is considered highly relevant as a starting point for determining the Green Deal goals.

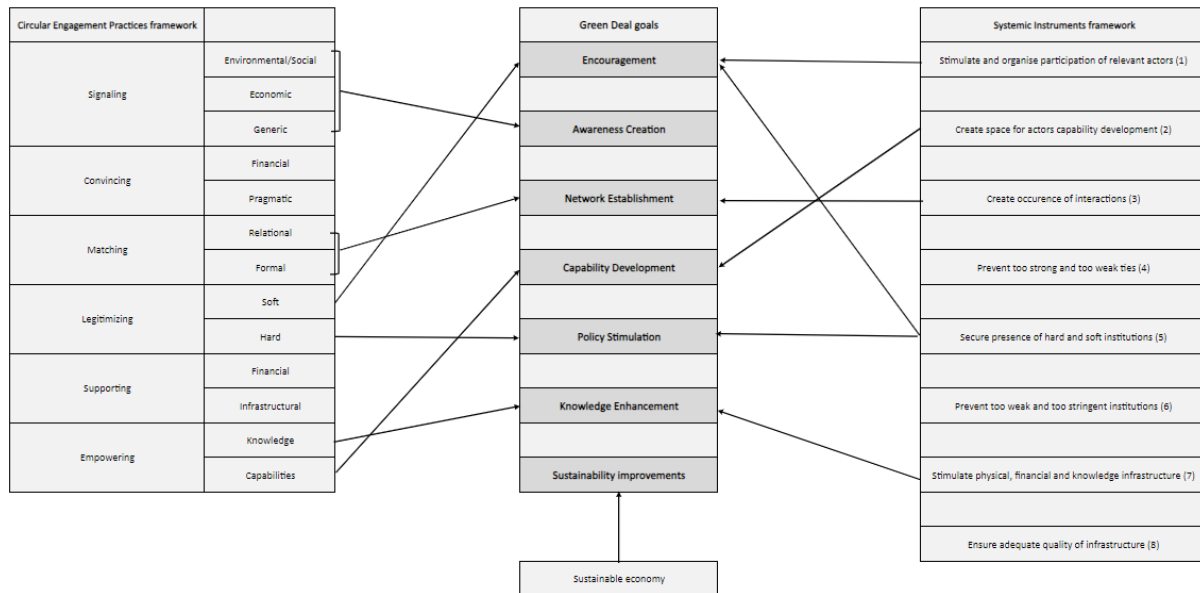
### Integration of frameworks

The seven Green Deal goals of the Green Deal Performance framework were determined by integrating these two frameworks in combination with the given conceptualization of the Flemish Green Deal instrument by the Flemish government. Figure 3 shows how these goals were obtained. As this figure indicates, various overlaps could be noticed between elements from both frameworks, indicating their relevance. These overlapping elements were therefore combined in one single Green Deal goal (i.e., encouragement, network establishment, capability development, knowledge enhancement, and policy stimulation). The awareness creation goal is derived solely from the framework on actor engagement and was considered essential because increasing visibility for the sustainability efforts of society and policy is one of the key intentions of the instrument according to the Flemish government ("Green Deal gids," 2021). Furthermore, in order to emphasize the Green Deal instrument's aim to enable a transition to a sustainable economy ("Green Deal gids," 2021) one additional goal, sustainability improvement, was included in the framework as well. This also aligns with the aim of the Circular Economy Engagement framework to achieve a circular and sustainable economy. By incorporating this objective as just one of the seven Green Deal goals, it is highlighted that the objectives of Flemish Green Deals extend beyond immediate sustainability improvements ("Green Deal gids," 2021).

Some elements of both frameworks (i.e., 'Pragmatic/financial convincing', 'Prevent too strong and too weak ties', 'Prevent too weak and too stringent institutions', 'Ensure adequate quality of infrastructure') did not show any overlap with its counterpart and were not deemed relevant either based on the understanding of the Flemish Green Deal instrument. These elements were, therefore, not incorporated in the Green Deal goals of the final developed framework. Furthermore, financial and infrastructural/physical support were considered to be potential explanatory factors of the Green Deal instrument, rather than goals in themselves, as this support occurs *in function of* Green Deal

goals. For financial supporting, this is also backed by the fact that a Green Deal is no subsidy mechanism (“Green Deal gids,” 2021).

Figure 3: Integration of frameworks



## 2.4.2 Factors explaining Green Deal performance

When evaluating the performance of the Flemish Green Deals, it is not only necessary to assess whether the Green Deal goals are achieved but also to explore which factors hold explanatory power for achieving these goals. These factors can be related to the practical measures integrated in the Green Deal (i.e., internal factors) or to the context in which the Green Deal takes place (i.e., external factors).

**Internal factors** refer to all activities, initiatives, and resources directly controlled or managed by the Green Deal stakeholders themselves. These internal factors encompass the various strategies and efforts implemented within the context of the Green Deal. **External factors** refer to elements influencing the performance of the Green Deal that cannot be directly controlled or managed by the Green Deal stakeholders, namely the ‘Current regime’ and the ‘Exogenous context’. This distinction is made based on **the multi-level perspective model** (Geels & Schot, 2007) as described in section 2.3.1 of this literature review. This model indicates that both the socio-technical regime and the socio-technical landscape influence the niche (Geels & Schot, 2007). According to the MLP model, a niche is a space that can serve as an incubation room for developing new innovations, experimenting, and learning with a small network of committed actors (Geels & Schot, 2007). Based on the conceptualization of the Flemish Green Deal instrument as provided in section 2.1.2 of the literature

review, the Green Deal environment strongly overlaps with this definition of niches, supporting the incorporation of these two external factors in the Green Deal Performance framework.

### **3 METHODOLOGY**

After developing the Green Deal Performance framework in the previous section, the methodology section outlines the research aim and approach. In addition, this section provides a detailed description of the data collection, coding, and analysis.

#### **3.1 Research aim and approach**

This master's dissertation aims to investigate the Flemish Green Deal instrument, which is considered to be a systemic instrument of the Flemish government oriented towards a sustainable economy. In addition to the development of the Green Deal Performance framework, this framework is implemented for three main reasons:

- (1) To evaluate what goals are achieved by the Flemish Green Deals.
- (2) To investigate what internal and external factors shape the achievement of these goals.
- (3) To pinpoint recommendations with the intention of improving the Flemish Green Deal instrument.

To achieve these research objectives, we opt for a multiple **case study approach**. This approach is appropriate, as Flemish Green Deals can be considered as complex phenomena that requires in-depth analysis and because they consist of a contemporary set of events over which a researcher has little or no control (Yin, 2018).

When defining the scope of our research, six Flemish Green Deals were already considered finished according to the website of the Flemish government (Departement Omgeving, n.d.). At that time, the Green Deal Brewers was not among them. For this reason, it was not included in this research.

It was decided to focus on the finished Green Deals for two reasons. Firstly, by assessing the finished Green Deals, rather than the Green Deals in execution or preparation, it is guaranteed to have the most complete dataset available for evaluating their performance. This allows for the most thorough and trustworthy analysis of the Flemish Green Deal instrument. Secondly, the organizers of finalized Green Deals have had the opportunity to take a step back from their Green Deal and reflect on its impact, which might be harder to assess when it is still in full execution or even in preparation.

In the table below, the six Flemish Green Deals that will be evaluated, are listed.

Table 3: Selected cases

Case	Green Deal	Duration <sup>2</sup>	Logo <sup>3</sup>
1	Shared Mobility	March 2017- June 2021	
2	Circular Procurement	June 2017- November 2019	
3	Companies and Biodiversity	September 2018 - September 2021	
4	Domestic Wood Heating	October 2018- October 2022	
5	Circular Construction	February 2019- February 2023	
6	Sustainable Urban Logistics	April 2019 - December 2023	

### 3.2 Data collection

Firstly, a literature review through **desktop research** using Web of Science was executed in order to get an in-depth understanding of the existing literature on sustainability transitions, system innovation, systemic instruments, and actor engagement. Furthermore, an initial understanding of the Flemish Green Deal instrument had been acquired by researching the basic conceptualization of this instrument. This led towards the development of the Green Deal Performance framework.

In order to further increase our insight into what a Green Deal can entail, the authors also attended three **Flemish Green Deal events**, namely two events of the Flemish Green Deal Renting and Sharing (i.e., a workshop and the first Sharing Summit) and a learning network event organized by the Green Deal Counter, during which organizers from various Green Deals were brought together. These events were additional help in understanding the Flemish Green Deal concept.

<sup>2</sup> The source for the duration of each Green Deal can be found next to 'Website 1' in appendix B.

<sup>3</sup> Source: Departement Omgeving. (n.d.). *Alle Green Deals*. Retrieved February 15, 2024, from <https://omgeving.vlaanderen.be/nl/alle-green-deals>

In the second stage, three types of data were gathered, namely secondary data on the Flemish Green Deals cases, direct statements from organizers through in-depth interviews, and surveys. An overview of the data is given in Table 4.

Firstly, the **analysis of secondary data** was done by consulting multiple sources. Most of the relevant information was found on the official Green Deal website of the Flemish government as well as on the Green Deal-specific websites. In addition to the documents found on these online platforms, various documents were personally received from organizers. A list of all consulted secondary data per case can be found in appendix B.

Afterwards, **16 in-depth interviews** were conducted as an efficient way to gather rich data. The interviews took place with Green Deal organizers. Each Flemish Green Deal has multiple leading organizations that carry the Green Deal. They are the driving force behind the initiatives taken within the Green Deal. Each of these leading organizations has at least one person representing the organization. From now on, when talking about a 'Green Deal organizer', this refers to the person representing a leading organization within a certain Flemish Green Deal. Multiple organizers per Green Deal case were interviewed to collect different views regarding the research questions. Every interview was conducted by two interviewers in order to probe deeper. The questions of the semi-structured interviews were developed based on the secondary data already acquired. Furthermore, the interviews contained both open- and closed-ended questions. This structure was chosen to leave room for unexpected topics (Adams & George, 2015). Each interview was divided into four main sections: internal factors, Green Deal performance, external factors, and improvements. The interview guide can be found in appendix A.1. The interviews lasted approximately one hour each and were conducted in Dutch.

It was opted to interview organizers, rather than participants, for three main reasons. First of all, as the organizers oversee the coordination of the Green Deal, it was assumed that they have overarching insight on the overall functioning of the Green Deal and the thought process behind it. Secondly, because the organizers were responsible for the communication with and guidance of Green Deal participants, it was reasonable to assume that they can analyze the performance of the instrument in a nuanced way (i.e., by taking multiple viewpoints into consideration). Individual participants, on the other hand, might provide a narrower perspective on the instrument's functioning and performance. Thirdly, signs were picked up that the willingness of participants to engage in this research could potentially be low, given the considerable amount of time that has already passed since some Green Deals were completed.

Prior to the in-depth interview, interviewees completed a **brief online survey**. This was intended to gain an initial feel of the interviewee's evaluation of their Green Deal as well as to, later on, assess the reliability of the interview and survey data in terms of consistency. Finally, the survey provided the organizers with the opportunity to make some comments or points of emphasis that could be discussed during the in-depth interview. During several in-depth interviews, these comments were incorporated in the interview, which allowed for more tailored follow-up questions and an overall interview of higher quality. The template of the survey can be consulted in appendix A.2.

*Table 4: Data overview*

Case	Green Deal	Data		
		# Interviews	# Survey responses	Secondary data
1	Shared Mobility	3	3	- Documents: 7 - Website government: 1 - Website specific: 1
2	Circular Procurement	2	2	- Documents: 8 - Website government: 1 - Website specific: 1
3	Companies and Biodiversity	2	2	- Documents: 5 - Website government: 1 - Website specific: /
4	Domestic Wood Heating	2 <sup>4</sup>	1	- Documents: 4 - Website government: 1 - Website specific: 1
5	Circular Construction	3	1	- Documents: 3 - Website government: 1 - Website specific: 1
6	Sustainable Urban Logistics	4	3	- Documents: 6 - Website government: 1 - Website specific: /

### 3.3 Data coding & analysis

Prior to data coding and analysis, all interviews were transcribed. Afterwards, the secondary data, as well as the semi-structured interviews, and the online survey were coded and analyzed by making use of the qualitative data analysis software package NVivo 14 Windows. Each Flemish Green Deal was classified as an individual case.

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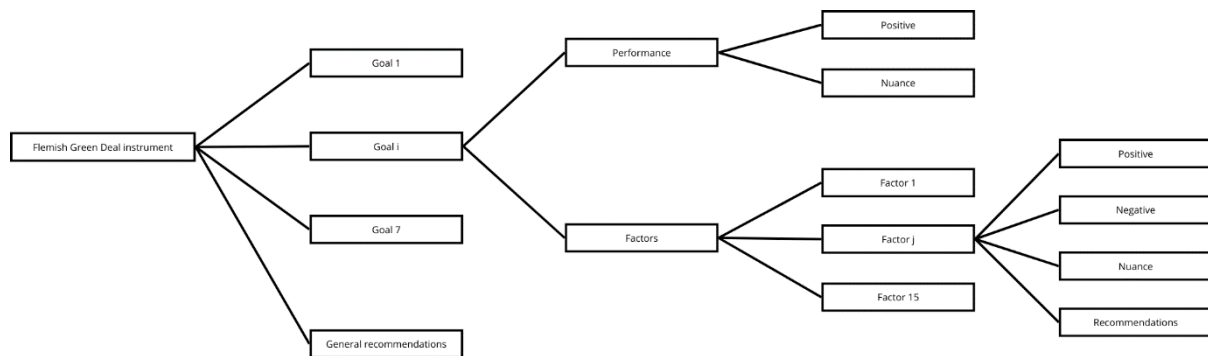
<sup>4</sup> One interview was conducted with two interviewees simultaneously.



In alignment with the overall structure of this research, the code structure in NVIVO makes, for each Green Deal goal, the division between data related to the achievement of that goal (i.e., performance) and the factors explaining that performance (i.e., factors). For the coding of the internal explanatory factors, the grounded theory was applied, as these factors were not predetermined based on a theoretical framework, but rather became apparent while reviewing the data (Goldkuhl & Cronholm, 2010). The external factors, on the other hand, were considered fixed before coding. Regarding the performance of Green Deals, only positive contributions and some nuancing statements were detected and, therefore, coded. For the explanatory factors, however, both positive and negative relations with Green Deal goals were found and encapsulated in the code structure. In addition, nuancing statements and factor-specific recommendations were incorporated. Finally, general recommendations on the Flemish Green Deal instrument were coded as well.

The code structure can be found in Figure 4. In order to improve the readability of this structure, visualization is limited to one of the seven goals (i.e., 'Goal i') and to one of the explanatory factors (i.e., 'Factor j'). However, the same structure applies to the other goals and factors.

Figure 4: Code structure



## 4 FINDINGS

In what follows, the results from all data gathered are discussed. In section 4.1, the findings regarding the performance of the analyzed Flemish Green Deals are provided. This first part also contains the findings on the factors (i.e., internal and external) explaining this performance. Section 4.2 provides factor-specific as well as general recommendations.

For each of the seven Green Deal goals, a complete overview of the raw data related to the performance and relevant explanatory factors can be found in appendices C to I, which serves as elaborate proof for the Findings section. In these tables, positive relations are indicated with a '+' symbol (green background) and negative relations with a '-' symbol (red background). In order to provide the reader with a nuanced and comprehensive overview of all relevant data, nuancing comments and remarks are highlighted as well, if present. These nuances are indicated by an 'N' symbol (yellow background). In addition, the recommendations for the internal factors can be found in appendix J and the general recommendations in appendix K. All quotes presented in appendix have been translated from Dutch, except those from the whitepaper of the Green Deal Circular Procurement, which was originally written in English.

With the aim of maximizing readability, a small selection of raw data is presented in tables within the Findings section itself, serving as easily accessible proof that the results are sufficiently substantiated.

### 4.1 Green Deal performance and explanatory factors

#### Overview Green Deal performance

Table 5 shows an overview of the six analyzed Flemish Green Deals in relation to the seven potential goals of the Flemish Green Deal instrument. A '+' is placed in a cell related to a certain Flemish Green Deal and a certain goal, if that Flemish Green Deal is considered to have achieved that specific goal. In order to determine whether a Flemish Green Deal contributes to a certain goal, not the number (i.e., quantity) of relevant data elements, but rather their quality was decisive.

Table 5: Findings performance Flemish Green Deal instrument

GOALS	Shared Mobility	Circular Procurement	Companies and Biodiversity	Domestic Wood Heating	Circular Construction	Sustainable Urban Logistics
Awareness creation	+	+	+		+	+
Capability development	+	+			+	+
Encouragement	+	+	+		+	+
Knowledge enhancement	+	+	+	+	+	+
Network establishment	+	+	+	+	+	+
Policy stimulation	+			+	+	+
Sustainability improvement	+	+	+	+	+	+

A '+' is placed when a goal is achieved by a Green Deal.

#### Overview explanatory factors

Based on secondary data, the in-depth interviews and the online survey, 13 internal factors and two external factors were distilled. These factors were pinpointed because of the explicit mention of them contributing to a certain Green Deal goal, making them relevant for at least one Green Deal case. Table 6 provides an overview of all these factors, accompanied by a definition, in order to avoid any confusion on their meaning. As can be seen in the table, 'action of participant' includes, for example, communication campaigns and pilot projects, which could potentially be seen as separate internal factors. However, since no further subdivision could be made based on the acquired data, this is bundled into one internal factor 'action of participant'. The same reasoning can be applied to 'plenary event'.

Table 6: Definitions of factors

Internal Factor	Definition
Action of participant	Initiatives of Green Deal participants, which are deliberate, result-oriented endeavors (e.g., communication campaigns, research studies, or pilot projects). This factor only includes initiatives that are not covered by other internal factors.
Award	A competition where Green Deal participants are invited to submit a project/initiative they have undertaken with the aim to receive recognition.
LinkedIn group	A LinkedIn community of Green Deal participants and organizers, which might also be open to the general public.
Newsletter	A periodic publication distributed (digitally or on paper) to Green Deal participants and possibly to the general public, with updates, news, analyses, and insights related to the Green Deal.
Personal guidance	The provision of individualized support, advice, and/or direction to participants (e.g., through calls, emails or in-person meetings).
Plenary event	A physical gathering to which all Green Deal participants (and possibly non-participants) are invited. This could be lectures, network lunches, large-scale workshops or trainings, opening and closing ceremonies, and so on.
Research center	An entity specifically focused on conducting research and innovation activities related to topic of the Green Deal.
Site visit	Organized tours or visits in small groups to physical locations (e.g., facilities, projects) relevant to the participants of the Green Deal.
Subsidy	Financial resources provided by governments or other entities to Green Deal participants and/or organizers.
Webinar	Online seminars (e.g., presentations, discussions, interactive sessions)
Website government	The website of 'Departement Omgeving', a department of the Flemish government. This website provides an overview of all the existing Green Deals (i.e., finished, running, and in preparation).
Website specific	The website that was created for one specific Green Deal, in addition to the general website of 'Departement Omgeving'.
Workgroup	A gathering of a small number of Green Deal participants, possibly with external stakeholders (e.g., external expert).
External Factor	Definition
Current regime	The incumbent collection of rules and institutions. Examples include cognitive habits, shared beliefs and values, lifestyles and user practices, institutional arrangements, and regulations (Geels, 2004, 2011).
Exogenous context	The broader contextual developments (i.e., landscape factors). These include both structural trends (e.g., demographics, geopolitics, and spatial structures) and exogenous shocks (e.g., wars, economic crisis, and pandemics) (Geels, 2006).

Table 7 shows an overview of the explanatory factors in relation to the seven Green Deal goals, for each of the researched Green Deals. For practical reasons, the names of the Green Deals are replaced by their case number, which can be found in Table 3. To improve readability, the cell indicating the case number is shaded grey to indicate that the goal has been achieved for that Green Deal case. A '+' symbol is placed in a cell related to a certain factor, goal, and Green Deal if, for that Green Deal, this factor has positively contributed to achieving the goal. In addition, a '-' symbol indicates a negative effect while a '+-' symbol shows that a given factor has both a negative and a positive impact on a Green Deal goal. If no clear relation was found in the data between an explanatory factor, goal, and Green Deal, that cell in Table 7 remains empty. As the table indicates, the internal factors only show to have contributed to the goals in a positive manner or not at all. However, for the external factors, there are positive as well as negative and mixed effects.

Table 7: Findings factors Flemish Green Deal instrument

GOALS	Awareness creation						Capability development						Encouragement						Knowledge enhancement						Network establishment						Policy stimulation						Sustainability improvement					
	Case	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5
Action of participant	+				+		+	+			+	+	+	+				+	+		+	+	+	+							+			+		+	+	+	+		+	+
Award													+	+	+																											
LinkedIn group																				+			+	+		+			+													
Newsletter													+	+			+		+	+	+		+	+																		
Personal guidance																		+						+																		
Plenary event		+	+			+							+	+	+		+	+	+	+	+		+	+	+	+	+		+	+												
Research center																							+							+												
Site visit															+		+				+		+				+		+													
Subsidy																	+						+																			
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Website government																					+																					
Website specific																			+	+									+													
Workgroup								+					+	+				+	+		+	+		+	+		+	+	+			+										
Current regime																	+	-												+												-
Exogenous context	-		+		+								+		-		+-	-	-				+		-				-	-							+-					+

A '+' is placed in a cell when a factor positively contributes to achieving a goal in a certain Flemish Green Deal. In addition, a '-' indicates a negative effect, while a '+-' shows that a factor has both a negative and a positive influence on a Green Deal goal in a certain Flemish Green Deal.

Now, the findings on the performance of each of the seven Green Deal goals, together with their explanatory factors will be outlined in more detail. If no quotes on a certain Green Deal are incorporated in a table, this means that no relevant data was found.

**4.1.1 Awareness creation**

Performance awareness creation

With the exception of the Green Deal Domestic Wood Heating, every Green Deal has been able to increase or create awareness about the importance of the sustainability topic at hand. Interviewees and documents mentioned the creation of awareness explicitly or indicated that the theme was put on the map and that its visibility was increased. These results correspond with the online surveys conducted before the interviews.

Still, it was mentioned that achieving this goal was not always easy and that a lot of work remains to be done in order to raise awareness of the general public. Although Domestic Wood Heating tried enhancing awareness, the impact has never been measured. Therefore, this Green Deal was considered not to have reached the first Green Deal goal.

*Table 8: Quotes performance awareness creation*

Case	Quote
Shared Mobility	Interviewee 2: "I think the Green Deal has sparked a kind of acceleration in shared mobility and has raised awareness."
Circular Procurement	Interviewee 1: "I think, in totality, it [the Green Deal] did contribute a lot to the awareness about and visibility of the circular economy. ... I think this [spotlight] might have been the most important contribution, ..."
Companies and Biodiversity	Interviewee 1: "A lot of awareness was created."
Domestic Wood Heating	Interviewee 1: "For the consumer component, a lot has been done around awareness creation, nudging. However, the effect of this has never been measured."
Circular Construction	End Report: "The biggest achievement of the Green Deal Circular Construction is the awareness process that has been set in motion."
Sustainable Urban Logistics	Interviewee 1: "I do think we really succeeded in putting the theme of urban logistics on the map."

Factors awareness creation

The **actions of the participants** of the Green Deal Shared Mobility and Circular Construction helped in raising awareness of the general public. Actions, such as communication campaigns, played an important part in promoting the theme.

Secondly, **plenary events** organized in Green Deals also positively impacted awareness creation by emphasizing the benefits (e.g., additional turnover) and importance of the Green Deal themes.

Finally, the **exogenous context** had both a negative and positive impact on various Green Deals in terms of awareness creation. COVID-19 had a negative impact by slowing down the social process regarding shared mobility. On the other hand, the influence of the climate movement and the scarcity of materials, partly as a result of the blocked Suez Canal, aided in making participants realize the importance of biodiversity and circular construction, respectively.

*Table 9: Quotes factors awareness creation*

<b>Factor</b>	<b>Case</b>	<b>Quote</b>
Action of participant	Shared Mobility	Interviewee 2: "A lot of the [participants'] actions focused on communication and raising awareness among the general public. That was an important element."
	Circular Construction	Interviewee 1: "I think we had greater visibility with our Green Deal through the actions."
Plenary event	Circular Procurement	Interviewee 1: "By doing so many events and networking around sustainable procurement, you bring that subject into the spotlight enormously."
	Companies and Biodiversity	Intermediate Report: "This event provided an overview of some of the profitable aspects of biodiversity in business parks. The profitable aspects were explained from the point of view of an environmental consultant, a CSR-specialist and someone responsible for biodiversity from companies themselves."
	Sustainable Urban Logistics	Intermediate Report 2020: "The launch of this Green Deal kicked off with a brief welcome from the King Baudouin Foundation, ... Afterwards, attendees were given a brief explanation on the importance of sustainable urban logistics."
Exogenous context	Shared Mobility	Interviewee 3: "I do believe that, with the Green Deal, we did accelerate the social process that was going on around shared mobility, despite COVID. Because if it were not for COVID, we would have been even further ahead by now."
	Companies and Biodiversity	Interviewee 1: "The Green Deal also happened when the climate movement got going and so there was more attention to biodiversity in general."
	Circular Construction	Interviewee 1: "It was often said that circular construction is expensive but then shortages arose in the market. This made people think that the linear story will not last forever and there is a certain value in the circular story. ... Also, there was the tanker that blocked the Suez Canal so that products were no longer available to us."



### 4.1.2 Capability development

#### Performance capability development

Four Green Deals have achieved capability development, namely Shared Mobility, Circular Procurement, Circular Construction, and Sustainable Urban Logistics. A lot of experience was gained within these Green Deals by testing out things in practice. Participants learned from this experimentation, both in terms of successes and failures. For example, the Green Deal Circular Procurement was described as one big experiment, where projects could be executed in a safe environment. The online survey answers are in line with these results from the interviews and secondary data. Still, there was a need for more experimentation with certain topics (e.g., circular contract forms, circular materials).

*Table 10: Quotes performance capability development*

Case	Quote
Shared Mobility	Intermediate Report 2019: “Through their commitment, the signatories realize what works and what does not, and this can only benefit the roll-out of shared mobility in Flanders.”
Circular Procurement	Process Report: “Actually, the Green Deal Circular Procurement was one big experiment; a lab where we could conduct pilots in the best possible conditions in a safe environment.”
Companies and Biodiversity	Survey Respondent 1: 0/10 launching experiments/projects
Domestic Wood Heating	Survey Respondent 3: 2/10 launching experiments/projects
Circular Construction	Interviewee 3: “A lot of experience has been built up [during the Green Deal].”
Sustainable Urban Logistics	Inspiration Guide: “We learnt as much from the successes as from the setbacks. ... It goes without saying that we need to keep learning from the tests that we do.”

#### Factors capability development

The **participants’ actions** facilitated capability development by enabling them to experiment and, in this way, learn what works and what does not.

Secondly, **workgroups** also had a positive effect on capability development. During the workgroup gatherings, members of Green Deals could implement and apply what they had learned.

Table 11: Quotes factors capability development

Factor	Case	Quote
Action of participant	Shared Mobility	Intermediate Report 2019: “The initial actions are also sometimes fine-tuned: commitments that do not work are adjusted to actions that can achieve impact. In this way, the participants also create insight into the theme of shared mobility.”
	Circular Procurement	End Report: “With more than 100 pilot projects, the Green Deal Circular Procurement was a great living lab for circular procurement.”
	Sustainable Urban Logistics	Interviewer: “Were the projects successful according to you?” Interviewee 2: “I did not follow in more detail to what extent people achieved the intended goals. But certainly, to some extent, they were successful.”
	Circular Construction	Interviewee 1: “If you [participant] had a project, you started and experimented with it.”
Workgroup	Circular Procurement	End Report: “The theory and inspiration of the plenary sessions were translated into practice in these teams [workgroups] and applied to concrete procurement projects and challenges.”

**4.1.3 Encouragement**

Performance encouragement

Except for Domestic Wood Heating, every Green Deal succeeded in encouraging its participants. These Green Deals created buzz, enthused, and inspired their participants. As a result, their commitment to take action within the Green Deal increased. The Green Deals managed to set things in motion and keep the initiative vibrant. Furthermore, several Green Deals stated that participants even remained motivated to take action after these Green Deals ended. Nevertheless, multiple Green Deals emphasized that maintaining a high level of engagement was not easy, as pushing and motivating a large group of participants required constant effort from organizers. For example, Shared Mobility stated that enthusiasm was high during the first two years but diminished afterwards. For Domestic Wood Heating, it was mentioned organizers continuously tried to re-engage participants, however, without clear success. Therefore, this Green Deal was not regarded as having achieved encouragement.

Table 12: Quotes performance encouragement

Case	Quote
Shared Mobility	End Report: "The enthusiasm of signatories and the buzz created through a Green Deal make it a successful tool."
Circular Procurement	Intermediate Report: "...the Green Deal Circular Procurement did ensure that they [participants] ... were inspired."
Companies and Biodiversity	Interviewee 1: "After all, we managed to keep enthusiasm high for three years."
Domestic Wood Heating	Interviewee 3: "I have tried for five or six years to always re-engage these people and try to motivate [them] again, ..."
Circular Construction	Interviewee 2: "Actually, the Green Deal was full, but organizations kept wanting to join. ... It [the Green Deal] creates a kind of enthusiasm."
Sustainable Urban Logistics	Intermediate report 2020: "During that first year, we achieved our main objective of boosting the steps taken by companies, local authorities, and other organizations towards sustainable urban logistics in Flanders."

### Factors encouragement

First of all, the **actions executed by participants** had a positive influence on encouragement by motivating parties outside the Green Deal, such as end consumers and suppliers, to change their behavior.

Organizing an **award** competition was a second relevant factor that increased enthusiasm. Because of award competitions, participants became increasingly motivated over time to take action that might allow them to win this award. The game and competitive aspect of this internal factor boosted participants' motivation even further.

A third positively influencing factor for encouragement was the use of **newsletters**. The newsletters had the intention of inspiring and enthusing members (e.g., by showing good practices) and keeping the Green Deal lively by writing about upcoming initiatives (e.g., plenary events, workgroups) planned within the Green Deal. According to multiple interviewees, these newsletters achieved their aim.

For the Green Deal Sustainable Urban Logistics, **personal guidance** had a positive impact on keeping engagement high. This was done by personally contacting individual participants, taking the time to discuss their progress and providing assistance where necessary.

All the Green Deals that were able to create encouragement agreed that **plenary events** contributed to achieving this goal. Not only did these events inspire participants, but they also created buzz,

excitement, and kept the Green Deals vibrant. Still, for Shared Mobility, it became clear that the attendance at the plenary events declined over time.

Sixthly, **site visits** helped to boost the inspiration and imagination of Green Deals participants. Moreover, it was recommended to include more of these visits. However, organizing site visits for large groups presented practical challenges, particularly in transporting all participants to the location in question.

A positive link could also be found between **subsidies** and encouragement because these financial resources increased the effort participants were willing to put into their projects. Furthermore, this funding brought about increased responsibilities regarding reporting and sharing results.

Shared Mobility tried to encourage its participants through its specific Green Deal website but was unable to do so in reality.

**Workgroups** were an opportunity to remind participants of their commitment and, therefore, contributed to the encouragement goal. Moreover, through the workgroups, participants inspired each other to take action on the Green Deal's topic. However, maintaining the participants' motivation to consistently attend the workgroups, was challenging. One Green Deal mentioned this stemmed from the lack of concreteness within the workgroups and their non-committal nature.

The **current regime** had a positive influence on encouragement in the Green Deal Circular Construction as the mandatory compliance with regulations (e.g., regulation on recycled granulates) encouraged organizations to participate in the Green Deal. Furthermore, the lack of certain policy frameworks caused potential participants of Sustainable Urban Logistics to adopt a wait-and-see attitude, negatively impacting their motivation to take action.

Lastly, the **exogenous context** had both positive and negative influences on the Green Deals. The influence of the COVID pandemic was mixed. On the one hand, it was easier for some participants to stay involved in a Green Deal because of the switch to online operations. Furthermore, for the Green Deal Circular Construction, the supply chain problems (e.g., resource shortages) caused by the pandemic made even more organizations willing to be part of this Green Deal's circular mission. On the other hand, for multiple Green Deals, the negative influence of COVID on the financial situation of participating organizations caused them to view their involvement in a Green Deal as less of a priority. For Circular Construction, an analysis similar to the one regarding COVID can be made for the energy

crisis. This crisis was an opportunity to take action on the Green Deal’s topic but deprioritized organizations’ involvement in the Green Deal at the same time.

Table 13: Quotes factors encouragement

Factor	Case	Quote
Action of participant	Shared Mobility	Interviewee 2: "... it [the Green Deal] was really about creating buzz. I think that is a big virtue of all those concrete actions."
	Circular Procurement	End Report: "The more than 100 pilot circular procurement projects have undoubtedly triggered providers and spurred the market for circular products and services."
	Sustainable Urban Logistics	Intermediate Report 2020: "We see that the self-selected actions in this Green Deal focus on: - [Stimulating] Conscious behavior of consumers and drivers ..."
Award	Shared Mobility	Interviewee 2: "So, I think an award can help create enthusiasm, if it is structural."
	Circular Procurement	Content Report: "Including circularity in award criteria encourages the market."
	Companies and Biodiversity	Interviewee 1: "The game element and the competition worked to create enthusiasm."
Newsletter	Shared Mobility	Interviewee 2: "We tried each time to put good practices in the newsletter to inspire others: to show to other participants 'Look, this is what you can do to put shared mobility in the picture, to do concrete actions. ...'" Interviewer: "Do you feel that the newsletter achieved its goals?" Interviewee 2: "If I remember correctly, I think that was okay..."
	Circular Procurement	Interviewee 1: "...: [the purpose of the newsletter was] keeping the thing [Green Deal] alive, ..." Interviewer: "And was that successful?" Interviewee 1: "Yes, it certainly succeeded."
	Circular Construction	Interviewee 3: "That [enthusiasm] also depend on communication: the newsletters were always relevant to pick up on a number of things."
Personal guidance	Sustainable Urban Logistics	Interviewer: "How did you keep the engagement high?" Interviewee 3: "The follow-up." Interviewer: "How did that follow-up happen?" Interviewee 3: "..., we write them an email and ask them where they are and how we can help. And through a link, they could pick a time and then we had an online meeting."
Plenary event	Shared Mobility	End Report: "Shared Mobility Rocks immediately represented an opportunity to ..., create buzz around the Green Deal again..."
	Circular Procurement	End Report: "Plenary sessions are great for informing and inspiring a large group of participants."

	Companies and Biodiversity	Interview VPO 2: "The signing moment was very important! ... Such events will still be needed to keep the Green Deal alive and in focus."
	Circular Construction	Interviewee 3: "I think the action days absolutely succeeded in their goal of ..., getting people excited, ..."
	Sustainable Urban Logistics	Interviewee 2: "Partly, it [plenary events] definitely succeeded because they can really inspire and bring people together."
Site visit	Companies and Biodiversity	Interviewee 2: "These [site visits] do have a very inspiring effect."
	Circular Construction	Interviewee 1: "Showing business sites speaks to the imaginations."
Subsidy	Circular Construction	Interviewer: "So, do you see a clear link between the funding and the commitment or effort put in by the participant?" Interviewee 1: "Definitely."
Website specific	Shared Mobility	Interviewee 2: "At first, we did think this [the specific website] would create some kind of buzz but that turned out not to be the case after all."
Workgroup	Shared Mobility	Interviewee 1: "It [the workgroup] was also a moment to, once again, remind people of their own commitments."
	Circular Procurement	Whitepaper: "Communities of practice give visibility to the engagement of participants and can help to convince others to take the leap forward."
Current regime	Circular Construction	Interviewee 1: "For example, because of the unit regulations for recycled granulates, a number of people decided to get involved."
	Sustainable Urban Logistics	Interviewee 1: "I did not manage to engage additional cities for this [Green Deal], because I also think those cities thought 'Let us wait and see.', because there was no Flemish legislative framework."
Exogenous context	Shared Mobility	End Report: "The switch to online operation as a result of COVID-19, therefore, made it easier for several signatories to remain involved in the Green Deal."
	Companies and Biodiversity	Interviewee 1: "Less good about the timing was COVID, because companies were shut down and there was panic in all areas. Then, there was less focus on biodiversity."
	Circular Construction	Interviewee 1: "Also, for example, the energy crisis. Its effect was twofold: on the one hand, there was the feeling 'Now is not the right time to start innovating' and on the other hand, it was also an opportunity [to take action]."
	Sustainable Urban Logistics	Interviewee 1: "Yes, the fact that the [environmental] situation is only getting worse and worse [stimulated participation of organizations] ..."

#### 4.1.4 Knowledge enhancement

##### Performance knowledge enhancement

All Green Deals were able to create and/or disseminate knowledge, indicating the Green Deal’s ability to achieve knowledge enhancement. In concrete, the Flemish Green Deals aided in identifying bottlenecks, exchanging insight with and between key stakeholders, and conducting research. All of this resulted in the generation of a large variety of knowledge carriers such as reports and tools. These results are also consistent with the survey findings.

Notably, it was challenging to find a good balance between the information offered to organizations who were just getting introduced to the Green Deal’s topic, on the one hand, and to those that already possessed advanced knowledge and expertise, on the other hand.

Table 14: Quotes performance knowledge enhancement

Case	Quote
Shared Mobility	Intermediate Report 2019: “This Green Deal Shared Mobility ensured that expertise and knowledge on shared mobility could be exchanged between different partners.”
Circular Procurement	Whitepaper: “The participants formed a unique learning network: experimenting, sharing knowledge and experience, and exploring new forms of chain cooperation.”
Companies and Biodiversity	Interviewee 1: “So, the participants who joined [later] had less knowledge and could learn from what was already there [in the Green Deal].”
Domestic Wood Heating	Interviewee 2: “When I look at the Green Deals ... then the knowledge gathering in this Green Deal has worked very well.”
Circular Construction	End Report: “A steady growth in participants’ circular knowledge was therefore evident from the surveys conducted.”
Sustainable Urban Logistics	Interviewee 4: “I think a lot of people learned a lot from the Green Deal. We [the organizers] also learned a lot from it.”

##### Factors knowledge enhancement

First of all, the **actions of participants** boosted the creation of knowledge because they included conducting research, developing tools, detecting obstacles, documenting best practices, and formulating guidelines. At the same time, the information emerging from participants’ actions was shared with other Green Deal members. Nevertheless, it was mentioned one should not expect all participants to openly share the information and insight gained during their projects with everyone, especially when competing organizations are present within a Green Deal.

A **LinkedIn group** was a second internal factor that had a positive influence on knowledge enhancement. Through this online platform, both participants and organizers shared information with each other. One interviewee even mentioned that a LinkedIn group potentially works better than a newsletter for sharing knowledge because people intentionally open LinkedIn to find news, in contrast with a newsletter, which people stumble upon rather coincidentally (e.g., when going through their emails). Another interviewee, however, highlighted that the largest number of LinkedIn posts originated from organizers or other sector federations, rather than Green Deal participants.

Most Green Deals effectively used their **newsletter** to share information on their respective topics. In most cases, participants received a monthly newsletter with an update on ongoing projects inside and outside the Green Deal, upcoming Green Deal events, and other relevant information. Determining what information should be provided to all participants through the newsletter was sometimes challenging. Not all participants, for example, were interested in reading extensive reports on the projects of others.

Fourthly, the **personal guidance** of participants by the organizers helped in obtaining knowledge in the Green Deal Sustainable Urban Logistics. This Green Deal incorporated one-on-one meetings with participants where experiences were exchanged, and where the organizers shared their know-how and discussed available techniques and possibilities. Moreover, one document of Shared Mobility mentioned the need for more personal guidance as this would help identifying bottlenecks.

**Plenary events** had a positive relation with knowledge enhancement according to every Green Deal, except Domestic Wood Heating. During these events, presentations regarding a Green Deal-related subject were given, experiences and findings were shared, and people were informed regarding the commitments of other participants. Offering information during plenary events was considered most useful in the early stages of a Green Deal in order to familiarize the participants with the topic at hand. For the Green Deal Circular Procurement, the events were considered most interesting for participants with limited experience regarding circular procurement. Moreover, Companies and Biodiversity highlighted the need to delve deeper into specific aspects of the Green Deal's overarching theme during these plenary sessions.

The **research center** 'Proeftuin Circular Bouwen' from the Green Deal Circular Construction linked existing research to insight from pilot projects and developed various practical recommendations. This research center delivered several guides and reports on various topics of the Green Deal. However, some topics were not investigated, even though this was initially anticipated. At the same time, the research center also delivered results that were not foreseen at the start.



**Site visits** contributed to knowledge enhancement as they provided participants with the opportunity to ask questions and get valuable answers.

**Subsidies** also helped in generating knowledge because conducting research can be expensive. For the Green Deal Circular Construction, more findings were obtained, and more knowledge was gathered because of a subsidy that was acquired in this Green Deal.

Ninthly, **webinars** were a convenient way to exchange a lot of knowledge in a time-efficient manner. During these webinars, research findings and publications were discussed.

The Green Deal Companies and Biodiversity indicated that the **government website** had a positive influence on building knowledge. For the other Green Deals, no mention was made of a positive impact of this website on knowledge enhancement. One interviewee of the Green Deal Sustainable Logistics stated not to be aware of the number of people that visited the website.

The **specific website of a Green Deal** was useful for participants in order to acquire basic knowledge on the Green Deal's theme through available presentations, reports, guides, best practices etc. This website was, thus, leveraged to keep participants informed on the various results of the Green Deal. One interviewee of Circular Construction mentioned that Green Deal-related information was scattered across various platforms, namely the Green Deal-specific website and multiple websites of organizers. This proliferation of information was considered unfavorable. Furthermore, an organizer of Circular Procurement expressed disappointment that the Green Deal's website was not kept up to date after the Green Deal ended, and therefore, became useless.

**Workgroups** enhanced knowledge by allowing participants to do research together and identify bottlenecks, resulting in various concrete deliverables (e.g., inspiration guides, info sheets). They served as a place where participants with similar challenges could come together to share experiences in smaller groups. Nevertheless, it was noticed that not every workgroup had the same impact. This might be related to the fact that the members of the groups varied a lot over the years, making it difficult to build further on previous workgroup sessions. Workgroups covering very broad, overarching topics were also considered less impactful in terms of concrete results. Moreover, as some workgroups consisted mostly of beginners in terms of the Green Deal's topic, it was a challenge to share concrete experiences.

The COVID pandemic, as **exogenous context** factor, had both a positive and negative influence on the Green Deals. For Shared Mobility, on the one hand, it reduced the knowledge exchange among

participants. For example, due to the pandemic, training courses for organizations regarding scooter sharing, could no longer be provided. For the Green Deal Circular Construction, on the other hand, the obligation to focus on the digital environment because of the pandemic, resulted in increased sharing of knowledge.

Table 15: Quotes factors knowledge enhancement

Factor	Case	Quote
Action of participant	Shared Mobility	End Report: "Other signatories committed to long-term actions, such as ... conducting research on a particular aspect of shared mobility."
	Companies and Biodiversity	Intermediate Report: "For example, one of the participants developed a tool to measure biodiversity gains on its own sites."
	Domestic Wood Heating	End Report: "The Green Deal actions focusing on policy preparatory study research and knowledge building, have largely been completed."
	Circular Construction	End Report: "These numerous learning lessons were collected during pilot projects and in workshops..."
	Sustainable Urban Logistics	Interviewee 1: "These actions were also a means of getting information from the participants. We wanted to find out what the obstacles and hurdles are ..."
LinkedIn group	Circular Procurement	Whitepaper: "..., a closed LinkedIn group allowed for swift sharing of information and interaction with and between participants."
	Circular Construction	Interviewee 2: "I think that [the LinkedIn group] also helped to further spread knowledge about circular construction."
	Sustainable Urban Logistics	Interviewee 3: "Furthermore, when you go on LinkedIn, you have more the intention to get news and you provide a bit more time for that."
Newsletter	Shared Mobility	End report: "The newsletter thus proves to be a good tool to keep signatories informed about what is happening in the field of shared mobility, inside and outside the Green Deal."
	Circular Procurement	Interviewee 2: "It [the newsletter] was mainly about sharing knowledge."
	Companies and Biodiversity	Interviewee 1: "... that [newsletters] was our first channel for information transfer."
	Circular Construction	End Report: "In addition, participants also received a monthly news flash in their mailbox, keeping them updated on key activities and progress of the learning network."
	Sustainable Urban Logistics	Intermediate Report 2022: "Besides the actions of new participants, we also give an update on an existing, ongoing action each time [in the newsletter]."

Personal guidance	Shared Mobility	Interview VPO 6: "We [the organizers] want to sit together more one-on-one with signatories. [This led to] Missed opportunities. There are bottlenecks that have not come up yet."
	Sustainable Urban Logistics	Interviewee 2: "There were several meetings with the participating actors. This was mainly for exchanging experience, but also partly to give [participants] additional input on specific know-how or on other actors, possibilities, and techniques."
Plenary event	Shared Mobility	End Report: "Highlights were, undoubtedly, the editions of the international symposium Shared Mobility Rocks, where several Green Deal signatories acted as experts and were able to exchange knowledge."
	Circular Procurement	End Report: "Plenary sessions are great for informing and inspiring a large group of participants."
	Companies and Biodiversity	Interviewee 2: "So, on the one hand, these initiatives [both study days and field visits] were intended to share knowledge and, on the other hand, to network. We saw that it was very valuable to do the combination of the two."
	Circular Construction	Interviewee 3: "I think the action days absolutely succeeded in ... transferring knowledge."
	Sustainable Urban Logistics	Interviewee 4: "Yes, in thematic events, knowledge is shared. But you also share experiences and create a bit of discussion."
Research center	Circular Construction	End Report: "In this second sub-task, 'Proeftuin Circulair Bouwen' [the research center] focused mainly on unravelling the opportunities and obstacles that change-oriented (re)construction has to offer with regard to circular economy. This resulted in a 'Practical guide for building', which zooms in on the effectiveness and feasibility of technical solutions; a roadmap for circular business models, ..."
Site visit	Companies and Biodiversity	Interviewee 2: "So, on the one hand, these initiatives [both study days and field visits] were intended to share knowledge and, on the other hand, to network. We saw that it was very valuable to do the combination of the two."
	Sustainable Urban Logistics	End Report: "We started on the 13 <sup>th</sup> of February with a company visit ... Participants were given a guided tour and DHL representatives answered questions very openly."
Subsidy	Circular Construction	Interviewee 2: "Because of this financial incentive that was obtained, more results were achieved, and more knowledge was gathered compared to if this had not happened."
Webinar	Shared Mobility	Interviewee 2: "...and they [webinars] also showed that you can easily exchange a lot of knowledge in one hour, ..."
	Domestic Wood Heating	Interviewee 2: "There were also webinars, which introduced the studies."

	Sustainable Urban Logistics	Inspiration Guide: "In another webinar, we looked at the possibilities of greening the logistics vehicle fleet in the short term."
Website government	Companies and Biodiversity	Intermediate Report: "In addition, this Green Deal does knowledge building by sharing information, interesting seminars and good examples via its newsletter and website."
	Sustainable Urban Logistics	Interviewee 2: "... I have never seen visitor statistics [of the government website]."
Website specific	Shared Mobility	Intermediate Report 2019: "In this way [though the website, among other channels], the signatories stay informed about what is going on within the Green Deal and the aforementioned knowledge exchange can take place."
	Circular Procurement	Process Report: "The online platform is ideal for sharing any information relevant to support the learning journey ..."
	Circular Construction	Interviewee 3: "In addition, you also got a proliferation of information: some things were on the Green Deal's [specific] website within the open or closed section, some things were on [an organizer's] website, some things on [another organizer's] website, sometimes somewhere else. ... This is unfortunate."
Workgroup	Shared Mobility	Intermediate Report 2019: "Nevertheless, thematic workgroups are a great added value in a Green Deal. They are the instrument par excellence to learn from each other and share knowledge with each other."
	Circular Procurement	Whitepaper: "Bottlenecks for progress are brought to light and practical solutions are shared [during workgroups]."
	Domestic Wood Heating	Interviewee 1: "Yes indeed, the workgroups did studies ..."
	Circular Construction	End Report: "In the Community of Practice Circular Procurement several concrete procurement files and legal or other questions were scrutinized."
Exogenous context	Shared Mobility	Interviewee 1: "It is clear that participants value the knowledge exchange the most. You obviously have less of that during COVID."
	Circular Construction	Interviewee 1: "We shared more, shared more online [because of COVID]. That must have had an effect."

#### 4.1.5 Network establishment

##### Performance network establishment

All Green Deals achieved network establishment as they were able to bring people together, build a community, and create concrete collaborations. This network creation was considered one of the most valuable achievements within various Green Deals, both according to participants as well as organizers. In some cases, it became clear that the created network even continued to exist after the Green Deal came to an end, which indicates the long-term effect Green Deals can have in terms of network establishment. These results align with the responses from the survey.

However, one interviewee from the Green Deal Sustainable Urban Logistics mentioned there is still room for improvement in terms of networking. Moreover, some signatories from Shared Mobility missed out on collaboration opportunities because they had insufficient information on their fellow participants.

*Table 16: Quotes performance network establishment*

Case	Quote
Shared Mobility	Interviewee 3: "A network has been formed of parties that still find each other [after the Green Deal has ended]."
Circular Procurement	End Report: "The 'community' built during the Green Deal Circular Procurement (GDCP) was considered the greatest added value by participants. ... It also led to concrete collaborations."
Companies and Biodiversity	Interviewee 1: "... it [the Green Deal] really did involve collaboration between the business community and the government."
Domestic Wood Heating	Interviewee 1: "Because of this Green Deal, we have effectively made a lot of progress with the sector, with the companies, on knowledge collection and collaboration."
Circular Construction	Interviewee 3: "To be clear, I think the Green Deal Circular Construction is very successful because of the network that has been built, ..."
Sustainable Urban Logistics	Interviewee 4: "And nice collaborations have come out of that [Green Deal]. So, it is more about creating a kind of long-term network."

##### Factors network establishment

The first factor that had a positive relation with network establishment is the **LinkedIn group**. Circular Procurement emphasized the interaction that was possible with and between members of the Green Deal thanks to this group. Furthermore, for the Green Deal Circular Construction, a community grew because of this internal factor. However, one interviewee from this Green Deal did not consider this community to be really vibrant.

**Plenary events** were also a great tool for achieving network establishment by bringing all participants together. They allowed for informal dialogue and interaction, and they enabled the emergence of concrete collaborations. The only regret of one interviewee from Companies and Biodiversity was not organizing even more plenary events, to boost networking.

**Site visits** are a third factor that had a positive influence on network establishment. During the visits, participants had the chance to network with the other participants present.

Although webinars were, according to Shared Mobility, very good for knowledge enhancement, they were not considered useful to establish networks and co-create.

The **specific website** of the Green Deal Circular Construction helped (at least) one participant in finding partners for their project by being able to look up other participants and their contact details, strengthening the Green Deal’s network. However, the online learning platform of the Green Deal Circular Procurement, which was part of its website, was less suitable for interaction between participants.

Another way to establish a network was through **workgroups**. For multiple Green Deal, not only did the participants get in touch with each other and collaborate because of these groups, they also remained connected after the Green Deal ended. However, for Circular Construction, some workgroups only existed out of four or five people, which could not be considered a real community.

Lastly, the **exogenous context** factor COVID had a negative impact on network establishment. During this period, it was not possible for the participants to physically meet each other (e.g., during events), which resulted in reduced networking and less partnership establishment.

Table 17: Quotes factors network establishment

Factor	Case	Quote
LinkedIn group	Circular Procurement	Whitepaper: “..., a closed LinkedIn group allowed for swift sharing of information and interaction with and between participants.”
	Circular Construction	End Report: “The community that grew in this learning process helped each other to make the circular change. This happened ... online, in the LinkedIn group.”
Plenary event	Shared Mobility	End Report: “Shared Mobility Rocks immediately represented an opportunity to bring all signatories together again, ...”
	Circular Procurement	End Report: “The inspiration and action days are a successful format for bringing large groups of participants together in a learning network.”

	Companies and Biodiversity	Interviewee 2: "So, on the one hand, these initiatives [both study days and field visits] were intended to share knowledge and, on the other hand, to network. We saw that it was very valuable to do the combination of the two."
	Circular Construction	Interviewee 3: "I think the action days absolutely succeeded in their goal of bringing people together, ..."
	Sustainable Urban Logistics	Intermediate Report 2020: "In addition, five effective collaborations between participants emerged from networking at our events."
Site visit	Companies and Biodiversity	Interviewee 2: "So, on the one hand, these initiatives [both study days and field visits] were intended to share knowledge and, on the other hand, to network. We saw that it was very valuable to do the combination of the two."
	Sustainable Urban Logistics	End Report: "We started on the 13 <sup>th</sup> of February with a company visit ... After the visit, we crossed the street to continue networking ..."
Webinar	Shared Mobility	Interviewee 3: "For a knowledge outreach goal, you can do it digitally, but for co-creation, I think it is best to do it physically because it is all about people and about human contact."
Website specific	Circular Procurement	End Report: "The chosen learning platform proved less suitable for online interaction between the participants."
	Circular Construction	End Report: "Through the Flanders Circular website, I was able to look them [partners for a project] up and contact them."
Workgroup	Shared Mobility	Intermediate Report 2019: "Networking between partners and addressing bottlenecks is mainly done through the thematic workgroups of the Green Deal Shared Mobility."
	Circular Procurement	End Report: "The Circular Procurement Teams contributed greatly to strengthening the network between the participants."
	Domestic Wood Heating	Interviewee 1: "There were collaborations [during the workgroups]."
	Circular Construction	Interviewee 3: "However, I think this group of people [from the community of practice] actually still exists informally, but not formally."
Exogenous context	Shared Mobility	Interviewee 2: "It was a shame anyway that the interaction during the large [in-person] events, was taken away by COVID."
	Circular Construction	End Report: "The spontaneous networking, essential to form partnerships on an innovative theme like circular construction, was missing [due to COVID]."
	Sustainable Urban Logistics	Intermediate Report 2021: "After a year of online events [due to COVID], participants are looking forward to being able to get back together physically to network more strongly."

#### 4.1.6 Policy stimulation

##### Performance policy stimulation

Besides the Green Deals Circular Procurement and Companies and Biodiversity, all Green Deals stimulated policy. In these four Green Deals, various policy recommendations were formulated and communicated towards the Flemish government. Furthermore, Green Deals served as a sounding board for the government, offering advice on how to tackle Green Deal-related policy challenges. For example, Domestic Wood Heating wrote more than 10 cabinet memoranda consisting of proposals and regulations. In addition, Circular Construction provided input for the policy program 'Towards Circular Construction 2022-2030'. Again, these findings are in line with the results from the online survey.

Still, some participants of the Green Deal Shared Mobility argued that more frequent consultations with the Flemish government would have increased the Green Deal's impact. Moreover, even though Domestic Wood Heating clearly accomplished policy stimulation, this did not result in any actual policy change on the government's end. Besides, one interviewee of the Green Deal Circular Procurement mentioned that focusing on policy stimulation would have had little impact. Therefore, this Green Deal focused on advising buyers, rather than policymakers.

Table 18: Quotes performance policy stimulation

Case	Quote
Shared Mobility	End Report: "... and formulated recommendations towards policy. As a result, this Green Deal has had a solid impact on mobility policy in Flanders."
Circular Procurement	Interviewee 2: "There were recommendations formulated [in the Green Deal], but I think that was mainly towards buyers themselves in the market."
Companies and Biodiversity	Survey respondent 2: 5/10 formulating policy recommendations, 5/10 pursuing legislative changes
Domestic Wood Heating	Interviewee 3: "Based on all the preparatory work within the Green Deal, we have certainly written more than 10 cabinet memoranda with proposals on regulations."
Circular Construction	Interviewee 1: "Without the Green Deal, we would be much less advanced: ..., also the policy program would have received much less input."
Sustainable Urban Logistics	Interviewee 1: "The Green Deal was also a sounding board for the Flemish government and that was, partly, because of those policy recommendations."

##### Factors policy stimulation

The **actions executed by participants** contributed to policy stimulation. The interaction with policy was a major element of the participant's actions for Shared Mobility. Furthermore, participants of Domestic Wood Heating developed concrete policy proposals as part of their actions. In the Green Deal



Sustainable Urban Logistics, a number of participants undertook action to stimulate sensible regulation, by synthesizing the bottlenecks defined during the projects of fellow participants.

Secondly, the **research center** from the Green Deal Circular Construction was able to create specific policy recommendations by using existing literature and insight derived from pilot projects of the participants.

**Workgroups** also played a role in policy stimulation as these groups identified bottlenecks, translated them into various policy recommendations, and shared them with the responsible Flemish and federal politicians. Nevertheless, the Green Deal Companies and Biodiversity had aspirations to work more on policy recommendations through its workgroups but was unable to accomplish this.

The **current regime** had a positive impact on Shared Mobility and a negative impact on Domestic Wood Heating. Thanks to the presence of non-profit organizations and a fairly compact ecosystem, the Green Deal Shared Mobility was able to communicate directly with the cabinets and place shared mobility on their agenda. In Flanders, no strong lobby organizations are required to achieve this dialogue with policymakers. The fact that much of the regulatory power on shared mobility lay with the local governments facilitated the Green Deal’s ability to stimulate policy even more. For Domestic Wood Heating, the presence of widely divergent opinions on wood heating made it difficult to stimulate legislative change.

Finally, the energy crisis (i.e., **exogenous context**) at the end of 2021 caused gas prices to soar, which hindered the introduction of new regulation on wood burning.

Table 19: Quotes factors policy stimulation

Factor	Case	Quote
Action of participant	Shared Mobility	Interviewee 2: “Creating awareness was an important part of the actions, along with interacting with policy, because there were also a lot of local authorities participating in the Green Deal, intercommunal organizations, also the regional government.”
	Domestic Wood Heating	End Report: “The actions aimed at improving domestic wood combustion can be roughly divided into ... and actions aimed at developing concrete policy measures and instruments.”
	Sustainable Urban Logistics	Intermediate Report 2020: “We see that the self-selected actions in this Green Deal focus on: ... Sensible regulation and technological innovations.”
Research center	Circular Construction	End Report: “This group [research center] linked existing research to the field of experience from pilot projects, to develop substantiated policy and practical recommendations.”

Workgroup	Shared Mobility	End Report: "... but, at the same time, they [workgroups] were also used to provide concrete bottlenecks and recommendations to the Flemish and federal policy level."
	Companies and Biodiversity	Interviewee 2: "Especially through the workgroups, we could have done even more. We could have gone even deeper within these workgroups and worked more around policy."
	Domestic Wood Heating	Intermediate Report: "..., three [clusters of work] are driven by a workgroup and one cluster by the steering group: - ... - Vision development... The implementation of the Green Deal is broadly on track."
Current regime	Shared Mobility	Interviewee 1: "It is also because of the presence of non-profit organizations ... and a fairly compact ecosystem that we can talk to cabinets and get it on their agenda."
	Domestic Wood Heating	Interviewee 3: "The policy level was difficult. Everywhere, wood burning is a very sensitive issue because you directly involve citizens. Opinions are very polarized and radicalized."
Exogenous context	Domestic Wood Heating	Interviewee 3: "Then came the energy crisis at the end of 2021 and then suddenly, we were not allowed to work further [on the regulations]."

#### 4.1.7 Sustainability improvement

##### Performance sustainability improvement

Every Green Deal contributed to positive sustainable outcomes. The concrete improvements in the Green Deals were very theme-dependent. Shared Mobility accelerated the use and implementation of various shared mobility products (e.g., car-sharing, bike-sharing, sharing of electric cars or bicycles). The Green Deal Circular Procurement realized a growth of the Flemish market for circular products and services. The Green Deal Companies and Biodiversity enhanced and increased biodiversity value in business parks, while Domestic Wood Heating reduced particulate matter emissions from domestic wood combustion. Furthermore, Circular Construction amplified the usage of circular construction practices. And lastly, Sustainable Urban Logistics made car fleets greener. The findings of the surveys match these results.

Although these accomplishments are positive, some sustainability targets of Green Deals were not met. Moreover, some companies were already planning improvements related to Green Deal topics, even without the Green Deal, making it difficult to assess the true impact of the Green Deal for those participants. In addition, multiple Green Deals had no quantitative data available on the progress made, partly because no baseline measurements were executed and no quantitative sustainability targets were set.

Table 20: Quotes performance sustainability improvement

Case	Quote
Shared Mobility	Interviewee 1: "I think the Green Deal ensured that more infrastructure has been put in place: definitely more shared vehicles, more charging infrastructure."
Circular Procurement	Whitepaper: "The procuring participants and suppliers confirmed that the Flemish market for circular products and services has grown."
Companies and Biodiversity	Intermediate Report: "The Green Deal Companies and Biodiversity thus ensures an effective increase of biodiversity value on business parks."
Domestic Wood Heating	End Report: "..., particulate matter emissions from domestic wood combustion (PM2.5) decreased from 6107 tons in 2016 to 4423 tons in 2020 (28% reduction)."
Circular Construction	End report: "The extent to which circular construction was put into practice also increased."
Sustainable Urban Logistics	Interviewee 4: "Because of the Green Deal, there have been many companies that have gone green by greening their car fleet."

#### Factors sustainability improvement

The **actions of participants** clearly contributed to achieving sustainability improvements. As part of their actions, participants placed new car-sharing vehicles in the market, procured circular products, implemented flower meadows in their business parks, set up modular constructions, and increased emission-free delivery of Flemish cities. It was noted, however, that organizers should ensure that the projects of participants are of sufficient quality in order to prevent them from greenwashing.

**Workgroups** are a second internal factor that had a positive influence on the sustainability improvement goal. The efforts made within the workgroups of Shared Mobility contributed to the increase in the number of bicycle and car sharers, electric shared vehicles, and carpool initiatives. In addition, one workgroup of the Green Deal Domestic Wood Heating managed to make sustainability progress as well.

**Current regime** factors had a negative influence on sustainability improvement for the Green Deal Sustainable Urban Logistics. Firstly, this Green Deal dealt with the absence of sufficient charging infrastructure for electric vehicles, causing problems when wanting to deploy electric vehicles. Secondly, the conflicting interests of actors (e.g., transporters, local authorities, and recipients of goods) made it more difficult to innovate.

Lastly, the **exogenous context** had an influence on sustainability improvement. Overall, the COVID pandemic enlarged the bike sharing initiatives of the Green Deal Shared Mobility after initially creating

a decline due to telework and less travel. Furthermore, low interest rates during this Green Deal increased investment in shared mobility. Similarly, COVID facilitated the aim of Sustainable Urban Logistics to increase the use of bikes for making deliveries.

Table 21: Quotes factors sustainability improvement

Factor	Case	Quote
Action of participant	Shared Mobility	End Report: "Both the actions of the signatories and the efforts of the workgroups contributed to ..., increasing the number of bicycle and car sharers, ..."
	Circular Procurement	Interviewee 2: "I think, out of 150 [participants], the majority did manage to bring two circular procurement projects to completion. So, I think there are definitely sustainability gains there."
	Companies and Biodiversity	Intermediate Report: "24.7% of all actions have already been completed, 51% of all actions are ongoing, 24.3% of all actions are yet to be launched. Examples of actions include ..., creating flower meadows, ..."
	Circular Construction	End Report: "Several projects from the Green Deal Circular Construction can be linked to those activities. ... 'Bruil' placed a 3D-printed house with concrete on the Camp C site. ... 'Juunoo' developed modular and demountable interior walls."
	Sustainable Urban Logistics	End Report: "The 49 participants created 79 unique actions that contribute to more sustainable urban logistics."
Workgroup	Shared Mobility	End Report: "Both the actions of the signatories and the efforts of the workgroups contributed to ..., increasing the number of bicycle and car sharers, ..."
	Domestic Wood Heating	Intermediate Report: "..., three [clusters of work] are driven by a workgroup and one cluster by the steering group: - Improving domestic wood heating ... The implementation of the Green Deal is broadly on track."
Current regime	Sustainable Urban Logistics	Website 1: "Indeed, innovating in urban logistics is not self-evident. ...also, because different actors (transporters, local authorities and recipients of goods) often have conflicting interests."
Exogenous context	Shared Mobility	End Report: "On the other hand, more people got on their bikes precisely because of the pandemic. At the end of 2020, this allowed us to record a total of 430,042 bike sharers."
	Sustainable Urban Logistics	Interviewee 3: "There was COVID. Therefore, there were more bikes and cargo bikes [to make deliveries]."

## 4.2 Recommendations

In this section, suggestions will be provided for enhancing the Green Deal instrument, with the goal of improving its future performance. This entails recommendations related to specific internal factors as well as general recommendations.

### 4.2.1 Factors-specific recommendations

#### Personal guidance

Organizers should put more effort into the support of individual participants. They should coach and guide participants on their journey towards realizing the projects to which they are committed. More tailored advice could motivate SMEs and companies with inferior initial situations to get started on the Green Deal's topic. Furthermore, without this individual follow-up, it is difficult for organizers to get a sense of how the Green Deal is perceived within the participating companies. However, by supporting participants more one-on-one, the organizers could acquire a better understanding of what participants are currently working on and what they want, which would allow these organizers to respond accordingly. In addition, the individual follow-up by organizers is necessary in order to ensure that the experiences of individual participants are shared with other participants as well, which, in turn, inspires others and allows them to learn from mistakes made. Nevertheless, it should be prevented that a Green Deal transforms into a group of organizations that merely comes together with the aim of receiving advice.

*Table 22: Quotes personal guidance*

Case	Quote
Shared Mobility	Interviewee 1: "It is important though that, as a leader, you know what each organization is doing. If an organization is just doing something on its own and the experience is not shared, it is irrelevant that that action is part of the Green Deal."
Companies and Biodiversity	Intermediate Report: "Ways to also encourage SMEs and companies with a less good initial situation to get started with biodiversity and business parks could be points of attention for a possible follow-up trajectory. Incentives can be provided by, for instance, more tailored advice, ..."
Sustainable Urban Logistics	Interviewee 1: "So, I would advise even more coaching and guidance of those companies in realizing their actions during the process." Interviewee 4: "I have never thought about it so concretely before, but I think it [one-on-one guidance] would certainly not be a bad idea. ... Then you also feel more what they [participants] want and what they are doing, and you can respond to that."

### Plenary event

In terms of plenary events, the organizing team should start with profound preparation. This includes finding sponsors and partners, making a scheme for logistics, drawing up a clear program, and so on. Furthermore, it is important for organizers to keep looking for truly inspiring examples to showcase during these events. It is also beneficial to have a sufficient number of prominent speakers present in order to ensure participants find the event engaging and are motivated to attend. In addition, organizers should make sure that speakers who are less mainstream also get to present during these events in order to illuminate a theme from a variety of angles. Lastly, the organizers should integrate a progressive trajectory in the learning journey of participants so that they feel a sense of continuous progress.

Besides the content, the location of plenary sessions is also of importance. Participants are less inclined to attend events that happen in distant locations. Therefore, it is advised to sufficiently vary the event location in order to increase the ability of a larger range of participants to attend at least some plenary events.

*Table 23: Quotes plenary event*

<b>Case</b>	<b>Quote</b>
Circular Procurement	End Report: "By varying location for these days [plenary events], you increase accessibility for participants."
Companies and Biodiversity	Interviewee 2: "It is also important to keep going for truly inspiring examples [on the plenary events] so that you can provide something interesting to everyone. It is also important to provide enough 'heavyweights' in terms of speakers so that participants find them interesting and are motivated to come to the event."
Sustainable Urban Logistics	Interviewee 4: "So, you should actually bring speakers [for the thematic events] who are maybe not so mainstream. ... In this way, a theme is illuminated from different angles."

### Subsidy

Many recommendations were made regarding subsidies. There is broad consensus that, if a Green Deal wants to have a significant impact, (more) budget is needed, especially for the organizers to manage the Green Deal. Financial support for organizers is essential in order for them to coordinate and follow up the Green Deal properly from start to finish. It is really challenging for organizers to live up to their commitment of leading the Green Deal as this work usually comes on top of already existing commitments related to their regular business operations. As a consequence, the tasks organizers are intended to do, often, do not remain top priority. One interviewee noted that organizers should spend at least a quarter or a third of their overall work time on a Green Deal to achieve some depth in that

Green Deal. By providing organizers with financial resources, these organizations can more easily allow employees to dedicate time and effort to managing the Green Deal. In concrete, when they would be compensated for their time, organizers could do more in-depth research on what the current needs are of participants in the Green Deal. It could also allow organizers to put more effort into spreading the importance of the Green Deal and its topic. Furthermore, funding for organizers would provide them to visit individual companies, meet potentially interesting speakers for the Green Deal's events, etc.

In order to justify this basic funding and prevent organizations from creating a Green Deal with the sole purpose of acquiring subsidies, the government should evaluate whether the organizers have sufficient experience on the theme of the potential Green Deal and whether they have a constituency large enough to have an impact. A final recommendation related to the basic funding for Green Deal organizers is to ensure that these organizers already know from the beginning of the Green Deal how they will be financially supported until the end. It creates a lot of uncertainty within a Green Deal if organizers have to search for basic funding regularly during its actual execution.

Besides a subsidy for coordination, funding for the pilot projects executed within a Green Deal should be provided. These financial resources would allow participants to free up time to experiment and would compensate for certain additional costs (e.g., purchasing certain materials) required to execute their projects. One interviewee also noticed a clear relation between the funding participants received for executing a pilot project and the effort invested by those participants. Furthermore, by providing participants with financial resources to execute a project, they could be held more accountable, and more reporting on the projects' progress could be requested. Nevertheless, as the Green Deal remains a voluntary commitment, the organizers would still not have the means to fully enforce any commitment.

The overall budget for pilot projects should be provided to individual Green Deals based on the concrete context and intentions of that Green Deal (e.g., number of projects, degree of innovation and complexity within projects, infrastructural requirements within projects). In addition, a number of conditions should be attached to a specific pilot project receiving part of this budget. For example, the collaboration between at least three participants within a project could be a potential requirement. In this way, the funding could boost cooperation and co-creation among participants, increasing the level of innovation within the Green Deal.

While the basic funding for organizers should be determined in advance, organizers should have the possibility to show the Green Deal's intermediate results (e.g., after two years) to the government and request additional funding for pilot projects during Green Deal execution. This would make the Flemish

Green Deal instrument more dynamic. However, one interviewee questioned whether this funding should come from the Green Deal itself and suggested seeking other grant channels for financing the pilot projects.

There were mixed opinions on a general financial compensation for the time participants spend in a Green Deal. In addition to a subsidy for participants' pilot projects (e.g., to compensate for extra costs of projects), there were suggestions to financially compensate participants in general, for the time they spend on the Green Deal. This suggestion is based on two main arguments. Firstly, it is believed that this funding could enable participants to attend Green Deal events and meetings more often, which happens less because of the excessive time commitment that comes with attending those gatherings. This time commitment results in participants being less up to date with the developments within the Green Deal. Secondly, some general funding for participants to compensate for the time spent on the Green Deal might be a determining factor for certain organizations (e.g., SMEs) when deciding whether or not to join the Green Deal.

However, there were also voices that consider funding for participants not a good idea. They warned that providing subsidies for participants could have a perverse effect, as participants might join the Green Deal in order to acquire these financial resources, rather than out of a real commitment. It was highlighted that the strength of the Green Deal instrument lies in the fact that organizations work together on a theme merely based on voluntary commitment. General financial support for participants would, therefore, not be considered necessary or desirable. Furthermore, one interviewee argued that a Green Deal already offers numerous benefits, such as training programs and professional advice. It was argued that accessing this training or advice outside a Green Deal would have cost more than participants' current expenditures within a Green Deal.

A final issue related subsidies is the lack of a unified approach regarding the funding of Green Deals in Flanders. The funding provided by the Flemish government happens ad hoc, with no clear vision. For one Green Deal, a subsidy fund is available, for another Green Deal, it is not. The lack of clear determinants for getting financial support creates frustration among organizers. Therefore, it is recommended for the Flemish government to create a robust, transparent policy on how to grant subsidies to Green Deals.



Table 24: Quotes subsidy

Case	Quote
Shared Mobility	<p>Interviewee 1: "I note that the Green Deal policy of the Flemish government is a bit ad hoc. For one Green Deal a subsidy fund is used, for another it is not. That comes across as a bit odd. It creates frustration."</p> <p>Interviewee 2: "I think that is actually the strength of a Green Deal: we go together, voluntarily, for something. But I find it important to have money for the extra costs of a living lab."</p> <p>End Report: "Furthermore, in several interim evaluations of the Green Deal (both in 2018 and 2019), the comment was made that financial support for the coordination team is really necessary to better follow up the Green Deal ... It is a must to achieve good results within a Green Deal."</p>
Circular Procurement	<p>Interviewee 2: "For what we did, I do not think the participants lacked resources. They received a training program. They received professional advice. If they [participants] would have had to do these things themselves or if they would have had to hire consultants for that, it would probably have cost them a lot more than just the time they spent on the Green Deal."</p>
Companies and Biodiversity	<p>Interviewee 1: "If you have more time as an organizer [because of a subsidy], you have more time to think about it [the Green Deal], go in-depth and do more in-depth research to see what the needs are."</p>
Circular Construction	<p>Interviewee 2: "If you receive financial support, you are more obliged to do what you set out to do. In principle, everyone had to organize a pilot project as a participant, but you notice that, in the end, not everyone did. You do not have a stick as an organizer either, you cannot make it compulsory."</p>
Sustainable Urban Logistics	<p>Interviewee 4: "The Green Deal is a government instrument. I think that if you are in a government and you ask companies to put time and resources into it, surely one can expect a minimum budget from the government. ... What should certainly be standard, is the compensation of organizers for their time."</p>

### Workgroup

Overall, multiple recommendations were given in terms of workgroups. Firstly, one interviewee advised selecting the themes of the workgroups in a bottom-up manner, namely by the Green Deal participants themselves, rather than by the organizers. Participants should be able to pitch the themes they deem important and highlight the bottlenecks they aim to tackle. Another recommendation to make the workgroups more dynamic and concrete is to set a clear end goal (i.e., deliverable) and an explicit deadline in each workgroup regarding this deliverable. For example, organizers could state that a workgroup only has one year to produce a predetermined final result. When a workgroup has a well-defined agenda and objective, it allows participants to better assess whether participating in that workgroup would provide value to them. In addition, it enables the group of participants that do decide

to join, to make concrete progress based on their deliberate commitment. This approach reduces the risk of workgroups transforming into mere 'talking sessions' with no clear results.

Secondly, it is vital for the workgroups to be well-prepared and well-organized. The success of workgroups depends on the quality of guidance and coaching of the participants by organizers. However, it was highlighted that the start-up, coordination, communication, and engagement maintenance of a workgroup are very time-consuming and require major effort from organizers. There is a need for organizers with more available time to put their shoulders to the wheel, in order for workgroups to reach their full potential. This, most likely, requires additional financial support for the organizers, corresponding with the previous recommendation regarding subsidies. As an alternative solution, Green Deals could also bring in a professional moderator or facilitator, who could challenge and support participants and guarantee that workgroups keep following their prepared structure. Furthermore, it was recommended to invite experts to workgroups to address certain questions of participants, especially if the experience available in the workgroup is considered insufficient.

Thirdly, it was advised to disseminate the results of individual workgroups more outside the workgroup that generated this output. Not all Green Deal participants (e.g., smaller organizations) have the ability to attend workgroups but could, nonetheless, benefit from this information. Therefore, participants should be actively and continuously informed on the findings of the workgroups. By doing so, workgroups could also, in turn, receive useful feedback from Green Deal participants outside that workgroup.

Lastly, the composition of the workgroups should remain as fixed as possible to ensure making substantial progress by building upon previous sessions and forming a strong network. One interviewee suggested the potential value of organizing workgroups that consist of a predetermined, fixed number of organizations that aim to move forward together, without allowing other Green Deal participants to join from time to time when they desire. This person believed that these exclusive 'coalitions of the willing' would be an interesting approach, on the condition that the right experience and the right organizations are present in these groups.

Table 25: Quotes workgroup

Case	Quote
Shared Mobility	<p>Interviewee 2: "In the new Green Deal [on residential environments], there will be an end goal of the workgroups and a workgroup will also be limited in time. A workgroup may last a maximum of a year before it has to produce a result. These are all adjustments to make the workgroups more dynamic and concrete, which makes us think the workgroups will do better."</p> <p>Intermediate Report 2019: "It also remains important to actively involve all signatories. Smaller organizations have fewer resources to attend all workgroups and are therefore forced to skip meetings. It is essential to also communicate the findings of the workgroups to them and ask them for input. ... In addition, sufficient support for the organization of the workgroups is essential."</p>
Circular Procurement	<p>End Report: "Provide a good structure for the Circular Procurement Team (CPT) [workgroup] sessions so that the participants get to work in concrete terms and evolve step by step. A CPT session should also be well prepared each time."</p> <p>End Report: "The success of a CPT session depends on good coaching. The use of a professional moderator, who can challenge and support participants, is an asset here."</p>
Circular Construction	<p>Interviewee 3: "A third option could be a 'real' Community of Practice, namely one that is a closed group. This would involve, for example, 20 people agreeing to move forward and exchange together..."</p>
Sustainable Urban Logistics	<p>Interviewee 1: "I think it would definitely be interesting to conduct sessions in smaller groups where questions can be asked to an expert."</p>

**4.2.2 General Recommendations**

Clarify whether top-down or bottom-up instrument

There is a need for clarity regarding the directionality (i.e., top-down or bottom-up) of the Flemish Green Deal instrument. Two interviewees mentioned that there is a shift occurring regarding how the Green Deal instrument is being used or perceived. Originally, the Green Deal was seen as a clear bottom-up instrument. It was a tool for stakeholders, such as companies and other organizations, to initiate and work on a relevant topic. However, it is more and more being used by the government itself (i.e., top-down) as a way to set up a participation process. One interviewee pointed out that a number of Green Deals currently (i.e., 2024) in execution or in preparation, are not ideas from any organization but rather initiatives from the government itself.

It was mentioned that the true value of the Green Deal instrument lies in providing organizations the opportunity to approach the government with proposals to start Green Deals. By increasingly organizing Green Deals top-down, the government risks organizations forgetting that they can initiate a Green Deal themselves and, thereby, losing the reflex to leverage the Green Deal instrument to start

a bottom-up participation process. Another interviewee believed it is beneficial to have involvement from the Flemish government and administration, but it should not come at the cost of too many top-down rules. A Green Deal should remain innovative, and if a government would control what a Green Deal should look like, the instrument would lose its charm.

Table 26: Quotes clarify whether top-down or bottom-up instrument

Case	Quote
Shared Mobility	Interviewee 2: “Now, I feel the instrument has a double role: on the one hand, a Green Deal is a bottom-up instrument but, on the other hand, the government wants to steer from the top. Both are possible but, [currently], it is just not clear for us.”
Companies and Biodiversity	Interviewee 1: “A Green Deal started as a bottom-up instrument, to give life or more attention to bottom-up ideas. However, it is now often used by the government to set up a participation process in a different way. I think the Green Deal instrument is molting a bit into something else.” Interviewee 1: “There is a risk that organizations no longer have the reflex to use a Green Deal for their initiative. Organizations may forget that they can organize a Green Deal with their bottom-up initiative because all the other Green Deals are organized top-down.”

Measure impact

It is recommended to set measurable sustainability objectives, targets, or indicators for Green Deals. Setting indicators and determining the starting point quantitatively can provide direction and allow for articulating the Green Deal’s goals more concretely and cohesively. Quantitative objectives are also often requested at the political level. By evaluating the impact of a Green Deal along its trajectory, compared to its baseline situation, organizers would be able to demonstrate hard results to politicians (and clients), thereby enhancing the instrument's credibility. One interviewee suggested creating a simple, uniform scheme with basic indicators (e.g., the number of vehicles, their types, and mileage), which could be converted to metrics such as carbon savings. Then, this clear and concise one-page scheme should be filled in annually by participants and could help 'prove' sustainability improvements and boost the shift towards sustainability.

However, measuring specific impacts like emission reductions or reduced mileage is considered difficult or impractical due to its complexity and lack of precise methods. Monitoring the sustainability impact is especially challenging for smaller companies that often do not have relevant calculation models available. To address these challenges, it is advised to set the indicators that will be measured during the Green Deal collaboratively with participants, to track participants’ progress using user-

friendly tools (especially when dealing with a large number of participants) and to provide training for participants to ensure the actual usage of these tools. One interviewee advocated for incorporating qualitative analysis rather than strict numerical targets, suggesting that, while some indicators are necessary, they should not be overly rigid.

Two additional struggles when setting targets are the fact that participants fear being punished if they do not meet these objectives and the fact that it is impossible for Green Deal organizers to force participants to expose their internal business processes, with the aim of measuring impact. Companies might be reluctant to share relevant but sensitive information, fearing the potential use of this data by competitors also present in the Green Deal. Therefore, clear agreements with companies regarding the sharing of results should be made. For example, it could be agreed upon to only share aggregated data (i.e., about the progress of the Green Deal as a whole) with other participants, rather than the progress of individual participating organizations.

In general, reflecting on possible impact measures is considered valuable. However, if no broadly supported and useful indicators can be pinpointed within a reasonable timeframe and with reasonable effort, this lack of measurable objectives should not hinder the Green Deal.

Table 27: Quotes measure impact

Case	Quote
Circular Procurement	Whitepaper: “It is important to keep track of the participants’ projects, their progress and impact. For the coordinators as well as for the participants themselves. Advice on progress tracking: - If you have a large number of participants, it might be efficient to use a dedicated software or tool for this. - Try to incorporate guidance on goals, strategies, and ambitions for the projects. - ... - Decide with the participants which indicators will be measured. - The tool must be extremely user-friendly, otherwise the response rate will be low. - A manual or training might be necessary to activate participants to start using it.”
Circular Construction	Interviewee 1: “It is important, on the one hand, to measure the start [situation of the Green Deal] and, on the other hand, to set a direction. Therefore, you should try to set indicators, targets. To me, indicators are things you strive for. You say: ‘I want to go there, and this is how it can express itself.’ But apparently, participants fear that they will be penalized if they do not meet the targets.”
Sustainable Urban Logistics	Interviewee 3: “One should make an evaluation of the impact of the different engagements. It valorizes what you have done within the Green Deal. You could use these results to show politicians, and your clients that the Green Deal is achieving sustainability results.”

### Enhance commitment of participants

All participants in a Green Deal should make some minimum commitment in order to prevent freeriding. However, an individual participant's commitment should be filled in flexibly, in close collaboration with this participant, and should take into account their individual capabilities. In addition, by allowing variety in the level of commitment of different participants, a Green Deal could better accommodate 'followers', who may find it challenging to take significant steps immediately. For instance, participants with more knowledge and experience on the Green Deal's topic could commit to in-depth work, while those who are less familiar could focus on establishing connections and gradually increasing their involvement in the Green Deal.

Opinions vary regarding the level of ambition that should be requested from Green Deal participants. Finding this sweet spot is challenging. One interviewee stated that participants should not necessarily need to attend events or meetings, as a participant who is more action-oriented can be an equally valuable contributor, particularly in Green Deals with many participants. Organizers could make clear that these more action-oriented participants can focus on executing their project and should not feel pressure to attend Green Deal gatherings (e.g., plenary events) if they do not find the time. In addition, some believe that demanding too much from participants and being very result-oriented could potentially stifle momentum.

Others argue that more concrete and ambitious actions are preferable considering that, even if only half of the targets would be met, the cumulative effect of these projects could already be considered a success. Furthermore, it was mentioned that, in case a Green Deal is kept deliberately small, more commitment can be requested from each participant.

It is also recommended to give participants more time during the Green Deal to formulate concrete actions, with an emphasis on forming connections between participants during this process. This approach could help prevent similar actions being executed in parallel. Another challenge related to participants' projects are the frequent staff changes within participating organizations, diminishing organizations' awareness regarding their own actions and objectives within the Green Deal. To tackle this issue, it is suggested to appoint multiple contact people within an organization, to ensure a continuum of coordination and communication, and to improve the information flow within that organization. This would aid participating organizations to better understand what is expected of them, where opportunities lie, and what they can respond to, over the total duration of the Green Deal.

Table 28: Quotes enhance commitment of participants

Case	Quote
Shared Mobility	Interviewee 1: I would make the distinction. I would ask: ‘What do you want to do? And whatever you say is okay’. The participants do sign a deal, so they have to commit to do something, but it is okay if they participate in all kinds of meetings, and it is also okay if they just do their own actions and report on them.” Interviewee 3: “So, I think setting a lower limit is good in terms of commitment.” End Report: “For signatories who already had more knowledge and expertise, this [the Green Deal] was often too ‘low-key’. ... A possible solution is to distinguish between a general part of the Green Deal that focuses on networking and a core group that works more in depth.”
Circular Procurement	Interviewee 2: “You always have pioneers and then followers. It depends on the subject. It is not obvious for everyone to take big steps right away... So, in itself, I do think that it could make sense to work with different degrees of commitment.”

Promote inter-Green Deal learning

To enhance the effectiveness of Green Deals, it is recommended to facilitate and boost dialogue among Green Deal organizers. As an initiative of the Green Deal Counter, there are currently (i.e., 2024), already more regular meetings among Green Deal organizers compared to the time during which the six analyzed Green Deals were in execution. The topics discussed during Green Deal gatherings, however, remain quite general to this day and should try to go more in depth, in order to be considered sufficiently interesting. For instance, it was suggested that Green Deal organizers receive training on maintaining participant motivation, organizing successful plenary events, mainstreaming Green Deal topics, etc. This training would be particularly helpful because Green Deal organizers often lack formal training in process management and, therefore, would benefit from additional guidance in creating and managing a Green Deal. Besides formal training, the inter-Green Deal gatherings should also provide space for organizers to share their difficulties and challenges as well as critical success factors, based on their practical experience acquired when managing a Green Deal.

Besides plenary meetings with all organizers, it is recommended to organize more frequent, smaller meetings with organizers working on a similar topic, such as climate and biodiversity. This could be accomplished through inter-Green Deal workgroups.

Finally, while learning from other Green Deals is valuable, it is advised that each Green Deal should still follow its unique path, considering its specific context, rather than entirely replicating another Green Deal's approach.

Table 29: Quotes promote inter-Green Deal learning

Case	Quote
Circular Procurement	Interviewee 2: “No, we have not [sought advice from other Green Deals]. We have not looked at other Green Deals. That could have helped. But I think it was also an added value of the Green Deal Circular Procurement that we figured out ourselves where we wanted to go and what was needed. If you look too much at others, you might adopt processes that cannot really be applied to your specific situation.”
Companies and Biodiversity	Interviewee 2: “There should be more meetings with the leaders of the Green Deals that are working on similar topics. It would be useful to meet more regularly in a smaller group with people working on similar issues, for example in workgroups.” Interviewee 2: “..., the organizers’ meetings are often quite general. It could sometimes zoom in a little deeper on certain topics. For example: ‘How to keep motivating participants to come to events?’, ‘How to organize a good study day?’ I think all organizers have similar problems with that. We could also zoom in on how to make the Green Deal topics more mainstream. Now the awareness around the topic is somewhat limited to the participants, but it should also be able to flow through to the general public. Everyone is working on the topic of their Green Deal, but we are not process managers. It is a bit of trial and error.”
Circular Construction	Interviewee 1: “[The potential of the Green Deal learning network could be increased] By using other methodologies. For example, doing workshops, where organizers can introduce themselves to each other, can say what they did, what their stumbling blocks were and can discuss critical success factors.”

Execute research in advance

Before starting a Green Deal, organizers should try to assess the value of that potential Green Deal from the participants’ perspective. In concrete, organizers are advised to thoroughly research the needs of potential participants. This can be achieved, for example, by organizing a preparatory workshop with organizations that would be valuable participants of the Green Deal. This would allow Green Deal organizers to assess whether or not there is enough traction and interest in the topic of a potential Green Deal and whether the topic at hand is the correct, most relevant one to focus on. Extensive exploration and research are necessary to grasp the requirements of the Green Deal. Green Deal organizers or hired researchers could gather insight (e.g., through interviews) on potential participants’ drivers and barriers when it comes to taking action on the sustainability topic under consideration. This preliminary research to test the waters would help tailor the Green Deal to better meet participants’ needs. The need for this research, of course, also depends on the degree of organizers’ pre-existing understanding of the topic and sector at hand.



Table 30: Quotes execute research in advance

Case	Quote
Circular Procurement	Interviewee 1: "I think it [a preparatory workshop with potential participants] is relevant for every Green Deal to assess whether the concept is right and whether there is enough traction and interest. It was also a bit of polling for participants. 'Does the topic live?' Because there are Green Deals that get started with few participants."
Companies and Biodiversity	Interviewee 1: "I would also explore more what we need [in the Green Deal]. ... I think you [organizer] have to do research, put yourself in the shoes of the companies, and think why companies would want to take action. Then those motivations can be acted upon. But that requires research. You have to start doing interviews, ask questions, and analyze data."

Diversify both organizers and participants

Green Deals should aim for diversity in both participants and organizers.

Firstly, it is crucial to assemble the right organizers for a Green Deal. More specifically, these organizers ought to be various representatives of the group(s) the Green Deal targets. Ideally, the organizers are each responsible for a different target group, in order to avoid any competition between them. Additionally, the organizers should be committed to their roles and able to fulfill their responsibilities. One interviewee also suggested for the organizers to collaborate with an external party, such as a consultancy firm, that has expertise in structuring Green Deals. This external party could be tasked with the planning and coordination of the various initiatives taken within the Green Deal (i.e., internal factors), functioning as the Green Deal’s practical architect. This, of course, should happen in close collaboration with the Green Deal organizers.

Secondly, in addition to having a well-balanced group of organizers, a Green Deal should enhance diversity among participants to avoid encouraging only the usual or obvious organizations to participate. Attracting fresh, unfamiliar players can be challenging because Green Deal organizers tend to reach out to their own, existing network in the first place. In order to diversify the participants, organizers could advertise the existence of the Green Deal through various communication channels such as social media or newspapers. Moreover, it is advised to welcome both large players as well as smaller entities, such as SMEs. Larger players, on the one hand, can provide significant expertise and create major impact. Smaller organizations, on the other hand, might need more support due to their limited time and financial resources, making the support of the Green Deal even more valuable to them. In addition, it is believed that the collaboration between large organizations and SMEs within the Green Deal network can provide mutual benefits.

Table 31: Quotes regarding diversity both organizers and participants

Case	Quote
Circular Procurement	<p>Interviewee 2: "... I think a lot depends on the organizers. Whether you have the right pioneers at the table and whether they can commit to taking on the pioneers' role. Those [Green Deal organizers] should be representatives of your target group and they should be a good match for each other."</p> <p>Interviewee 2: "Putting more effort in creating diversity of participants [could improve the Green Deal instrument]."</p>
Sustainable Urban Logistics	<p>Interviewee 3: "We [organizers] used our own network to start the Green Deal and, therefore, we had the usual candidates within the Green Deal."</p> <p>Interviewee 3: "If you want to welcome new members that are big players, this is good because that allows you [the Green Deal] to have more impact. If they [big players] change something in their process, you get a bigger impact. They also have a lot of staff and a lot of expertise. Therefore, it might be easier for them to make time to do the transition. If you compare that to an SME, they usually do not have time to do everything and have less time for the transition. So, they [SMEs] especially need support from a Green Deal, such a service can be especially useful for them. However, the impact of those [smaller] members is less than of the bigger players. ... That is why it is important to have a variety of players. Also, a big company needs SMEs and vice versa."</p>

Find balance between an online and offline approach

There is a broad consensus that a combination of both online and physical meetings is ideal for Green Deals. Organizers should strive to balance these approaches. Physical meetings are essential for creating a strong network, as in-person interactions foster better personal connections and enable participants to discover opportunities for cooperation. Additionally, inspiring participants online is often more challenging. In-person events also make it harder for participants to 'hide' (e.g., by turning off their camera and/or microphone), providing more opportunity for less outspoken participants to be heard. Nevertheless, online gatherings should also be part of the Green Deal structure, due to their efficiency in terms of time management. Attending physical events often requires significant travel time, whereas a one-hour online meeting can be attended from home, making it more convenient and increasing the willingness of participants to attend.

Table 32: Quotes find balance between an online and offline approach

Case	Quote
Shared Mobility	Interviewee 1: "You have to get people to meet physically to create personal connections. The personal connections created were something positive in the Green Deal. ... Online, you achieve that much less. So, you have to be able to get together. Of course, you do not have to meet in-person every time. You can also organize certain things online. You have to find the right balance between online and physical."
Circular Procurement	Whitepaper: "To create an impactful learning trajectory, it is important to physically bring the participants together. This allows them to learn collectively, create a network, and find opportunities for cooperation."
Circular Construction	Interviewee 1: "If I were to do the Green Deal again, I would still go for a mix of offline and online: real events and digital events." Interviewee 1: "Some people cannot take a whole day or half a day off but can take an hour off, if they do not have to travel. That makes a world of difference. Otherwise, it is often not worth it. It often happens that a particular participant is interested and can have a valuable input but cannot commute. Then, the digital aspect makes a lot possible."
Sustainable Urban Logistics	Interviewee 4: "If something takes an hour, I think online is very good. But our themed events were often three to four hours, so an afternoon. ... And you cannot replace that [with an online gathering]. I have nothing against Teams. ... But specifically for what we wanted to do in the Green Deal: networking, events, speaking, interaction, I do not think that [meeting online] is good."

## **5 DISCUSSION**

This master's dissertation started by reviewing literature on the Flemish Green Deal instrument, sustainability transitions, system innovation, and actor engagement. This literature review allowed for the development of the Green Deal Performance framework, which was used throughout this research as a tool for analyzing the performance of the Flemish Green Deal instrument in the transition to a sustainable economy. In addition to developing this framework, the objective of this research was to evaluate what goals are achieved by the Flemish Green Deals and which factors explain achieving these goals. Furthermore, this research aimed to showcase how the Flemish Green Deal instrument can be improved. To further investigate these questions, case study research with six Flemish Green Deals was adopted.

Before discussing the conclusions related to the three research objectives, the validity of the core proposition of the Green Deal Performance framework needs to be reviewed, namely that the Flemish Green Deal is a systemic instrument that aims to enable the transition towards a sustainable economy.

Firstly, related to the **systemic character of the Flemish Green Deal instrument**, the findings indicate that Green Deals promote overarching change by focusing on a large variety of stakeholders, instead of focusing on isolated improvements within individual entities. For example, the data shows that less emphasis is placed on the (positive) actions of individual Green Deal participants, but rather on overarching improvements (i.e., system changes), resulting from all these projects together. Thus, the system, rather than the individual level, is given central attention. This aligns with the definition of systemic instruments by Wieczorek and Hekkert (2012) and supports our initial proposition that a Flemish Green Deal is indeed a systemic instrument. Furthermore, the findings suggest that all Green Deals enabled the formation of new connections, partnerships, and collaborations among Green Deal stakeholders (i.e., network establishment). This indicates their ability to bring organizations (i.e., Green Deal participants) together and stimulate these interdependent actors to operate more synergistically. The presence of this system formation characteristic in all six Green Deal cases serves as further evidence that the Flemish Green Deal instrument is indeed systemic (Wieczorek & Hekkert, 2012).

Secondly, the contention that the Flemish Green Deals aim to be a force in **the transition towards a sustainable economy** is supported by the presence of the three elements of sustainability (Vos, 2007) combined with the understanding that a sustainable economy is an economy that serves the needs of society in a sustainable manner (Jacob et al., 2019). Firstly, by driving businesses towards sustainability improvements in an economically responsible way, all researched Green Deals integrate both the economic and environmental dimension of sustainability. The relevance of the social pillar of

sustainability, however, appears less distinct in the analysis. Secondly, regarding the time scale of sustainability, the Green Deals adopt a long-term perspective, as they aim to protect future generations (e.g., greenhouse gas reduction, material reduction and reuse). Thirdly, the findings indicate multiple Green Deals were able to stimulate the creation or adaptation of laws and regulation (i.e., policy stimulation). Therefore, Green Deals have shown to work beyond mere compliance with current legislation, but rather take a proactive approach, and thus align with Vos's (2007) assertion that sustainability transcends current policy.

The first aim of implementing the Green Deal Performance framework was to evaluate what **Green Deal goals** are achieved by the Flemish Green Deals. This overview can be found in Table 5 in the Findings section. The findings show that every Flemish Green Deal was able to accomplish at least one Green Deal goal. In fact, every Green Deal achieved a minimum of four goals. Moreover, each Green Deal goal was achieved at least once over all researched Green Deals. It can, thus, be concluded that the Flemish Green Deal instrument has the ability to achieve each goal outlined in the framework. Because of the fact that these seven achieved Green Deal goals were determined by incorporating an academic framework on systemic instruments (Wieczorek & Hekkert, 2012) and on actor engagement for a circular and sustainable economy (Verleye et al., 2023), as well as the literature on sustainable economy, we can therefore conclude that the Flemish Green Deal instrument does have the ability to enable the transition towards a sustainable economy.

The second research aim was to investigate what internal and external factors shape the achievement of these goals. In total, **15 explanatory factors** (i.e., 13 internal factors and two external factors) were pinpointed. The overview of which factors positively or negatively influence which Green Deal goal(s) is given in Table 7 in the Findings section. When the findings indicate that a certain internal factor contributes to a given Green Deal goal for at least one Green Deal, this internal factor has indicated its ability to contribute to that goal. Therefore, Table 7 serves not only as an overview of past relations between internal explanatory factors and Green Deal goals, but can also be utilized as a tool for future decision-making. It can be noted that multiple internal factors are considered to contribute to each of the Green Deal goals, indicating that Green Deal organizers have the choice between a variety of methods to achieve them.

Besides the internal factors, two **external factors** were also determined based on the multi-level perspective (MLP) model of system innovation (Geels & Schot, 2007). Two conclusions related to this model can be made.

First of all, the findings support the proposition that Flemish Green Deals are **niches** as defined by Geels and Schot (2007). Various Green Deals enabled participants (i.e., committed actors) to learn together (i.e., knowledge enhancement) and gain practical experience through experimentation (i.e., capability development) in a protected environment. This aligns with Hoogma et al. (2002), stating that initiating experimental implementation projects is a common method for niche establishment. Furthermore, the Green Deal Circular Procurement even explicitly mentioned that the Green Deal served as a safe environment where one could conduct pilots in the best possible conditions.

Secondly, this research underscores the proposition of Geels and Schot (2007) that **the exogenous context as well as the incumbent (current) regime** have the ability to **influence niches**, because the findings show both factors have influenced the performance of the Flemish Green Deals (i.e., niches), both positively and negatively. In concrete, for each Flemish Green Deal investigated, except the Green Deal Circular Procurement, at least one current regime or landscape factor was present, influencing that Green Deal's performance. Thus, the inclusion of these two external factors was necessary to provide the broader context in which the Green Deals occurred.

The findings related to explanatory factors indicate a remarkable result. In concrete, the findings show that an internal factor, when present in multiple Green Deals, does not necessarily contribute to the exact same goals for each Green Deal. Two main explanations can be provided for this.

Firstly, the fact that recommendations could be made regarding the implementation of internal factors indicates that the way in which an internal factor is executed in practice, impacts this factor's ability to contribute to a given goal. Therefore, differences in **the manner of factor implementation** between Green Deals is considered to, at least partly, explain the inconsistency in the relationship between an internal factor and a goal across these Green Deals.

Secondly, the findings indicate that **external factors affect Green Deal goals both directly and indirectly** (i.e., by influencing an internal factor). For example, the COVID pandemic increased the awareness of participants regarding the importance of biodiversity and circular construction (i.e., direct impact). At the same time, the pandemic reduced network establishment because (a number of) plenary events could no longer take place (i.e., indirect impact). This influence of external factors on internal ones can be a second explanation for the complex relationship between internal factors and goals. The data did not allow to pinpoint any other explanations for the found complexity.

Due to this noteworthy finding, it should be emphasized that the mere observation that an internal factor contributes to a certain goal for one Green Deal, does not automatically guarantee the same result in another (future) Green Deal.

As the last step in the discussion related to the first and second research aim, the results of both are reviewed together, to determine whether there are any indications that the list of explanatory factors distilled from all acquired data is not exhaustive. In case a Green Deal has achieved a certain Green Deal goal, but no explanatory factors were found to be responsible for achieving this goal, this could potentially be a sign that an element with explanatory power is missing in the analysis. This, however, is not the case when comparing Table 5 and Table 7 of the Findings section. Therefore, there is, at this moment, no reason to believe that there are more internal or external factors responsible for the performance of the Flemish Green Deal instrument than currently detected.

Aligned with the third and final research objective, various factor-specific and general **recommendations** were formulated in the Findings section. Considering the factor-specific suggestions when implementing these internal factors in Green Deals is likely to increase their positive impact on the Green Deal goals. Additionally, by incorporating the general recommendations regarding the Green Deal instrument in the design and execution phase of future Green Deals, the Flemish Green Deal instrument is expected to come closer to reaching its full potential.

## **6 LIMITATIONS & FURTHER RESEARCH**

After writing this master's dissertation, a number of limitations and possible future research opportunities were distinguished.

First of all, the **strong reliance on** one type of informant (i.e., **Green Deal organizers**) is the most significant limitation of this research. Besides the lack of different perspectives, Green Deal organizers might overestimate the (positive) impact of their Green Deal. This bias may be further amplified because of retrospective sensemaking and impression management (Eisenhardt & Graebner, 2007). Future research could analyze a larger variety of perspectives, which might highlight potential biases and mitigate blind spots, resulting in a more comprehensive understanding of the Flemish Green Deal instrument. In concrete, Green Deal participants could potentially provide valuable insight on the performance of the Flemish Green Deal instrument and on recommendations for future improvement. Furthermore, the perspective of the general public as well as the Green Deal Counter is considered worth researching as well.

A second limitation of this research is the **limited number of Green Deals** analyzed. Therefore, this small number of cases may constrain the generalizability of the findings, making it challenging to draw broad conclusions about the Flemish Green Deal instrument as a whole. As a result, any conclusions derived from this study need to be approached with caution. Further research with a larger set of cases is necessary to validate these findings comprehensively.

Thirdly, this research found that the manner of factor implementation as well as external factors can influence the relationship between internal factors and Green Deal goals. However, it did not outline or explain the **true complexity** of this relationship. Future research could strive to determine how exactly these elements influence the internal factors' impact on Green Deal performance.

Fourthly, the framework development as well as the overall research were conducted in the **specific context** of the Green Deal instrument **in Flanders**, which potentially reduces the external validity of the results. Similar instruments in other countries or regions might be different, to some extent, in terms of instrument objectives, implementation mechanisms and stakeholder involvement. The extent to which the developed framework is generalizable to other regions could be subject to future research.

Fifthly, the impact of an explanatory factor on a Green Deal goal was **not measured quantitatively**. The researchers were only able to establish whether or not that factor contributed to a goal to some extent. Therefore, no conclusions could be made on which factors are most effective (among all



effective factors) for achieving a given goal. Future research could look into measuring the contribution of explanatory factors quantitatively, allowing for more effective improvement measures to be taken.

Finally, it is possible that the Flemish Green Deal instrument has evolved since the ending of the analyzed Green Deals. Ongoing or upcoming Green Deals might already have learned from their predecessors and adapted their approach accordingly. Therefore, because of this potential progression, the findings of this research may **not fully reflect the current state of the instrument**. Future research could examine more recent Green Deals as a way to acquire a more elaborate, up-to-date assessment of the instrument's performance.

## 7 REFERENCES

Aanpak | GreenDeals. (2021). Retrieved May 20, 2024, from <https://www.greendeals.nl/aanpak>

Adams, W. & George Washington University. (2015). Conducting Semi-Structured interviews. In *Handbook of Practical Program Evaluation*. <https://doi.org/10.1002/9781119171386.ch19>

Al-Thani, M. J., & Кочкодан, В. (2023). In search of Sustainable Economy Definition: A Qatari Perspective. *Sustainability*, 15(13), 10370. <https://doi.org/10.3390/su151310370>

Aşici, A. A., & Bünül, Z. (2012). Green New Deal: A Green Way out of the Crisis? *Environmental Policy and Governance*, 22(5), 295–306. <https://doi.org/10.1002/eet.1594>

Avelino, F., & Rotmans, J. (2009). Power in Transition: An interdisciplinary framework to study power in relation to structural change. *European Journal of Social Theory*, 12(4), 543–569. <https://doi.org/10.1177/1368431009349830>

Bergman, N., Haxeltine, A., Whitmarsh, L., Köhler, J., Schilperoord, M., & Rotmans, J. (2008). Modelling socio-technical transition patterns and pathways. *Journal of Artificial Societies and Social Simulation: an inter-disciplinary journal for the exploration and understanding of social processes by means of computer simulation*, 11(3), 1–32. Retrieved from <http://hdl.handle.net/1765/19247>

Bieseeman, H., & Kamas, F. (2019). Evaluatie van het Green Deal Instrument.

Circular Wallonia. (n.d.). *Green Deal achats circulaires*. Retrieved May 20, 2024, from <https://economiecirculaire.wallonie.be/fr/green-deal-achats-circulaires>

Departement Kanselarij en Buitenlandse Zaken. (n.d.). Vision 2050. *A long-term strategy for Flanders*. Retrieved May 19, 2024, from <https://www.vlaanderen.be/publicaties/vision-2050-a-long-term-strategy-for-flanders>

Departement Omgeving. (n.d.). *002 - Circulair aankopen*. Retrieved February 15, 2024, from <https://omgeving.vlaanderen.be/nl/002-circulair-aankopen>

Departement Omgeving. (n.d.). *006 - Circulair bouwen*. Retrieved February 15, 2024, from <https://omgeving.vlaanderen.be/nl/006-circulair-bouwen>

Departement Omgeving. (n.d.). *Alle Green Deals*. Retrieved February 15, 2024, from <https://omgeving.vlaanderen.be/nl/alle-green-deals>

Departement Omgeving. (n.d.). *Home Green Deals in Vlaanderen*. Retrieved February 15, 2024, from <https://omgeving.vlaanderen.be/nl/greendeal#:~:text=alle%20Green%20Deals-,Wat%20zijn%20Green%20Deals%3F,aan%20met%20de%20Vlaamse%20overheid.>

Departement Omgeving. (n.d.). *Wat zijn Green Deals?* Retrieved March 30, 2024, from <https://omgeving.vlaanderen.be/nl/wat-zijn-green-deals>

De Haan, J. (2007). Pillars of change: a theoretical framework for transition models. In ESEE 2007 Conference Integrating Natural and Social Sciences for Sustainability, Leipzig

De Haan, F. J., & Rotmans, J. (2018). A proposed theoretical framework for actors in Transformative change. *Technological Forecasting and Social Change*, 128, 275–286. <https://doi.org/10.1016/j.techfore.2017.12.017>

EEA. (2015). The European environment — state and outlook 2015: synthesis report. *European Environment Agency, Copenhagen*. <https://www.kowi.de/Portaldata/2/Resources/horizon2020/coop/SOER-Synthesis-2015-EN.pdf>

Elzen, B., Geels, F. W., & Green, K. (2004). System Innovation and the Transition to Sustainability - Theory, Evidence and Policy. *Edward Elgar*. <https://doi.org/10.4337/9781845423421>

Fuenfschilling, L. (2019). An institutional perspective on sustainability transitions. ResearchGate. [https://www.researchgate.net/publication/335827086\\_An\\_institutional\\_perspective\\_on\\_sustainability\\_transitions](https://www.researchgate.net/publication/335827086_An_institutional_perspective_on_sustainability_transitions)

Fuenfschilling, L., & Truffer, B. (2014). The structuration of socio-technical regimes—Conceptual foundations from institutional theory. *Research Policy*, 43(4), 772–791. <https://doi.org/10.1016/j.respol.2013.10.010>

Galvin, R., & Healy, N. (2020). The Green New Deal in the United States: What it is and how to pay for it. *Energy Research & Social Science*, 67, 101529. <https://doi.org/10.1016/j.erss.2020.101529>

Gaziulusoy, İ. (2010). System Innovation for Sustainability: A scenario method and a workshop process for product development teams. <https://researchspace.auckland.ac.nz/handle/2292/6106>

Geels, F. W. (2002). Technological transitions as evolutionary reconfiguration processes: a multi-level perspective and a case-study. *Research Policy*, 31(8–9), 1257–1274. [https://doi.org/10.1016/s0048-7333\(02\)00062-8](https://doi.org/10.1016/s0048-7333(02)00062-8)

Geels, F. W. (2004). From sectoral systems of innovation to socio-technical systems. *Research Policy*, 33(6–7), 897–920. <https://doi.org/10.1016/j.respol.2004.01.015>

Geels, F. W. (2005). The Dynamics of Transitions in Socio-technical Systems: A multi-level analysis of the transition pathway from horse-drawn carriages to automobiles (1860–1930). *Technology Analysis & Strategic Management*, 17(4), 445–476. <https://doi.org/10.1080/09537320500357319>

Geels, F. W. (2006). Co-evolutionary and multi-level dynamics in transitions: the transformation of aviation systems and the shift from propeller to turbojet (1930–1970). *Technovation*, 26(9), 999–1016. <https://doi.org/10.1016/j.technovation.2005.08.010>

Geels, F. W. (2011). The multi-level perspective on sustainability transitions: Responses to seven criticisms. *Environmental Innovation And Societal Transitions*, 1(1), 24–40. <https://doi.org/10.1016/j.eist.2011.02.002>

Geels, F. W. (2018). Disruption and low-carbon system transformation: Progress and new challenges in socio-technical Transitions Research and the Multi-Level Perspective. *Energy research and social science*, 37, 224–231. <https://doi.org/10.1016/j.erss.2017.10.010>

Geels, F. W., & Schot, J. J. (2007). Typology of sociotechnical transition pathways. *Research Policy*, 36(3), 399–417. <https://doi.org/10.1016/j.respol.2007.01.003>

Geels, F. W., Sovacool, B. K., Schwanen, T., & Sorrell, S. (2017). The Socio-Technical dynamics of Low-Carbon transitions. *Joule*, 1(3), 463–479. <https://doi.org/10.1016/j.joule.2017.09.018>

Geels, F., Turnheim, B., Asquith, M., Kern, F., Kivimaa, P., Matti, C., Veenhoff, S., Frantzeskaki, N., & Wittmayer, J. (2019). Sustainability transitions: policy and practice. <https://hal.science/hal-04346590>

Giganti, P., & Falcone, P. M. (2022). Strategic Niche Management for Sustainability: A Systematic Literature Review. *Sustainability*, 14(3), 1680. <https://doi.org/10.3390/su14031680>

Goldkuhl, G., & Cronholm, S. (2010). Adding Theoretical Grounding to Grounded Theory: Toward Multi-Grounded Theory. *International Journal of Qualitative Methods*, 9(2), 187–205.  
<https://doi.org/10.1177/160940691000900205>

*Green Deal gids*. (2021). Retrieved May 19, 2024, from  
<https://omgeving.vlaanderen.be/nl/deelnemen/green-deal-gids-hoe-begin-je-een-nieuwe-green-deal>.

Hallin, A., Karrbom-Gustavsson, T., & Dobers, P. (2021). Transition towards and of sustainability—Understanding sustainability as performative. *Business Strategy and the Environment*, 30(4), 1948–1957. <https://doi.org/10.1002/bse.2726>

Hoogma, R., Kemp, R., Schot, J., & Truffer, B. (2002). Experimenting for sustainable transport. <https://doi.org/10.4324/9780203994061>

Intergovernmental Panel on Climate Change. (2023). *Climate Report 2023 Synthesis Report*.

Intezari, A. (2015). Integrating Wisdom and Sustainability: Dealing with Instability. *Business Strategy and the Environment*, 24(7), 617–627. <https://doi.org/10.1002/bse.1892>

Jacob, K., Guske, A., Antoni-Komar, I., Funcke, S., Gruchmann, T., Kny, J., Naber, E., Ruppert-Winkel, C., Sauer, P. C., Stumpf, K. H., & Volk, R. (2019). Governance for the sustainable economy: Institutional innovation from the bottom up? *Gaia*, 28(1), 204–209.  
<https://doi.org/10.14512/gaia.28.s1.6>

Johnston, P., Everard, M., Santillo, D., & Robert, K.-H. (2007). Reclaiming the definition of sustainability. *Environmental Science and Pollution Research International*, 14, 60–66.  
<http://dx.doi.org/10.1065/espr2007.01.375>

Kemp, R., Schot, J. J., & Hoogma, R. (1998). Regime shifts to sustainability through processes of niche formation: the approach of strategic niche management. *Technology Analysis & Strategic Management*, 10(2), 175–198. <https://doi.org/10.1080/09537329808524310>

Kirchherr, J., Reike, D., & Hekkert, M. P. (2017). Conceptualizing the circular economy: An analysis of 114 definitions. *Resources, Conservation And Recycling*, 127, 221–232.  
<https://doi.org/10.1016/j.resconrec.2017.09.005>

- Könnölä, T., & Unruh, G. C. (2007). Really changing the course: the limitations of environmental management systems for innovation. *Business Strategy and The Environment*, 16(8), 525–537.
- Korhonen, J., Honkasalo, A., & Seppälä, J. (2018). Circular Economy: The Concept and its Limitations. *Ecological Economics*, 143, 37–46. <https://doi.org/10.1016/j.ecolecon.2017.06.041>
- Kruja, A. (2013). Sustainable economic development, a necessity of the 21st century. *Mediterranean Journal of Social Sciences* (Online). <https://doi.org/10.5901/mjss.2013.v4n10p93>
- Lahtinen, S., & Yrjölä, M. (2019). Managing sustainability transformations: A managerial framing approach. *Journal of Cleaner Production*, 223, 815–825. <https://doi.org/10.1016/j.jclepro.2019.03.190>
- Loorbach, D., Bakel, J., Whiteman, G., & Rotmans, J. (2009). Business Strategies for Transitions towards Sustainable Systems. *Business Strategy and The Environment*, n/a. <https://doi.org/10.1002/bse.645>
- Lorek, S., & Spangenberg, J. H. (2014). Sustainable consumption within a sustainable economy – beyond green growth and green economies. *Journal Of Cleaner Production*, 63, 33–44. <https://doi.org/10.1016/j.jclepro.2013.08.045>
- Midgley, G., & Lindhult, E. (2021). A Systems Perspective on Systemic Innovation. *Systems research and behavioral science*, 38(5), 635–670. <https://doi.org/10.1002/sres.2819>
- Роледерс, В., Орикхова, Т., & Захариева, Г. (2022). Circular Economy as a Model of Achieving Sustainable Development. *Problemy Ekorozwoju*, 17(2), 178–185. <https://doi.org/10.35784/pe.2022.2.19>
- Professionals - Leefmilieu Brussel. (2023). *Green Deal emissiearme stadslogistiek*. Retrieved from May 21, 2024, from <https://leefmilieu.brussels/pro/onze-acties/projecten-en-resultaten/green-deal-emissiearme-stadslogistiek>
- Rotmans, J. (2005). Societal Innovation: Between Dream and Reality Lies Complexity. Social Science Research Network. <https://doi.org/10.2139/ssrn.878564>

Schot, J. J. (1998). The usefulness of evolutionary models for explaining innovation. The case of the Netherlands in the nineteenth century. *History And Technology*, 14(3), 173–200.

<https://doi.org/10.1080/07341519808581928>

Smith, A., & Raven, R. (2012). What is protective space? Reconsidering niches in transitions to sustainability. *Research Policy*, 41(6), 1025–1036. <https://doi.org/10.1016/j.respol.2011.12.012>

Smits, R., & Kuhlmann, S. (2004). The rise of systemic instruments in innovation policy. *International Journal Of Foresight And Innovation Policy*, 1(1/2), 4. <https://doi.org/10.1504/ijfip.2004.004621>

Smol, M. (2022). Is the Green Deal a global strategy? Revision of the Green Deal definitions, strategies and importance in post-COVID recovery plans in various regions of the world. *Energy Policy*, 169, 113152. <https://doi.org/10.1016/j.enpol.2022.113152>

Stoica, G., & Stoian, M. (2022). Durability, circularity and sustainability in the food market – bibliometric analysis. *Proceedings Of The . . . International Conference on Business Excellence*, 16(1), 456–465. <https://doi.org/10.2478/picbe-2022-0045>

Stucki, M., Jattke, M., Berr, M., Desing, H., Green, A., Hellweg, S., Laurenti, R., Meglin, R., Muir, K., Pedolin, D., Shinde, R., Welz, T., & Keller, R. (2021). How life cycle–based science and practice support the transition towards a sustainable economy. *the International Journal of Life Cycle Assessment*, 26(5), 1062–1069. <https://doi.org/10.1007/s11367-021-01894-1>

Swim, J., Clayton, S., Doherty, T., Gifford, R., Howard, G., Reser, J., & Weber, E., (2011). Psychology and Global Climate Change: Addressing a Multi-Faceted Phenomenon and Set of Challenges. A Report by the American Psychological Association’s Task Force on the Interface between Psychology and Global Climate Change.

Udo, V. (2011). Human Progress towards Equitable Sustainable Development – Part II: Empirical Exploration. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1967027](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1967027)

Vandenbroucke, P. (2012). Working with Wicked Problems.

Van de Poel, I. (2000). On the role of outsiders in technical development. *Technology Analysis & Strategic Management*, 12 (3), 383– 397.

Van Mierlo, B., Leeuwis, C., Smits, R., & Woolthuis, R. K. (2010). Learning towards System Innovation: Evaluating a Systemic instrument. *Technological Forecasting and Social Change*, 77(2), 318–334. <https://doi.org/10.1016/j.techfore.2009.08.004>

Verleye, K., De Keyser, A., Raassens, N., Alblas, A., Lit, F. C., & Huijben, J. (2023). Pushing forward the transition to a circular economy by adopting an actor engagement lens. *Journal of Service Research*, 27(1), 69–88. <https://doi.org/10.1177/10946705231175937>

Vos, R. O. (2007). Defining sustainability: a conceptual orientation. *Journal of Chemical Technology and Biotechnology*, 82(4), 334–339. <https://doi.org/10.1002/jctb.1675>

WCED-World commission on environment and development. (1987). *Our Common Future*. New York: Oxford University Press.

Wieczorek, A., & Hekkert, M. P. (2012). Systemic instruments for systemic innovation problems: A framework for policymakers and innovation scholars. *Science & Public Policy (Print)*, 39(1), 74–87. <https://doi.org/10.1093/scipol/scr008>

Yin, R. K. (2018). *Case Study Research and Applications: Design and Methods*. <http://cds.cern.ch/record/2634179>



## 8 APPENDIX

### APPENDIX A: INTERVIEW GUIDE AND SURVEY

#### A.1 Interview guide

Zoals in ons mailtje reeds gezegd doen wij voor onze masterproef onderzoek naar het Vlaamse Green Deal instrument waarbij we verschillende trekkers bevragen en ook alle beschikbare informatie omtrent de afgewerkte Green Deals bestuderen.

1. Hoe omschrijft u uw rol in de Green Deal? Wat was uw taak?
2. Wat was het hoofddoel van de Green Deal? Wat wou deze Green Deal absoluut bereiken?
  - a. Waren er nog bij-doelen in deze Green Deal?
3. Wat waren de kernactiviteiten om het hoofddoel van de Green Deal te bereiken?
  - a. Vond u dat deze activiteiten succesvol zijn?
  - b. Wat waren de activiteiten om de eventuele bij-doelen te bereiken?
    - i. Vond u deze activiteiten succesvol?

Note vraag 3: Indien bepaalde activiteiten in het oog sprongen tijdens de documentanalyse – zoals websites en werkgroepen – dan vroegen we naar de rol van deze activiteiten en peilden we naar het succes van deze activiteit.

4. Als u de Green Deal een score moet geven op 100, waarbij een 0/100 een absolute mislukking is en 100/100 extreem succesvol, hoeveel zou u de Green Deal dan geven?
  - a. Waarom geeft u deze score (Deze vraag werd meerdere malen herhaald.)

Note vraag 4: Indien er geen 100 op 100 werd gegeven, werd ook nagegaan welke zaken ervoor zorgden dat die 100 op 100 niet werd behaald.

5. Welke concrete duurzaamheidsverbeteringen werden gerealiseerd via de Green Deal?
  - a. Kan u inschatten in welke mate er nog duurzaamheidsverbeteringen hebben plaatsgevonden bij de participanten nadat de Green Deal was afgewerkt, die voortvloeien uit de deelname aan de Green Deal?
    - i. Hoe groot was deze impact?

Uitleg: Nu zouden we graag uitzoomen en kijken naar de invloed van externe factoren op het succes van de Green Deal.

6. Hoe evalueert u de timing van de Green Deal?
7. Welke externe factoren hebben aan de start van de Green Deal het succes vergemakkelijkt?
8. Welke externe factoren hebben aan de start van de Green Deal het succes bemoeilijkt?
9. Welke externe factoren hebben tijdens de Green Deal het succes vergemakkelijkt?
10. Welke externe factoren hebben tijdens de Green Deal het succes bemoeilijkt?

Note vraag 7-10: Indien de geïnterviewde niet direct op iets kon komen, werd gevraagd naar technologie, regelgeving, bewustzijn in de markt,...

11. Zijn er zaken waar de Green Deal het nog beter had kunnen doen? Zijn er verbeterpunten?
12. Heeft u tips/ideeën om het Green Deal instrument te verbeteren en/of meer impactvol te maken naar de toekomst toe?
13. Voelde u een nood voor een vervolg van de Green Deal?

- a. Voelden de participanten een nood voor een vervolg van de Green Deal?  
14. Zijn er zaken die u nog wilt meegeven die nog niet zijn gezegd?

## A.2 Template survey

### Impact Green Deals

Inleiding In 2017 ging de eerste Vlaamse Green Deal van start. Momenteel zijn er reeds 6 Green Deals afgerond en 12 in uitvoering. De Vlaamse overheid oordeelt dat het een geschikt moment is om het Green Deal instrument te evalueren. Meer specifiek zal het Vlaams Planbureau voor Omgeving (VPO), een afdeling binnen het Departement Omgeving, een evaluatie uitvoeren.

Als masterstudenten binnen de opleiding Handelsingenieur aan Universiteit Gent nemen wij – Jolien Van Buyten en Dries Breemeersch – in het kader van onze masterproef onder begeleiding van Prof. Dr. Katrien Verleye, de bevraging van de trekkers van de afgeronde Green Deals op ons. Het concrete doel van ons onderzoek is om inzicht te krijgen in de factoren die bijdragen aan het succes van de Green Deals.

Alle informatie omtrent de studie is op deze link te vinden. Indien u beslist heeft om deel te nemen aan ons onderzoek, dan kan u hieronder uw geïnformeerde toestemming geven door 8 maal “ja” aan te duiden.

Q2 Gelieve het juiste vakje aan te duiden.

ja (1)    nee (2)

De informatie over het onderzoek heb ik gelezen en begrepen. Ik heb de gelegenheid gehad om de informatie en mijn deelname te overwegen en vragen te stellen die naar mijn tevredenheid werden beantwoord. (1)

Ik begrijp dat mijn deelname aan dit onderzoek geheel vrijwillig is en dat ik mijn deelname op elk moment kan stopzetten zonder dat ik hiervoor een reden moet opgeven en zonder dat dit op enige wijze een invloed zal hebben op mijn verdere relatie met de onderzoekers. (2)

Ik begrijp dat ik geen financiële compensatie zal ontvangen voor mijn deelname aan dit onderzoek. (3)

Ik geef toestemming aan de onderzoekers om het interview op te nemen (audio-opname). (4)

Ik begrijp dat de (persoons)gegevens die worden verzameld gedurende deze studie zullen worden verwerkt in overeenstemming met de wettelijke bepalingen en de informatie die mij werd verstrekt. (5)

Ik ben ervan op de hoogte dat ik een kopie van het interviewtranscript en de samenvatting van de onderzoeksresultaten kan krijgen. (6)

Ik geef hierbij toestemming aan de onderzoekers om de onderzoeksresultaten op basis van de informatie die ik verstrek, te publiceren in wetenschappelijke tijdschriften en te bespreken tijdens wetenschappelijke bijeenkomsten op voorwaarde dat mijn identiteit daarbij niet achterhaald kan worden. (7)

Ik stem ermee in deel te nemen aan het onderzoek. (8)      o                      o

Skip To: End of Survey If Gelieve het juiste vakje aan te duiden. = nee

Q3 Voor welke Green Deal was u 1 van de trekkers/partners?

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Q4 Welke organisatie binnen deze Green Deal vertegenwoordigt u?

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Q5 Hoeveel participanten waren er aan het begin van de Green Deal? (één organisatie wordt gezien als één participant en trekkers worden niet gezien als participanten)

---

Q6 Hoeveel nieuwe participanten hebben de Green Deal in een later stadium vervoegd? (één organisatie wordt gezien als één participant en de trekkers worden niet gezien als participanten)

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Q7 Welke kanalen werden ingezet om mensen en organisaties aan te moedigen om deel te nemen aan de Green Deal? Gelieve 100 punten te verdelen over onderstaande kanalen.

Nieuwsbrieven : \_\_\_\_\_ (1)

Websites : \_\_\_\_\_ (2)

Workshops : \_\_\_\_\_ (3)

Sociale media : \_\_\_\_\_ (4)

E-mail : \_\_\_\_\_ (5)

Persoonlijke communicatie : \_\_\_\_\_ (6)

Events : \_\_\_\_\_ (7)

Andere: : \_\_\_\_\_ (8)

Total : \_\_\_\_\_

Q8 Geef aan in welke mate volgende praktijken werden ingezet om deelnemers aan te moedigen om deel te nemen aan de Green Deal (1 = helemaal niet; 10 = in zeer grote mate)

0      1      2      3      4      5      6      7      8      9      10

Wijzen op de economische voordelen van de Green Deal. ( )

Signaleren van de ecologische voordelen van de Green Deal. ( )

Signaleren van de sociale voordelen van de Green Deal. ()

Wijzen op maatregelen die de Green Deal financieel aantrekkelijk maken. ()

Wijzen op maatregelen die de Green Deal praktisch aantrekkelijk maken. ()

Q9 Geef aan in welke mate u akkoord gaat met de volgende stellingen (1 = helemaal niet akkoord; 10 = helemaal akkoord):

0      1      2      3      4      5      6      7      8      9      10

De trekkers/partners hebben vaak extern gecommuniceerd over de Green Deal. ()

De deelnemers hebben vaak extern gecommuniceerd over de Green Deal. ()

Q10 Welke kanalen werden ingezet om extern te communiceren over de Green Deal? Gelieve 100 punten te verdelen over onderstaande kanalen.

Sociale media : \_\_\_\_\_ (1)

E-mail : \_\_\_\_\_ (2)

Nieuwsbrieven : \_\_\_\_\_ (3)

Websites : \_\_\_\_\_ (4)

Events : \_\_\_\_\_ (5)

Persoonlijke communicatie : \_\_\_\_\_ (6)

Andere: : \_\_\_\_\_ (7)

Total : \_\_\_\_\_

Q11 Geef aan in welke mate volgende praktijken werden ingezet tijdens de Green Deal (1 = helemaal niet; 10 = in zeer grote mate)

0      1      2      3      4      5      6      7      8      9      10

Het overbrengen van kennis naar de Green Deal deelnemers. ()

Het aanreiken van bruikbare tools aan de Green Deal deelnemers. ()

Het opstarten van experimenten/projecten met de Green Deal deelnemers. ()

Het aanreiken van financiële ondersteuning voor de deelnemers om de beoogde doelstellingen te realiseren. ()

Het genereren van nieuwe kennis en tools. ()

Deelnemers in de Green Deal met elkaar in contact brengen. ()

Het organiseren van evenementen met aandacht voor netwerking. ()

Het formuleren van beleidsaanbevelingen. ()

Het streven naar aanpassingen van de wetgeving. ()

Het wijzen op de economische voordelen van de Green Deal. ()

Het signaleren van de ecologische voordelen van de Green Deal. ()

Het signaleren van de sociale voordelen van de Green Deal. ()

Het wijzen op maatregelen die de Green Deal financieel aantrekkelijk maken. ()

Het wijzen op maatregelen die de Green Deal praktisch aantrekkelijk maken. ()

Q12 Geef aan in welke mate u akkoord gaat met de volgende stellingen (1 = helemaal niet akkoord; 10 = helemaal akkoord):

0      1      2      3      4      5      6      7      8      9      10

Het aantal deelnemers dat tijdens de Green Deal maatregelen hebben genomen/duurzame veranderingen hebben doorgevoerd, is hoog. ()

Het aantal deelnemers dat na de Green Deal maatregelen hebben genomen/duurzame veranderingen hebben doorgevoerd, is hoog. ()

Het aantal deelnemers dat tijdens de Green Deal hun bedrijfsmodel duurzamer hebben gemaakt, is hoog. ()

Het aantal deelnemers dat na de Green Deal hun bedrijfsmodel duurzamer hebben gemaakt, is hoog. ()

Q13 Heeft u nog bijkomende opmerkingen of vragen?

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## APPENDIX B: SECONDARY DATA SOURCES

### B.1 Shared Mobility

Start Report: Vlaamse Overheid. (2017). *Green Deal 001 Gedeelde mobiliteit*.  
[https://omgeving.vlaanderen.be/sites/default/files/2021-11/GREENDEALS\\_gedeelde-mobiliteit\\_gehandtekend.pdf](https://omgeving.vlaanderen.be/sites/default/files/2021-11/GREENDEALS_gedeelde-mobiliteit_gehandtekend.pdf)

Intermediate Report 2018: Green Deal Gedeelde Mobiliteit. (n.d.). *Voortgangsrapport 2017 – 2018 Green Deal Gedeelde mobiliteit*. [https://omgeving.vlaanderen.be/sites/default/files/2021-11/voortgangsrapport%20Green%20Deal%20gedeelde%20mobiliteit\\_2017-2018.pdf](https://omgeving.vlaanderen.be/sites/default/files/2021-11/voortgangsrapport%20Green%20Deal%20gedeelde%20mobiliteit_2017-2018.pdf)

Intermediate Report 2019: Green Deal Gedeelde Mobiliteit. (2019). *Rapport 2019 Green Deal Gedeelde Mobiliteit*. <https://omgeving.vlaanderen.be/sites/default/files/2021-11/Rapportage%20Green%20Deal%20Gedeelde%20Mobiliteit%202019%20ter%20publicatie.pdf>

End Report: *Eindrapport Green Deal 001 Gedeelde Mobiliteit*. (n.d.).  
[https://omgeving.vlaanderen.be/sites/default/files/2022-06/Eindrapport\\_Green\\_Deal%20Gedeelde%20Mobiliteit.pdf](https://omgeving.vlaanderen.be/sites/default/files/2022-06/Eindrapport_Green_Deal%20Gedeelde%20Mobiliteit.pdf)

Interview VPO 1: *Interview Organizer*. (2019).

Interview VPO 6: *Interview Organizer*. (2019).

Interview VPO 7: *Interview Participant*. (2019).

Website 1: Departement Omgeving. (n.d.). *001 - Gedeelde mobiliteit*.  
<https://omgeving.vlaanderen.be/nl/001-gedeelde-mobiliteit>

Website 2: Green Deal Gedeelde Mobiliteit. (n.d.). *Green Deal Gedeelde Mobiliteit*.  
<https://gedeedemobiliteit.be/>

### B.2 Circular Procurement

Start Report: Schauvliege, J., Vlaanderen Circulair, The Shift, Bond Beter Leefmilieu Vlaanderen vzw, & Vereniging van Vlaamse Steden en Gemeenten vzw. (2017). *Green Deal circulair aankopen*.

Intermediate Report: Vlaanderen Circulair, The Shift, Vlaamse Vereniging voor Steden en Gemeenten, & Bond Beter Leefmilieu Vlaanderen. (n.d.). *Voortgangsrapport 2017 - 2018 Green Deal Circulair aankopen*.

End Report: Vlaanderen Circulair, The Shift, Vlaamse Vereniging voor Steden en Gemeenten, Bond Beter Leefmilieu, & Pieters, M. (2019). *Green Deal circulair aankopen eindrapport traject*.

Whitepaper: Circular Flanders, European Regional Development Fund, & OVAM. (n.d.). *How To Run a Community of Practice on Circular Procurement*. <https://aankopen.vlaanderen-circulair.be/src/Frontend/Files/userfiles/files/VC%20->

%20How%20to%20run%20a%20Community%20of%20practice%20on%20Circular%20Procurement.pdf

Content Report: Vlaanderen Circulair, The Shift, Vlaamse Vereniging voor Steden en Gemeenten, & Bond Beter Leefmilieu Vlaanderen. (n.d.). *Green Deal circulair aankopen*.

Process Report: The global picture. (2020). *Eindrapport Green Deal Circulair Aankopen*.

Interview VPO 3: *Interview Organizer*. (2019).

Interview VPO 4: *Interview Participant*. (2019).

Website 1: Departement Omgeving. (n.d.). 002 - *Circulair aankopen*.  
<https://omgeving.vlaanderen.be/nl/002-circulair-aankopen>

Website 2: Vlaanderen Circulair. (n.d.). *Green Deal circulair aankopen*. <https://www.vlaanderen-circulair.be/nl/onze-projecten/detail/green-deal-circulair-aankopen>

### **B.3 Companies and Biodiversity**

Start Report: Vlaamse Overheid. (2018). *Green Deal Bedrijven en Biodiversiteit*.  
[https://omgeving.vlaanderen.be/sites/default/files/2021-11/Green%20Deal%20Bedrijven%20en%20Biodiversiteit\\_finaal\\_20092018.pdf](https://omgeving.vlaanderen.be/sites/default/files/2021-11/Green%20Deal%20Bedrijven%20en%20Biodiversiteit_finaal_20092018.pdf)

Intermediate Report: Departement Omgeving. (2020). *Voortgangsrapport Green Deal Bedrijven En Biodiversiteit*. [https://omgeving.vlaanderen.be/sites/default/files/2021-11/GDB\\_voortgangsrapport\\_def.pdf](https://omgeving.vlaanderen.be/sites/default/files/2021-11/GDB_voortgangsrapport_def.pdf)

End Presentation: Willo, N., & Geschier, B. (2021, October 21). *Slotevenement overzicht en resultaten* [Slide show].

Interview VPO 1: *Interview Organizer*. (2019).

Interview VPO 2: *Interview Organizer*. (2019).

Website 1: Departement Omgeving. (n.d.). 004 - *Bedrijven en biodiversiteit*.  
<https://omgeving.vlaanderen.be/nl/004-bedrijven-en-biodiversiteit>

### **B.4 Domestic Wood Heating**

Start Report: Vlaamse Overheid. (2018). *Green Deal Huishoudelijke houtverwarming*.  
[https://omgeving.vlaanderen.be/sites/default/files/2021-11/Green%20Deal%20Houtverwarming-document\\_def.pdf](https://omgeving.vlaanderen.be/sites/default/files/2021-11/Green%20Deal%20Houtverwarming-document_def.pdf)

Intermediate Report: Green Deal. (2020). *Tussentijdse evaluatie Green Deal Huishoudelijke houtverwarming*. <https://omgeving.vlaanderen.be/sites/default/files/2021-11/Tussentijdse%20evaluatie%20van%20de%20Green%20Deal%20HH%202020.pdf>

End Report: Green Deal. (2022). *Eindevaluatie Green Deal Huishoudelijke houtverwarming*. <https://omgeving.vlaanderen.be/sites/default/files/2022-12/Eindevaluatie%20Green%20Deal%20huishoudelijke%20houtverwarming.pdf>

Interview VPO 5: *Interview Organizer*. (2019).

Website 1: Departement Omgeving. (n.d.). *005 - Huishoudelijke houtverwarming*. <https://omgeving.vlaanderen.be/nl/005-huishoudelijke-houtverwarming>

Website 2: Vlaamse Milieumaatschappij. (n.d.). *Hout het gezond*. <https://www.vmm.be/lucht/lokaal/hout-het-gezond>

## **B.5 Circular Construction**

Start Report: Vlaanderen Circulair, OVAM, & Vlaamse Confederatie Bouw. (2019). *Engagementsverklaring Green Deal Circulair Bouwen*. <https://bouwen.vlaanderen-circulair.be/src/Frontend/Files/userfiles/files/GDCB%20engagementsverklaring.pdf>

End Report: Vlaanderen Circulair, OVAM, Embuild Vlaanderen, & Vlaanderen. (2023). *Eindrapport Green Deal Circular Bouwen*.

Interview VPO 3: *Interview Organizer*. (2019).

Website 1: Departement Omgeving. (n.d.). *006 - Circulair bouwen*. <https://omgeving.vlaanderen.be/nl/006-circulair-bouwen>

Website 2: Vlaanderen Circulair. (n.d.). *Green Deal Circulair Bouwen*. <https://bouwen.vlaanderen-circulair.be/nl/onze-aanpak/green-deal>

## **B.6 Sustainable Urban Logistics**

Start Report: Vlaamse Overheid. (2019). *Green Deal duurzame stedelijke logistiek*.

Intermediate Report 2020: *Green Deal duurzame stedelijke logistiek*. (2020).

Intermediate Report 2021: *Green Deal duurzame stedelijke logistiek*. (2021).

Intermediate Report 2022: *Green Deal duurzame stedelijke logistiek*. (2022).

End Report: *Eindrapport Green Deal duurzame stedelijke logistiek*. (2023).

Inspiration Guide: Koning Boudewijnstichting, & the Shift. (n.d.). *Inspiratiegids Duurzame Stedelijke Logistiek*. <https://drive.google.com/file/d/1rebgMYLUicGujeWQGTxgA2xGRXgkOVIt/view>

Website 1: Departement Omgeving. (n.d.). *007 - Duurzame stedelijke logistiek*. <https://omgeving.vlaanderen.be/nl/007-duurzame-stedelijke-logistiek>



## APPENDIX C: Awareness creation

**Table C.1 Performance awareness creation**

Awareness creation		
Shared Mobility	+	<p>Interviewee 2: "I think the Green Deal has increased awareness around the topic of shared mobility mainly for the wider society because the people who signed the Green Deal were already convinced. It was not the intention of the Green Deal to convince the participants of the usefulness of the topic."</p> <p>Interviewee 2: "I think the Green Deal has sparked a kind of acceleration in shared mobility and has raised awareness."</p> <p>Interviewee 2: "The Green Deal has helped make shared mobility more visible."</p> <p>Interviewee 3: "More awareness has been created, ..."</p> <p>Interviewee 3: "I do believe that, with the Green Deal, we did accelerate the social process that was going on around shared mobility, despite COVID. ... So, we did contribute with the Green Deal to getting the curve steeper."</p> <p>End Report: "The mere existence of a Green Deal focusing on shared mobility inevitably led to increased awareness and attention surrounding shared mobility in Flanders and among all participating organizations. This increased awareness resulted in a general increase in efforts to promote shared mobility. Thanks to the Green Deal, the awareness of the benefits and opportunities around shared mobility was created faster."</p> <p>End Report: "It [The Green Deal] was also a useful tool for signatories ..., to create visibility for themselves and the theme [of the Green Deal]."</p> <p>Survey respondent 2: 6/10 signaling economic benefits, 6/10 signaling ecological benefits, 6/10 signaling social benefits</p> <p>Survey respondent 3: 6/10 signaling economic benefits, 4/10 signaling ecological benefits, 5/10 signaling social benefits</p>
	N	<p>Intermediate Report 2019: "[In 2019], there is also room for improvement. Although the Green Deal creates support and provides visibility, the Green Deal Shared Mobility still remained too much in the shadows, according to some respondents. They hoped to find an instrument through the Green Deal that gave even greater publicity to the theme of shared mobility."</p> <p>Survey respondent 1: 2/10 signaling economic benefits, 3/10 signaling ecological benefits, 0/10 signaling social benefits</p>
Circular Procurement	+	<p>Interviewee 1: "I think, in totality, it [the Green Deal] did contribute a lot to the awareness about and visibility of the circular economy. ... I think this [spotlight] might have been the most important contribution, rather than those two or three small procurement projects."</p> <p>Interviewee 2: "Thanks to the Green Deal, our target group pays more attention to the topic of circular procurement... At the time [of the end of the Green Deal], I certainly found that positive and evaluated it positively. I thought that [the Green Deal] was a good tool to work with."</p> <p>Process Report: "Many suppliers have circular elements in their offerings but don't communicate about them, let alone show them off. The Green Deal Circular Procurement and the Buyer Meer Supplier events, have raised awareness that focusing more on circular proposition and communicating more about it, can create extra turnover and attention."</p>

		<p>Survey respondent 1: 5/10 signaling economic benefits, 8/10 signaling ecological benefits, 4/10 signaling social benefits</p> <p>Survey respondent 2: 4/10 signaling economic benefits, 8/10 signaling ecological benefits, 4/10 signaling social benefits</p>
Companies and Biodiversity	+	<p>Interviewee 1: "A lot of awareness was created."</p> <p>Interviewee 2: "When we started the Green Deal, there was not much attention for biodiversity among companies. Gradually, this increased through the Green Deal. More and more attention was paid to it. Furthermore, it wasn't just the big companies that were interested either, but also the smaller ones."</p> <p>Interviewee 2: "There was greater support [for biodiversity on business parks] because of this Green Deal, it created more awareness."</p> <p>Interviewee 2: "I am proud that we started the Green Deal, and I am proud of what we have set in motion ... it [the Green Deal] is not about 1 specific action but more about the awareness [regarding the importance of biodiversity in business parks] and the feeling that we have set something in motion."</p> <p>Survey respondent 1: 7/10 signaling economic benefits, 8/10 signaling ecological benefits, 7/10 signaling social benefits</p> <p>Survey respondent 2: 5/10 signaling economic benefits, 10/10 signaling ecological benefits, 8/10 signaling social benefits</p>
	N	<p>Interviewee 2: "It was difficult to raise enough awareness around biodiversity and businesses. It was important to organize events, various study days, info sessions and so on."</p>
Domestic Wood Heating	N	<p>Interviewee 1: "For the consumer component, a lot has been done around awareness creation, nudging. However, the effect of this has never been measured."</p> <p>Survey respondent 3: 5/10 signaling economic benefits, 5/10 signaling ecological benefits, 1/10 signaling social benefits</p>
Circular Construction	+	<p>Interviewee 1: "I am amazed that circular construction has been put on the map in five years [during which the Green Deal was active]. When I became involved in the Green Deal, this [i.e., circular construction] was a big unknown for me. Now, there are lots of initiatives and you see it appearing often. The Green Deal has played an important role in this. In the policy program 'Op weg naar circulair bouwen 2022-2030', ... we are trying to put it [circular construction] on the map within other departments of the Flemish government. We see that doors are open there. ... We see that the space is there. We no longer come knocking on doors with a story no one has heard of. That is what makes the success of the Green Deal. ... There is clearly movement and a network behind it that lives and that makes people aware of it [i.e., the importance of circular construction]. It is not just civil servants behind their desks anymore that believe they should be included in the story of circular construction."</p> <p>Interviewee 1: "Circular construction had already gained traction at the start of the Green Deal Circular Construction, but the Green Deal has given it volume. It has accelerated awareness."</p> <p>Interviewee 2: "Thanks to the Green Deal, the participants are aware of the construction sector's footprint and use of materials. They are aware of the carbon emissions and water we consume to make building materials and realize that raw materials are not finite."</p> <p>End Report: "The biggest achievement of the Green Deal Circular Construction is the awareness process that has been set in motion. We have planted a seed that has started to grow and that, by now, is quite a tree. Lots of people and different types of construction actors see that tree and I think that is the way to create a big forest."</p> <p>Survey respondent 2: 6/10 signaling economic benefits, 8/10 signaling ecological benefits, 4/10 signaling social benefits</p>

	N	<p>Interviewee 2: “I think all participants of the Green Deal fully realize this [the sustainability consequences of the construction sector], while for some of our construction companies [which did not participate in the Green Deal], this is still an issue that is not directly of interest.”</p> <p>End Report: “At the same time, we saw that there is still limited interest from the broad target group of SME construction companies. So, there is definitely still work to be done in terms of awareness-raising.”</p>
Sustainable Urban Logistics	+	<p>Interviewee 1: “I do think we really succeeded in putting the theme of urban logistics on the map. As organizer, we started the theme because we saw that the impact of urban logistics on the quality of life in the city was very large but underestimated.”</p> <p>Survey respondent 1: 0/10 signaling economic benefits, 10/10 signaling ecological benefits, 7/10 signaling social benefits  Survey respondent 3: 5/10 signaling economic benefits, 9/10 signaling ecological benefits, 4/10 signaling social benefits  Survey respondent 4: 8/10 signaling economic benefits, 8/10 signaling ecological benefits, 4/10 signaling social benefits</p>

*Translated from Dutch*

**Table C.2 Factors awareness creation**

Action of participant		
Shared Mobility	+	<p>Interviewee 2: “A lot of the [participants’] actions focused on communication and raising awareness among the general public. That was an important element.”  Interviewee 2: “Creating awareness was an important part of the actions, along with interacting with policy, ...”</p> <p>End Report: “The combination of all these actions made shared mobility increasingly well-known. The actions were thus an important part of the promotion of shared mobility by this Green Deal.”  End Report: “In the period from 2017 to 2021, 68 signatories further publicized the concept of shared mobility through small- and large-scale actions. They did this by publicizing the Green Deal Shared Mobility within their network, by carrying out communication campaigns, writing articles on shared mobility and distributing them further via newsletters and magazines ...”  End Report: “Other signatories committed to long-term actions, such as promoting shared mobility among their supporters ...”</p> <p>Intermediate Report 2019: “45 actions have no end date or target. This is a commitment to permanently engage in shared mobility (e.g., ..., raising awareness and communicating about shared mobility). These actions will continue beyond the expiry date [of the Green Deal] and we also consider them to be successful within the objectives of the Green Deal.”</p>
Circular Construction	+	<p>Interviewee 1: “I think we had greater visibility with our Green Deal through the actions.”</p> <p>End Report: “Themes [of the actions]: - Social, temporary, ... - Sensibilization ...”</p>
Plenary event		
Circular Procurement	+	<p>Interviewee 1: “I think, in totality, it [the Green Deal] did contribute a lot to the awareness and visibility of the circular economy. By doing so many events and networking around sustainable procurement, you bring that subject into the spotlight enormously.”</p>

		Process Report: "... and the Buyer Meer Supplier events have raised awareness [in the mind of suppliers] that focusing more on a circular proposition and communicating more about it, can create extra turnover and attention."
Companies and Biodiversity	+	Intermediate Report: "This event provided an overview of some of the profitable aspects of biodiversity in business parks. The profitable aspects were explained from the point of view of an environmental consultant, a CSR-specialist and someone responsible for biodiversity from companies themselves."
Sustainable Urban Logistics	+	Intermediate Report 2020: "The launch of this Green Deal kicked off with a brief welcome from the King Baudouin Foundation, ... Afterwards, attendees were given a brief explanation on the importance of sustainable urban logistics."
<b>Exogenous context</b>		
Shared Mobility	-	Interviewee 3: "It is always difficult to say that there is a direct link [between COVID and the awareness creation process]. I do believe that, with the Green Deal, we did accelerate the social process that was going on around shared mobility, despite COVID. Because if it were not for COVID, we would have been even further ahead by now."
Companies and Biodiversity	+	Interviewee 1: "When we started the Green Deal, there was not much attention to biodiversity among companies. ... The Green Deal also happened when the climate movement got going and so there was more attention to biodiversity in general."
Circular Construction	+	Interviewee 1: "I think we [the Green Deal] came at the right time. ... Price is also an important aspect. It was often said that circular construction is expensive but then shortages arose in the market. This made people think that the linear story will not last forever and that there is a certain value in the circular story. That awareness has intensified: the scarcity of certain things, the dependence on certain external factors, the need to learn to reuse materials. Also, there was the tanker that blocked the Suez Canal so that products were no longer available to us. That has an impact. The supply chain in the construction sector is a very complex and sensitive system. Shortages have a big impact. Delays occur very easily. Companies see that there is a challenge in dependence on others in terms of supply and availability."

*Translated from Dutch*

## APPENDIX D: Capability development

**Table D.1 Performance capability development**

<b>Performance capability development</b>		
Shared Mobility	+	Intermediate Report 2019: "Through their commitment, the signatories realize what works and what does not, and this can only benefit the roll-out of shared mobility in Flanders."  Survey Respondent 1: 8/10 launching experiments/projects Survey Respondent 2: 7/10 launching experiments/projects Survey Respondent 3: 2/10 launching experiments/projects
Circular Procurement	+	Process Report: "After two years of the Green Deal Circular Procurement, we, in Flanders, are very proud of all the commitments, projects, inspiration, experience [created] around circular procurement." Process Report: "Due to the large number of projects, we were quickly able to divide them into product groups and now, through all the experience gained, we can share the first insights around circular procurement per product group. Some of these projects have since then become best practices ..."

		<p>Process Report: “Actually, the Green Deal Circular Procurement was one big experiment; a lab where we could conduct pilots in the best possible conditions in a safe environment.”</p> <p>Whitepaper: “The Green Deal involved experimenting, sharing knowledge and experience, and exploring new forms of chain cooperation.”</p> <p>Survey Respondent 1: 10/10 launching experiments/projects Survey Respondent 2: 8/10 launching experiments/projects</p>
	N	<p>Content Report: “There is a need for more space for experimentation. With more experimental space for materials, materials can be tested faster and then certified.”</p> <p>Process Report: “[After closing the Green Deal], there is a need for more experience with circular contract forms. Besides the many insights and inspiration, the commitment of each participant to effectively move to action led to the launch of circular procurement projects. Still, it is a little too early to really speak of a large number of experiments with circular contract forms such as product-as-a-service, buy-back, buy-through, etc. We need to think beyond the 2-year Green Deal Circular Procurement to keep track of all launched projects and see how inventively circularity is handled in contracts.”</p>
Companies and Biodiversity	N	<p>Survey Respondent 1: 0/10 launching experiments/projects Survey Respondent 2: 5/10 launching experiments/projects</p>
Domestic Wood Heating	N	<p>Survey Respondent 3: 2/10 launching experiments/projects</p>
Circular Construction	+	<p>Interviewee 3: “At the start [of the Green Deal Circular Construction], there was not much practical experience available among contractors to capture. Now [2024], this is easier [because there is more experience].”</p> <p>Interviewee 3: “A lot of experience has been built up [during the Green Deal]. That matters.”</p> <p>End Report: “The Green Deal Circular Construction has become a success story, helping the sector experiment and innovate to make circular construction the new norm.”</p> <p>End Report: “It is therefore important that this [Green Deal] will be followed up in the Circular Construction Work Agenda, where all the knowledge and experience gathered [in the Green Deal Circular Construction] will be put to work.”</p> <p>Survey Respondent 2: 9/10 launching experiments/projects</p>
	N	<p>End Report: “The many projects showed that experimenting with new forms of cooperation requires preparation and takes time. Ultimately it comes down to daring and doing. Defining a shared circular ambition, which can be reverted throughout the project, proves to be a valuable investment.”</p>
Sustainable Urban Logistics	+	<p>Inspiration Guide: “We learnt as much from the successes as from the setbacks. ... It goes without saying that we need to keep learning from the tests that we do.”</p> <p>Survey Respondent 1: 7/10 launching experiments/projects Survey Respondent 3: 3/10 launching experiments/projects Survey Respondent 4: 8/10 launching experiments/projects</p>

**Table D.2 Factors capability development**

Action of participant		
Shared Mobility	+	<p>Interviewee 1: “General about living labs: this is about innovation, if 20% are successful, you can be happy. It is about them [participants] trying things.”</p> <p>Intermediate Report 2019: “The initial actions are also sometimes fine-tuned: commitments that do not work are adjusted to actions that can achieve impact. In this way, the participants also create insight into the theme of shared mobility.”</p>
Circular Procurement	+	<p>Interviewer: “And the pilot projects themselves. What did you want to achieve with that?”</p> <p>Interviewee 1: “It was mainly about experimentation. But also, the idea that you can work with that [circularity] in your purchasing process, to bring that [circularity] in. Hence there were also a few conditions. We said: ‘Experiment with it [circular procurement] and see what that could mean for you.’”</p> <p>Interviewer: “And did you find that successful at the end?”</p> <p>Interviewee 1: “Yes.”</p> <p>End Report: “With more than 100 pilot projects, the Green Deal Circular Procurement was a great living lab for circular procurement.”</p>
Circular Construction	+	<p>Interviewee 1: “If you [participant] had a project, you started and experimented with it. “</p>
Sustainable Urban Logistics	+	<p>Interviewer: “The participants within the Green Deal started projects themselves. Was experimentation the main goal of this?”</p> <p>Interviewee 2: “Yes, experimentation around concrete applications that can also be tested. And [to create] experience that can be shared, so that those who get on the bandwagon later, can benefit from it.”</p> <p>Interviewer: “Were the projects successful according to you?”</p> <p>Interviewee 2: “I did not follow in more detail to what extent people achieved the intended goals. But certainly, to some extent, they were successful.”</p>
Workgroup		
Circular Procurement	+	<p>End Report: “The methodology of circular procurement teams, despite the 150 participants at the GDCP, allowed small groups to get actively involved. The theory and inspiration from the plenary sessions were translated into practice in these teams [workgroups] and applied to concrete procurement projects and challenges. This involved going through the logic of a circular project.”</p> <p>Process Report: “The afternoon sessions were now filled by the circular procurement teams or CPTs where buyers and facilitators now 'work together' on concrete files and go through the circular procurement process step by step (strategies, market, specifications, awarding, contract management, etc.).”</p> <p>Process Report: “The Circular Procurement Teams offer a large group of participants access to smaller workshops where they can learn to turn theory from the plenary sessions and on the learning platform into concrete actions.”</p>

Translated from Dutch

## APPENDIX E: Encouragement

Table E.1 Performance encouragement

Encouragement		
Shared Mobility	+	<p>End Report: “An overwhelming majority of signatories indicate that they will continue the actions taken after the completion of the Green Deal.”</p> <p>End Report: “The enthusiasm of signatories and the buzz created through a Green Deal make it a successful tool.”</p> <p>End Report: “The higher number of actions [executed by the participants compared to the number initially agreed upon] indicates the intrinsic enthusiasm of some signatories to commit to shared mobility and thus to undertake more actions than they originally anticipated.”</p> <p>End Report: “This Green Deal thus made shared and sustainable mobility a focal point for the signatory organizations and companies, even after it ended.”</p> <p>Intermediate Report 2019: “The Green Deal is not only an extremely useful tool to encourage organizations to take action, but also to connect partners from very different sectors.”</p>
	N	<p>Interviewee 1: “But keeping the commitment high remained a challenge. In the Green Deal Shared Mobility, we had lots of participants. These were probably too many. We did not need to expect 100 participants to have the same engagement, it was almost impossible to keep the whole group of participants engaged.”</p> <p>Interviewee 2: “Another thing that could definitely be improved was the enthusiasm, keeping the schwoeng high. In the first two years, this was fine but in the third year it started to diminish a bit.”</p> <p>Interviewee 3: “I found the biggest difficulty of the Green Deal was to ensure that the commitments were actually implemented. A whole number of participants were, for example, providers [of shared mobility]. They did make good progress. But another part of the participants were social stakeholders who did not have shared mobility in their core. With this group, we often had to go after them to make sure the commitments they made, were actually carried out. A number of participants also said afterwards: ‘We thought we had to be there’, but perhaps there was a lower intrinsic motivation [for these participants] compared with, for example, the providers.”</p> <p>End Report: “By mid-2019, it became clear that the Green Deal needed a new impetus to enthuse signatories with renewed energy.”</p> <p>End Report: “Keeping the Green Deal top of mind over the years proved difficult in some cases. Staff changes only added to this challenge. At the end of the Green Deal process, many organizations turned out to have different representatives in the Green Deal than at the start of the process. As a result, some of these contacts were not really aware of the (own) actions and objectives within the [Green Deal] project.”</p>
Circular Procurement	+	<p>End Report: “We are proud of all the participants who committed to getting started and experiment and learn from and with each other. They ... also encouraged circular providers to innovate.”</p> <p>Intermediate Report: “Despite some of the participants not taking immediate action, the Green Deal Circular Procurement did ensure that they [participants] ... were inspired.”</p>

		Interview VPO 4: “The instrument [the Green Deal] helps to keep the momentum going - in terms of investment too, it [circular procurement] is getting more attention. It [the Green Deal] is an initiative that helps keep it [circular procurement] high on the agenda. We have also said that it [the Green Deal] should continue to run, we are actually just starting... we would be sorry if it were to be done after two years.”
Companies and Biodiversity	+	<p>Interviewee 1: “After all, we managed to keep enthusiasm high for three years.”</p> <p>Interviewee 2: “In advance, they [participants] had to send in their action plan. .... For many, nothing had happened yet [after one year]. However, in the final years of the Green Deal, many [participants] had done something. This was also not always what they had envisaged. Sometimes they deviated from their original plan, but for quite a few participants there were good actions, even more than we had hoped for.”</p> <p>Intermediate Report: “From this, we infer that the majority of these parties take their commitment to heart and want to contribute to knowledge building and increasing support for biodiversity on business parks.”</p> <p>Interview VPO 1: “For example, the Green Deal on biodiversity has set a lot of things in motion, things that otherwise would have been slower to get going or would not have happened at all.”</p>
	N	<p>Interviewee 2: “Keeping participants engaged and motivated to go for it the Green Deal Companies and Biodiversity] was a difficult task, though. This is the case with every Green Deal. Keeping everyone continuously motivated is a difficulty.”</p> <p>Intermediate Report: “In line with this, it can be stated (cautiously and provisionally) that it is mainly large companies, companies with a good starting position and/or companies that provide services of general benefit (such as water purification, higher education and intercommunal organizations) that engage with biodiversity on business parks. This is not surprising because the Green Deal, besides the indirect benefits such as image gain and a more pleasant working environment, mainly revolves around engagement.”</p>
Domestic Wood Heating	N	Interviewee 3: “I have tried for five or six years to always re-engage these people [participants] and try to motivate [them] again by, for example, explaining it [not improving the situation regarding domestic wood heating] is also to their disadvantage because of various factors. But apparently a lot of administration [the participants] are still thinking in silos. They say that it [domestic wood heating] is not their problem and that they have enough work already.”
Circular Construction	+	<p>Interviewee 1: “The Green Deal has certainly set something in motion. We are now seeing the effect [of the Green Deal] in the Circular Construction Work Agenda. The Green Deal was concluded in February 2023. On 1 February 2024, we had the first meeting of the Work Agenda. ... With the Work Agenda, we got people back together without any problem. We had more than 200 registrations, we had to create waiting lists. This showed commitment from the participants, they wanted to be there again. It was nice that the network was not lost and that the enthusiasm at the meeting was also there.”</p> <p>Interviewee 2: “For me, the most important thing in the beginning of the Green Deal was the ‘me too effect’. We started with 180 or 200 participants. Actually, the Green Deal was full, but organizations kept wanting to join. If you can create that, you are doing well. I think that is a success. It [the Green Deal] creates a kind of enthusiasm.”</p>
	N	<p>Interviewee 1: “We [organizers] had to constantly keep people warm, constantly push, constantly motivate and ask for information. If all that [effort] is not there, then there is no Green Deal, to put it very crudely. It really has to be very much stimulated and organized.”</p> <p>Interviewee 1: “In circular construction, people are quick to look at others: ‘We can't do anything if they [others] don't move’. I find it difficult. I also find that a Green Deal is focused on the business world, it is economically oriented. You don't actually include the wider public in it.”</p>



Sustainable Urban Logistics	+	<p>Interviewee 2: "I think the Green Deal has set a lot in motion. I think it reached out to a lot of companies and did a lot of actions. ... It [the Green Deal] was really something that lived. For example, participants were not getting tired or annoyed when a new event was announced. It was always attended in large numbers."</p> <p>Interviewee 2: "I think the Green Deal was most inspirational for players within the same story."</p> <p>Intermediate report 2020: "During that first year, we achieved our main objective of boosting the steps taken by companies, local authorities, and other organizations towards sustainable urban logistics in Flanders."</p>
	N	<p>Interviewee 1: "There were certainly still talks with interesting companies, but in the end, they did not join or did not take part because there was no time for it or because they let the opportunity slip away. ... There were also companies that thought it was very important to be there [in the Green Deal], but then didn't assign someone dedicated to that theme [sustainable urban logistics] in order to follow up on it. As a result, we didn't see those [companies] very much."</p> <p>Interviewer: "Do you feel that the players would have made the efforts to the same extent and at the same speed [without the Green Deal] or did the Green Deal make a difference in that?"</p> <p>Interviewee 2: "Whether the Green Deal itself made a big difference in that, I do not know."</p>

*Translated from Dutch*

**Table E.2 Factors encouragement**

Action of participant		
Shared Mobility	+	<p>Interviewee 2: As I said in the beginning, it [the Green Deal] was really about creating buzz. I think that is a big virtue of all those concrete actions."</p> <p>End Report: "For example, UNIZO developed a sustainable mobility plan for its entrepreneurs and B2Bike supported companies in drawing up a (shared) bicycle plan, encouraging employees to come to work by (shared) bicycle. This action was very successful, with more than 1,000 employees getting in every year. Vdk bank is also working on a policy to encourage shared and environmentally friendly mobility among its employees. The signing of the Green Deal therefore not only had an effect at the Flemish level to bring about an acceleration in shared mobility, but at the same time ensured that within organizations, companies and municipalities more employees and residents started to engage in shared mobility."</p>
Circular Procurement	+	<p>End Report: "The more than 100 pilot circular procurement projects have undoubtedly triggered providers and spurred the market for circular products and services. ... But the Green Deal Circular Procurement was also a great opportunity for Flemish circular suppliers to profile themselves as circular frontrunners."</p> <p>Process Report: "With more than 100 projects launched, ... we have boosted the circular economy, because purchasing power is the biggest lever for change in the market. With all purchasers together, we have pooled huge buying power to deploy for a circular economy. The market is responding and is fully engaged in solving new circular solutions."</p>
Sustainable Urban Logistics	+	<p>Intermediate Report 2020: "Achieving sustainable urban logistics requires a combination of different types of actions. We see that the self-selected actions in this Green Deal focus on: - [Stimulating] Conscious behavior of consumers and drivers ..."</p>
<b>Award</b>		

Shared Mobility	+	Interviewee 2: "It [the award competition] was mostly about cities and companies. We are now doing the presentation of the Local Energy and Climate Pact award for local governments. We have now done this a second time and next year we will do it again. We do notice that municipalities are starting to ask questions about this: 'What exactly do we have to do to win this award?'. So, I think an award can help create enthusiasm, if it is structural."
Circular Procurement	+	Content Report: "Including circularity in award criteria encourages the market."
Companies and Biodiversity	+	Interviewee 1: "We [organizers] also organized two awards [during the Green Deal execution]: once at the end and once in the middle. To encourage people to take action but also to make those participants known to us so that we could put them in the spotlight. In that way, we put good examples in the spotlight." Interviewer: "Did the awards achieve their purpose?" Interviewee 1: "I think so, because on two occasions, 10 to 15 companies submitted an initiative, including even companies that were not yet participants in the Green Deal, who wanted to put their action in the spotlight and compete for the award. I do have the impression that we were able to create a buzz. The game element and the competition worked to create enthusiasm [to take action]."
<b>Newsletter</b>		
Shared Mobility	+	Interviewee 2: "The newsletters were mainly there for signatories to stimulate exchange. We tried each time to put good practices in the newsletter to inspire others: to show to other participants 'Look, this is what you can do to put shared mobility in the picture, to do concrete actions.'... Actually, the newsletter was always a kind of good news show and also a kind of announcement of the return moments, the thematic workgroups, ..." Interviewer: "Do you feel that the newsletter achieved its goals?" Interviewee 2: "If I remember correctly, I think that was okay and that is how it came out of our survey. I would have to check that again because it has also been a while, but I think the newsletter was perceived positively."
Circular Procurement	+	Interviewee 1: "The Green Deal had its own communication channel, a newsletter." Interviewer: "What was the purpose of that [newsletter] in particular?" Interviewee 1: "A bit like the inspiration days and those action days: keeping the thing [the Green Deal] alive, keeping the instrument in the spotlight." Interviewer: "And was that successful?" Interviewee 1: "Yes, it certainly succeeded."
Circular Construction	+	Interviewee 3: "It creates a kind of enthusiasm. That [enthusiasm] also depend on communication: the newsletters were always relevant to pick up on a number of things."
<b>Personal guidance</b>		
Sustainable Urban Logistics	+	Interviewer: "We often hear that it is difficult to keep participants engaged during the Green Deal. How did you keep the engagement high?" Interviewee 3: "The follow-up." Interviewer: "How did that follow-up happen?" Interviewee 3: "Contacting [the participants]. It is also in the covenant. That is part of the rules of the community. When they sign the Green Deal, they are also in agreement with that. And one year later, we write them an email and ask them where they are and how we can help. And through a link they could pick a time and then we had an online meeting."
<b>Plenary event</b>		
Shared Mobility	+	End Report: "During the first return moment on 7 September 2017, several signatories (including city of Antwerp and Genk, providers Zen Car, Stapp.in and cambio, Arteveldehogeschool, Federdrive and others) had the opportunity to present preliminary results of their actions and thus enthuse the other signatories about the Green Deal." End Report: "Shared Mobility Rocks immediately represented an opportunity to bring all signatories together again, create buzz around the Green Deal again and present the preliminary findings."

		End Report: "The signing [event] of the Green Deal ... at the same time also ensured that within organizations, companies, and municipalities, more employees, and residents engaged in shared mobility."
	N	Interviewee 2: "In the beginning, almost every signatory attended the return moments. After the second/third year, however, fewer people came, e.g., only 40."
Circular Procurement	+	Interviewer: "Was it [a preparatory event] also meant to gain insight into what the potential participants would want to see in that Green Deal. And how would they want to shape it?" Interviewee 1: "Yes, so they also mentioned what it could mean for them. So actually, also to warm up potential participants."  End Report: "During the two-year course, several one-day events were organized. On these days, participants were offered knowledge and inspiring examples." End Report: "Plenary sessions are great for informing and inspiring a large group of participants."  Process Report: "Inspiration and action days: Objective = Offer a program of live events of one full day each, where GDCP participants get access to knowledge, expertise, inspiring examples in the field of circular procurement and where space was created for cooperation and networking among the participants." Process Report: "Plenary sessions in the morning were ideal to convey knowledge and inspire a large group of organizations."  Whitepaper: "During the first year of the Flemish Green Deal on Circular Procurement, emphasis was put on inspiring the participants with knowledge and (international) cases as well as on connecting participants and creating a community."
Companies and Biodiversity	+	Interview VPO 2: "The signing moment was very important! Everyone was there, it was a great success! ... Such events will still be needed to keep the Green Deal alive and in focus."
Circular Construction	+	Interviewee 3: "I think the action days absolutely succeeded in their goal of bringing people together, getting people excited, and transferring knowledge."
Sustainable Urban Logistics	+	Interviewer: "We read that there were thematic and networking events. Can you give more info on that, what the purpose of it was and whether it succeeded in achieving that purpose?" Interviewee 2: "I can't say too much about it. I didn't participate in all of them myself, due to lack of time. Partly, it [plenary events] definitely succeeded because they can really inspire and bring people together."
<b>Site visit</b>		
Companies and Biodiversity	+	Interviewee 2: "..., where we visit certain sites that are good examples. These [site visits] do have a very inspiring effect."
	N	Interviewee 2: "There could also be more field visits for inspiration."
Circular Construction	+	Interviewee 1: "Showing business sites speaks to the imagination."
	N	Interviewee 1: "We also tried to organize company visits but that is practically very difficult to organize with a large group. You also don't want to start deploying buses [to transport participants]."
<b>Subsidy</b>		
Circular Construction	+	Interviewee 1: "Yes, parallel to the Green Deal, there were calls from Flanders Circular. These funds were then kind of pulled within the group, about 100,000 euros in total. Those were not big projects, but they were incentives to try things. There were also calls from VLAIO, which were bigger. We noticed that, when there are grant channels and the participants therefore have more resources, there are also more obligations in terms of reporting results and sharing results. In the purely voluntary projects, there are always people who show a lot of commitment and people who show it less." Interviewer: "So, do you see a clear link between the funding and the commitment or effort put in by the participant?" Interviewee 1: "Definitely."

		Interviewee 2: ... ultimately, the Green Deal is a voluntary commitment. If private companies, such as contractors and architects, have to cut back on resources and time, then this is done in the Green Deal. Ultimately, normal business operations are always going to take precedence over a voluntary commitment. You, as a participant, do make the commitment and you do stand behind the principles but at some point, the order of the day then takes precedence. If you receive financial support, you are more obliged to do what you set out to do. In principle, everyone had to organize a pilot project as a participant, but you notice that, in the end, not everyone did. You don't have a stick as an organizer either, you cannot make it compulsory. You notice that among those who had resources [for their projects], the initiatives succeeded and among those who did not have resources, they succeeded somewhat less. I think it is a reality."
<b>Website specific</b>		
Shared Mobility	N	Interviewee 2: "At first, we did think this [the specific website] would create some kind of buzz but that turned out not to be the case after all."
<b>Workgroup</b>		
Shared Mobility	+	Interviewee 1: "It [the workgroup] was also a moment to, once again, remind people of their own commitments."
	N	Interviewee 1: "Engagement disappears quickly: participants come a first time, a second time, but then wonder 'Why are we still coming?'. We have had to adjust and make the workgroups more action oriented."  End Report: "However, four years of commitment proved quite long for this workgroup. In 2019, it proved more difficult to re-engage participants to participate in the workgroup and progress slowed down." End Report: "The relevance of the workgroups depended heavily on their elaboration. For some signatories, the workgroups were a little too non-committal and support could be better. For other signatories, the themes and approach of the workgroups could be a bit more specific. Due to the lack of concreteness, the workgroups sometimes fell off the priority list quickly."
Circular Procurement	+	End Report: "A total of 10 Circular Procurement Teams were initiated, categorized by product group. Each had a moderator and reporter. The participants themselves acted as inspirers: they shared their own experiences and challenges with the group."  Whitepaper: "Communities of practice (CoP) create a unique learning network: participants learn together and inspire each other. ... Communities of practice give visibility to the engagement of participants and can help to convince others to take the leap forward."
	N	End Report: "Because the group of purchasers varied little throughout the GDCP journey, participation in the events [of the workgroups] became less commercially attractive to purchasers as time went on."
<b>Current regime</b>		
Circular Construction	+	Interviewee 1: "For example, because of the unit regulations for recycled granulates, a number of people decided to get involved."
Sustainable Urban Logistics	-	Interviewee 1: "We took 4 cities from the beginning. I did not manage to engage additional cities for this [Green Deal], because I also think those cities thought 'Let us wait and see.', because there was no Flemish legislative framework. Otherwise, I think we had a nice, diverse composition of participants and companies."
<b>Exogenous context</b>		
Shared Mobility	+	End Report: "The switch to online operation as a result of COVID-19, therefore, made it easier for several signatories to remain involved in the Green Deal."
Companies and Biodiversity	-	Interviewee 1: "Less good about the timing [of the Green Deal] was COVID because companies were shut down and there was panic in all areas. Then, there was little focus on biodiversity."

Circular Construction	+	Interviewee 1: "[During COVID], there were a lot of problems with the supply of materials then. Also, the Ukraine crisis caused problems. If you had started the Green Deal after that, you might have had even more companies that wanted to participate because then the companies really did face materials crises." Interviewee 1: "Also, for example, the energy crisis. It was twofold: on the one hand there was the feeling 'Now is not the right time to start innovating' and on the other hand it was also an opportunity [to take action]."
	-	Interviewee 1: "Also, for example, the energy crisis. Its effect was twofold: on the one hand, there was the feeling 'Now is not the right time to start innovating' and on the other hand, it was also an opportunity [to take action]."
Sustainable Urban Logistics	-	Interviewee 1: "All the attention went to COVID... The attention did not go to 'less important and less urgent matters [such as the Green Deal]'. Especially when there was no commitment to results. Such things [commitment to the Green Deal] are put aside temporarily. It was not top of mind."  Interviewee 1: "Yes, the fact that the [environmental] situation is only getting worse and worse [stimulated participation of organizations]..."

*Translated from Dutch (except the Whitepaper)*

## APPENDIX F: Knowledge enhancement

**Table F.1 Performance knowledge enhancement**

Knowledge enhancement		
Shared Mobility	+	End Report: "In addition, the Green Deal also provided opportunities to create visibility for the bottlenecks within the shared mobility theme." End Report: "Also not to be underestimated is the learning aspect of the Green Deal. The knowledge gained can be built on, facilitating the implementation of upcoming projects." End Report: "The Green Deal has been able to provide many exchanges of experience, as a result of which a lot of signatories now know the right approach to taking shared mobility forward."  Intermediate Report 2019: "The greatest added value of a Green Deal is the knowledge exchange and cooperation, [according to] 84% [of the respondents]." Intermediate Report 2019: "This Green Deal Shared Mobility ensured that expertise and knowledge on shared mobility could be exchanged between different partners. Indeed, the Green Deal includes a very diverse group of signatories, each with their own knowledge, expertise and mission."  Survey respondent 1: 9/10 generating new knowledge and tools, 9/10 transfer of knowledge, 5/10 providing useful tools Survey respondent 2: 10/10 generating new knowledge and tools, 9/10 transfer of knowledge, 7/10 providing useful tools Survey respondent 3: 8/10 generating new knowledge and tools, 8/10 transfer of knowledge, 2/10 providing useful tools
	N	End Report: "However, it was not easy to maintain a good balance between what was relevant to all signatories and what was not. For example, not every signatory found it relevant to read extensive reports on the actions of other signatories in a newsletter." End Report: "While smaller local governments and companies mainly needed an introduction to shared mobility and concrete support to get started with it, shared mobility providers and center cities rather wanted to address very concrete bottlenecks."

		<p>End Report: “Within this Green Deal, the main focus was on starting up shared mobility among organizations that knew little about shared mobility. For signatories who already had more knowledge and expertise, this was often too ‘low-key’.”</p> <p>Intermediate Report 2019: “Some signatories indicated that this exchange could be further elaborated and deepened. They sometimes miss information on developments within the Green Deal and actions taken by other signatories.”</p>
Circular Procurement	+	<p>End Report: “Through the commitment and courage of all participants, we can now share a lot of experience and insights.”</p> <p>End Report: “In collaboration with Circular IQ, Flanders Circular has developed a tool specifically for GDCP participants: the GDCP Impact Tool. ... The tool then generates a report that provides insight into the intended and realized circular impact. It is also a tool for dialogue within one's own organization.”</p> <p>Whitepaper: “The participants formed a unique learning network: experimenting, sharing knowledge and experience and exploring new forms of chain cooperation.”</p> <p>Survey respondent 1: 7/10 generating new knowledge and tools, 7/10 transfer of knowledge, 8/10 providing useful tools Survey respondent 2: 3/10 generating new knowledge and tools, 10/10 transfer of knowledge, 9/10 providing useful tools</p>
	N	<p>End Report: “It was difficult to strike a balance between a [learning] offer for the many starters and a few frontrunners. The latter were left somewhat unsatisfied.”</p> <p>End Report: “There appears to be high staff turnover [with the participants] for procurement functions. This makes it more difficult to build on acquired knowledge or insights.”</p> <p>End Report: “The tool is too far removed from the day-to-day operations of buyers, so buyers don’t always see its added value.”</p> <p>Whitepaper: “Through the evaluation, we found out that participants found the tool to be complex and time consuming, which resulted in a low response rate. This might be because of the level of detail of the questions, and the fact that some of the questions have to be answered by the supplier or even the production site. The exercise lies in balancing asking for enough detail to provide a qualitative analysis, with user-friendliness.”</p>
Companies and Biodiversity	+	<p>Interviewer: “So, there was no problem regarding a different level of knowledge between participants who had entered the Green Deal earlier or later?”</p> <p>Interviewee 1: “No, that was rather an added value. So, the participants who joined [later] had less knowledge and could learn from what was already there [in the Green Deal].”</p> <p>Interviewee 1: “The supporting parties had knowledge that they could offer [to the participating parties] ...”</p> <p>Interviewee 2: “The knowledge building is very important, and we did that.”</p> <p>Intermediate Report: “There was a lot of uncertainty about this concept [temporary nature], including whether it was legally sound. This Green Deal was part of the driving force to clarify this (to remove the legal uncertainty) and to make the concept applicable in Flanders. So far, about five companies are investigating whether they can start working with temporary nature.”</p> <p>Survey respondent 1: 7/10 generating new knowledge and tools, 8/10 transfer of knowledge, 6/10 providing useful tools Survey respondent 2: 5/10 generating new knowledge and tools, 10/10 transfer of knowledge, 8/10 providing useful tools</p>

Domestic Wood Heating	+	<p>Interviewee 1: “Because of this Green Deal, we have effectively made a lot of progress with the sector, with the companies, on knowledge collection and collaboration.”</p> <p>Interviewee 2: “When I look at the Green Deals ... then the knowledge gathering in this Green Deal has worked very well.”</p> <p>Interviewee 3: “In that Green Deal [Domestic Wood Heating], we did a lot of work, but that was mainly preparatory study work to put those regulations in place. We also achieved some realizations. For instance, we made a code of good practice, a guidance document and useful things, ...”</p> <p>Interviewee 3: “Knowledge building is super relevant. We also made real publications...”</p> <p>Intermediate report: “Intermediate status and results: to identify the most suitable method for phasing out these wood-burning appliances in Flanders, preparatory research was conducted in a first phase by Vito, in collaboration with partners Kenter and SuMa consulting. This research, which was completed by the end of 2019, evaluated various building blocks and alternatives for phasing-out systems based on an analysis of various foreign examples and their potential for Flanders.</p> <p>Intermediate Report: “Over the past 2 years, mainly preparatory research work was initiated and carried out.”</p> <p>Survey respondent 3: 7/10 generating new knowledge and tools, 8/10 transfer of knowledge, 4/10 providing useful tools</p>
Circular Construction	+	<p>Interviewee 1: “There is more knowledge and more research [because of the Green Deal].”</p> <p>Interviewee 1: “We have the digital Totem tool in which a lot of money has been invested. A lot of research has gone into it.”</p> <p>Interviewee 2: “We naturally identified a number of legal bottlenecks throughout the Green Deal.”</p> <p>Interviewee 3: “A lot of activity and knowledge has also been built up.”</p> <p>End Report: “Indeed, these graphs show that knowledge about circular construction has increased over the years.”</p> <p>End Report: “A steady growth in participants' circular knowledge was therefore evident from the surveys conducted.”</p> <p>Website 2: “In early 2023, the Circular Procurement Legal Q&amp;A Roadmap, the Circular Business Models Roadmap, the Practical Tools and the Circular Construction Policy Matrix were published.”</p> <p>Website 2: “Besides delivering practical tools, recommendations for (re)building practice, policy, and the research community were also shared in early 2023.”</p> <p>Survey respondent 2: 9/10 generating new knowledge and tools, 9/10 transfer of knowledge, 6/10 providing useful tools</p>
Sustainable Urban Logistics	+	<p>Interviewee 2: “You want to document the things that have been learned as much as possible. So that others can benefit from it. They [the other organizers] did that well, too. In itself, that process did go well.”</p> <p>Interviewee 2: “Also, it [the Green Deal] has documented the results and disseminate them.”</p> <p>Interviewee 3: “Reporting on what is happening within the Green Deal. [One organizer] has published some reports on that. That is public and we can learn about what is happening in the Green Deal. So, that is a form of knowledge and dissemination of knowledge.”</p>

	<p>Interviewee 4: "I think a lot of people learned a lot from the Green Deal. We [the organizers] also learned a lot from it. Interviewee 4: "I do think we were in a position to capture things [information]. I thought that was very important."</p> <p>End Report: "After a phase of recruiting participants, we were able to make a good inventory of the barriers for emission-free urban distribution."</p> <p>Inspiration Guide: "The Green Deal has great value in sharing knowledge ..."</p> <p>Survey respondent 1: 7/10 generating new knowledge and tools, 10/10 transfer of knowledge, 3/10 providing useful tools Survey respondent 3: 7/10 generating new knowledge and tools, 9/10 transfer of knowledge, 7/10 providing useful tools Survey respondent 4: 6/10 generating new knowledge and tools, 10/10 transfer of knowledge, 9/10 providing useful tools</p>
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*Translated from Dutch (except the Whitepaper)*

**Table F.2 Factors knowledge enhancement**

Action of participant		
Shared Mobility	+	<p>Interviewee 1: "There were more than 500 actions in the Green Deal. ... There has been knowledge exchange between the federal organization working on statistics, Statbel, who researched how to process shared mobility statistically. There has been work around insurance: there were issues about legislation and insurance that came up. It is hard to pick one action, there was just a lot that happened."</p> <p>End Report: "Other signatories committed to long-term actions, such as ... conducting research on a particular aspect of shared mobility." End Report: "Through experiments and living labs, a lot of research could be done within this Green Deal, including where and when the integration of shared mobility is successful, what bottlenecks exist within the legislation, what impact shared mobility has on car ownership and travel behavior, etc. ..."</p>
Companies and Biodiversity	+	<p>Intermediate Report: "For example, one of the participants developed a tool to measure biodiversity gains on its own sites." Intermediate Report: "24.7% of all actions have already been completed, 51% of all actions are ongoing, 24.3% of all actions are yet to be launched. Examples of actions include documenting best practices, ..."</p>
Domestic Wood Heating	+	<p>End Report: "The Green Deal actions focusing on policy preparatory study research and knowledge building, have largely been completed. This formed the bulk of the work in the first two to three years of the Green Deal period. Several new publications of the Green were also delivered during this period." End Report: "The actions aimed at improving domestic wood combustion can be roughly divided into actions aimed at preparatory study research and actions aimed at developing concrete policy measures and instruments."</p>
Circular Construction	+	<p>End Report: "To support the design team in circular construction, several design tools have been developed." End Report: "To show concrete examples, Bond Beter Leefmilieu and VIBE created the database C-Bouwers. be, and Buildwise explained technical insights and practical examples with bio-based materials." End Report: "By documenting all the steps of our pilot project, which is the construction of a circular meeting center, we wanted to create a guide for other circular projects. We described the workflow in detail and, with the plans, provide insight into what choices around materials and techniques can be made early in the process. We use the lessons learned from this pilot project in Stad Brugge's own patrimony and share them within the sounding board group..."</p>



		<p>End Report: “The various actors, relevant to a circular construction process, worked together on innovative, circular construction projects and on concrete experiments on construction sites. ... The use of guiding research and the facilitation of a learning process helped to make proven practices visible, share knowledge between the actors involved and develop workable solutions.”</p> <p>End Report: “Finally, lessons on circular construction are discussed. These numerous learning lessons were collected during pilot projects and in workshops ...”</p>
Sustainable Urban Logistics	+	Interviewee 1: “These actions were also a means of getting information from the participants. We wanted to find out what the obstacles and hurdles are that you encounter as a city or company that wants to work on sustainable urban logistics. We were then able to compile those obstacles properly at some point and make an overview of them.”
	N	Interviewee 2: However, you shouldn't expect everything [all information and insight gained from the pilot projects] to be shared openly. Delhaize is not going to share everything from A to Z with Colruyt. It is as simple as that. But in essence, it [sharing insight] makes sense and does happen.”
<b>LinkedIn group</b>		
Circular Procurement	+	Whitepaper: “For the Flemish Green Deal Circular Procurement, ... a closed LinkedIn group allowed for swift sharing of information and interaction with and between participants. We used this LinkedIn group also to provide a platform for suppliers to inform the procurers of the latest circular products or services.”
Circular Construction	+	Interviewee 2: “The Green Deal had a LinkedIn channel where not only information from the Green Deal was posted but also where all participants, especially sector federations or knowledge institutions, could post information about things they may have organized themselves. I think that [the LinkedIn group] also helped to further spread knowledge about circular construction.”
	N	Interviewee 2: “I think it [the LinkedIn group] was used less by individual companies but rather by, for example, [an organizer] to indicate activities, or other sector federations. I think it was slightly less used by companies themselves.”
Sustainable Urban Logistics	+	Interviewee 3: “There was a website with all the other Flemish Green Deals, but the LinkedIn group was the most used [information channel]. It [the LinkedIn group] was similar to the newsletter but had a higher frequency and less content. I think I find the LinkedIn group better than a newsletter [distributed via email]. It is easier to have interaction around news. Furthermore, when you go on LinkedIn, you have more the intention to get news and you provide a bit more time for that.”
<b>Newsletter</b>		
Shared Mobility	+	<p>End Report: “The way to keep all signatories informed of news and events regarding the Green Deal is the newsletter. ... The news summary on the state of shared mobility in Flanders is popular, but even more signatories find it interesting to know what the other signatories are doing and what the status of the workgroups is. The newsletter thus proves to be a good tool to keep signatories informed about what is happening in the field of shared mobility, inside and outside the Green Deal.”</p> <p>Intermediate Report 2019: “Within the Green Deal Shared Mobility, communication from and to the partners takes place via newsletters, the website and personal contact during meeting moments. In this way, the signatories stay informed about what is going on within the Green Deal and the aforementioned knowledge exchange can take place.”</p>
	N	End Report: “Signatories missed both substantive information on the results from the Green Deal, and information on how the instrument works. For example, the signatories who joined at the second signing moment indicated that they were not always aware of the workgroups and how to participate in them. Better feedback (e.g., through a newsletter) would have been good. However, it was not easy to keep a good balance between what was relevant to all signatories and what was not. For example, not every signatory found it relevant to read extensive reports on the actions of other signatories in a newsletter.”
Circular Procurement	+	Interviewee 2: “It [the newsletter] was mainly about sharing knowledge. Information about what we were doing, but also what others were doing. Publications too. Actually, what's on the website, but you first put it in a newsletter in the form of an article. About what happened during different events in past or will happen in the future.”

		Whitepaper: "A newsletter is an easy way to share information with your participants that might complement the learning platform."
Companies and Biodiversity	+	<p>Interviewee 1: "I think so, because that [the newsletter] was our first channel for information transfer. Also, if a meeting or learning network event was organized, it was shared through the newsletter. Most people [participants] did know about everything, primarily through the newsletter. The newsletter was necessary. ... At Green Deal Companies and Biodiversity, we didn't do a survey, but we do feel that the message did get through via the newsletter."</p> <p>Intermediate Report: "In addition, this Green Deal does knowledge building by sharing information, interesting seminars and good examples via its newsletter and website. The click rate of the newsletter shows that it is moderately to well opened and read (35% - max. 40%)."</p>
Circular Construction	+	<p>End Report: "Sharing information through a number of well-chosen channels proved to be of great value to the Green Deal Circular Construction. There was communication through one central online platform with both a members' area and a public section, through a monthly news flash for participants and through a LinkedIn group accessible to the general public."</p> <p>End Report: "The cases and issues [derived from a workgroup] were further disseminated via the website and newsletter to architects and construction companies that were not directly involved in this learning network."</p> <p>End Report: "In addition, participants also received a monthly news flash in their mailbox, keeping them updated on key activities and progress of the learning network."</p>
Sustainable Urban Logistics	+	<p>Interviewee 2: "The newsletter was also aimed at others [people outside the Green Deal]. Anyone could subscribe to it. It gave fairly regular updates on the status of the various projects. Projects were also highlighted. Meetings were announced and other relevant initiatives and so on."</p> <p>Interviewee 4: "The newsletter was meant to inform. In the beginning it was very general to say what events are there. But then gradually we started putting companies/participants in the picture. Then we started doing more things like that. We also started sharing insights we learned in workshops. ... And I think it is also a good tool to give people who weren't actively participating an overview anyway."</p> <p>Intermediate Report 2022: "We have given the existing newsletter a new format and new content, to be even more responsive to readers' needs. Besides the actions of new participants, we also give an update on an existing, ongoing action each time. In addition, we look over the wall and report on a well-run action abroad. Other relevant news also gets a place in the newsletter."</p>
	N	Interviewee 3: "I believe less in newsletters [than in LinkedIn], but it [a newsletter] also gives a nice summary of everything once a month or quarter. So, it is an added value because you can always more easily share it with someone else."
<b>Personal guidance</b>		
Shared Mobility	N	Interview VPO 6: "Learning process: [it was] nice that they [the Green Deal participants] were with a lot but sometimes this makes it a bit less workable. We [the organizers] want to sit together more one-on-one with signatories. [This led to] Missed opportunities. There are bottlenecks that have not come up yet. [One-on-one meetings with participants] Needed in structural way. Depends on time investment."
Sustainable Urban Logistics	+	Interviewee 2: "There were several [private] meetings with the participating actors. This was mainly for exchanging experience, but also partly to give [participants] additional input on specific know-how or on other actors, possibilities, and techniques."
<b>Plenary event</b>		
Shared Mobility	+	<p>Interviewee 2: "Another objective was, of course, the exchange of knowledge. We did that at the return moments [plenary events] and in the workgroups. That was an added value for the Green Deal participants."</p> <p>Interviewer: "There have been events, what did you mainly want to achieve?"</p> <p>Interviewee 3: "Exchange between the different parties and also give an update on the commitments that the participants have made."</p>

		<p>End Report: “Shared Mobility Rocks immediately represented an opportunity to bring all signatories together again, create buzz around the Green Deal again and present the preliminary findings.”</p> <p>End Report: “Highlights were, undoubtedly, the editions of the international symposium Shared Mobility Rocks, where several Green Deal signatories acted as experts and were able to exchange knowledge.”</p>
Circular Procurement	+	<p>Interviewee 2: “I think about three times a year, we organized an event in which all participants could participate. That focused on several things. First, it was focused on knowledge sharing. Speakers were invited from different organizations who have some experience in this. For example, people from the Netherlands, because they are a bit ahead of us.”</p> <p>Interviewer: “Were the inspiration days also successful?”</p> <p>Interviewee 2: “Yes, that was also definitely needed in the beginning to give them [participants] the knowledge required.”</p> <p>Interviewee 2: “In the beginning, we did more inspiration days because that knowledge was not there yet. Halfway through, we added action days. The intention was not just for them to gain all the knowledge. The intention was also to start up two procurement processes. To do that, you first have to know what that [circular procurement] entails. So, we focused on that in the beginning.</p> <p>End Report: “During the two-year course, several one-day events were organized. On these days, participants were offered knowledge and inspiring examples.”</p> <p>End Report: “Plenary sessions are great for informing and inspiring a large group of participants.”</p> <p>Intermediate Report: “Through participation in four inspiration days and through the online platform, participants acquired enough basic knowledge to get started with a circular procurement project themselves.”</p> <p>Process Report: “Plenary sessions in the morning were ideal to convey knowledge and inspire a large group of organizations.”</p>
	N	<p>Process Report: “The program [of the plenary events] was particularly interesting for organizations with limited experience with circular procurement (the vast majority). For more advanced participants, the program was not in-depth enough.”</p>
Companies and Biodiversity	+	<p>Interviewee 1: “We did a number of learning network days where knowledge was transferred on how to get started, purely practical. For example, adjusting mowing management: ‘How do you do it?’”</p> <p>Interviewee 2: “We organized several study days, also an information market and each time invited speakers who knew something about the topic of biodiversity. We also organized field visits where there was, of course, already something to see. So, on the one hand, these initiatives [both study days and field visits] were intended to share knowledge and, on the other hand, to network. We saw that it was very valuable to do the combination of the two.”</p>
	N	<p>Intermediate Report: “A short survey was organized after the event. Overall, the learning networking event was rated as successful. ...; ‘Going deeper into a particular part of the subject matter’ were the main tips from the survey.”</p>
Circular Construction	+	<p>Interviewee 3: “We also sometimes presented the results of the Living Lab in plenary events.”</p> <p>Interviewee 3: “I think the action days absolutely succeeded in their goal of bringing people together, getting people excited and transferring knowledge.”</p> <p>End Report: “Finally, lessons on circular construction are covered. These learning lessons were numerous collected during pilot projects and in workshops and frequently exchanged on the stage of the Green Deal Circular Construction.”</p> <p>Interview VPO 3: “We also did a lot of presentations in the first few months to inform people.”</p>

Sustainable Urban Logistics	+	<p>Interviewee 4: “Yes, in thematic events, knowledge is shared. But you also share experiences and create a bit of discussion.”</p> <p>Inspiration Guide: “In addition to these networking events, the Green Deal also organizes thematic events. These are open to all interested parties and respond to knowledge needs from the field.”</p>
<b>Research center</b>		
Circular Construction	+	<p>End Report: “In parallel with the activities of the Green Deal Circular Construction, a scientific consortium called Proeftuin Circulair Bouwen [the research center] was active. This group [research center] linked existing research to the field experience from pilot projects, to develop substantiated policy and practical recommendations. At regular intervals, they presented their results during action days or webinars. Conversely, they were also fed by participants’ projects and researchers’ questions formed part of the Communities of Practice.”</p> <p>End Report: “In this second sub-task, ‘Proeftuin Circulair Bouwen’ focused mainly on unravelling the opportunities and obstacles that change-oriented (re)construction has to offer with regard to circular economy. This resulted in a ‘Practical guide for building’, which zooms in on the effectiveness and feasibility of technical solutions; a roadmap for circular business models, which compiles practical info on various financial models and a roadmap with Q&amp;A on circular procurement. In February 2023, the Living Lab Circular Building released the report on change-oriented (re)construction. Still in the pipeline: a policy matrix that provides local governments with guidance on how to build circularly tailored to their ambition.”</p>
	N	<p>Interviewee 3: “I think it did go beyond building engineering and included a lot of practical things as well. But I do understand what you are referring to and that e.g., the substantiation of added value, or the substantiation of the environmental benefits of change-oriented building or of more recycling or reuse, was actually not realized within the living lab [research center] or only to a very limited extent. Many other things were realized that were not foreseen or not made so explicit.”</p>
<b>Site visit</b>		
Companies and Biodiversity	+	<p>Interviewee 2: “We organized several study days, also an information market and each time invited speakers who knew something about the topic of biodiversity. We also organized field visits where there was, of course, already something to see. So, on the one hand, these initiatives [both study days and field visits] were intended to share knowledge and, on the other hand, to network. We saw that it was very valuable to do the combination of the two.”</p>
Sustainable Urban Logistics	+	<p>End Report: “We started on the 13<sup>th</sup> of February with a company visit to DHL Express at the Blue Gate site in Antwerp. Participants were given a guided tour and DHL representatives answered questions very openly.”</p>
<b>Subsidy</b>		
Circular Construction	+	<p>Interviewee 2: “Because of this financial incentive that was obtained, more results were achieved, and more knowledge was gathered compared to if this had not happened.”</p>
<b>Webinar</b>		
Shared Mobility	+	<p>Interviewee 2: “... and they [webinars] also showed that you can easily exchange a lot of knowledge in one hour, that people also find it interesting and find it good that they can watch it at their leisure afterwards.”</p> <p>Interviewee 3: “Webinars are good tools for transmitting information quickly.”</p>
Domestic Wood Heating	+	<p>Interviewee 2: “There were also webinars, which introduced the studies.”</p> <p>End Report: “[The Green Deal organized] Webinars on Green Deal publications and preparatory study research.”</p>
Sustainable Urban Logistics	+	<p>Intermediate Report 2021: “We then work in breakout sessions around specific aspects of sustainable urban logistics (industry cooperation, loading and unloading points, data) or zoom in on participants' actions: what is going well or not and what is needed for the action to be successful.”</p>

		Inspiration Guide: “For instance, we looked at the potential of bicycle logistics and the preconditions for making it a success story. In another webinar, we looked at the possibilities of greening the logistics vehicle fleet in the short term. We also paid attention to smaller cities and rural municipalities, and what they - and the companies operating on their territory - can do to reduce the impact of goods flows.”
<b>Website government</b>		
Companies and Biodiversity	+	Intermediate Report: “In addition, this Green Deal does knowledge building by sharing information, interesting seminars and good examples via its newsletter and website.”
Sustainable Urban Logistics	N	Interviewer: "And do you know if that [the government website] was a good way to share information?" Interviewee 2: "I have never looked into that, and I have never seen visitor statistics [of the government website]. So, I think that is the most relevant question: ‘Was it ever clicked on?’"
<b>Website specific</b>		
Shared Mobility	+	Intermediate Report 2019: “Within the Green Deal Shared Mobility, communication from and to the partners takes place via newsletters, the [Green Deal-specific] website, and personal contact during meeting moments. In this way, the signatories stay informed about what is going on within the Green Deal and the aforementioned knowledge exchange can take place.”
Circular Procurement	+	Intermediate Report: “Through participation in four inspiration days and through the online platform, participants acquired enough basic knowledge to get started with a circular procurement project themselves.”  Process Report: “The online platform is ideal for sharing any information relevant to support the learning journey (presentations, reports, guides, websites, best practices, training, etc.).”
	N	Interviewer: "So, if you would do the Green Deal over; would you implement it [the Green Deal-specific website] again?" Interviewee 2: "A different kind of platform perhaps. That was five years ago. I think by now there are other platforms for knowledge sharing. There may be other and better tools. But I think it does make sense. We also have a website and a knowledge platform that is behind the walls and only for members. And I notice that it does work. Knowledge is exchanged there. And questions are asked. So, I do believe in that kind of learning platform. But I don't really know why it hasn't worked there [in the Green Deal] enough. In the long run, you [participants] have a lot of different platforms you are part of.” Interviewee 2: “Yes, the fact that it is not a permanent tool [is something negative about the Green Deal]. It is something that expires and then becomes a bit static. For example, the website doesn't get updated anymore. If that website looks the same way after 10 years, then it is hopelessly outdated and useless.”
Circular Construction	N	Interviewee 3: “In addition, you also got a proliferation of information: some things were on the Green Deal's [specific] website within the open or closed section, some things were on [an organizer's] website, some things on [another organizer's] website, sometimes somewhere else. You all start from the best intentions, but you all create a bit of a similar website. This is unfortunate.”
<b>Workgroup</b>		
Shared Mobility	+	Interviewee 2: “Some workgroups worked very well and also had concrete results, for example, the workgroup on integrating partial mobility in residential environments. That one really created a kind of practical guide or inspiration guide of which there was also a 2.0 version.” Interviewee 2: “Another objective was, of course, the exchange of knowledge. We did that at the return moments [plenary events] and in the workgroups. That was an added value for the Green Deal participants.”  End Report: “However, most of the research could be done through the workgroups. In these [workgroups], signatories came together to delve into a specific topic and exchange expertise and tips. Their findings were collected and presented in inspiration books, events, and webinars.”

		<p>End Report: “The workgroup ‘Shared mobility in housing locations’ worked on an inspiration book to guide all stakeholders in implementing partial mobility in the residential environment.”</p> <p>End Report: “The workgroup led by M pact explored existing and new opportunities to engage with shared mobility outside center cities.”</p> <p>Intermediate Report 2019: “Nevertheless, thematic workgroups are a great added value in a Green Deal. They are the instrument par excellence to learn from each other and share knowledge with each other.”</p> <p>Intermediate Report 2019: “This workgroup carried out a lot of work in 2017 and 2018. One of its finest achievements was the symposium and related study on bottlenecks within the insurance industry and shared mobility.”</p>
	N	<p>Intermediate Report 2019: “Not all workgroups have the same impact. For example, the workgroups on shared mobility in center cities and rural areas deal with a very large topic with very diverse aspects and are therefore less able to work with depth and come up with concrete solutions.”</p>
Circular Procurement	+	<p>Interviewee 2: “During those workgroup sessions, that [information from the pilot projects] was shared.”</p> <p>End Report: “The workgroup are a mix of buyers and various experts. Because all members contribute from their own experiences, knowledge and perspective, a powerful dialogue and learning environment is created.”</p> <p>End Report: “Because the CPTs were divided by product group, participants had similar challenges. This encouraged exchange [of information].”</p> <p>Whitepaper: “Communities of practice (CoP) create a unique learning network: participants learn together and inspire each other. Bottlenecks for progress are brought to light and practical solutions are shared [during workgroups].</p> <p>Process Report: “A structured report was taken of each CPT [Circular Procurement Team] session, ...”</p>
	N	<p>End Report: “The CPTs mostly had participants with little experience. This meant that only a few participants could already share concrete experiences.”</p>
Domestic Wood Heating	+	<p>Interviewee 1: “Yes indeed, the workgroups did studies and there was collaboration.”</p> <p>Intermediate Report: “..., three [clusters of work] are driven by a workgroup and one cluster by the steering group: - ... - Knowledge building - ... The implementation of the Green Deal is broadly on track.”</p>
Circular Construction	+	<p>End Report: “The learning lessons gained during the four years of Green Deal Circular Construction are numerous and can be divided into three categories: 1. The key learning lessons from each of the five Communities of Practice, where intensive work has been done on very concrete results ...”</p> <p>End Report: “Building on the Trial Garden report, the Communities of Practice explored how a demolition inventory can be a starting point for better urban mining. The CoP tried to connect and align the different aspects of urban mining and grew into a meeting place where knowledge sharing was central. The demolition inventory formed an anchor point that was fed with information from the following concrete projects, among others.”</p> <p>End Report: “In the Community of Practice Circular Procurement several concrete procurement files and legal or other questions were scrutinized.”</p> <p>End Report: Nevertheless, [in one CoP], we were able to valorize our knowledge exchange in five info sheets providing insights into the circularity, assets and points of interest, technical information, financial information and environmental impact of some change-oriented building solutions.”</p> <p>End Report: “In our CoP, presenting precursor cases was a great added value. Bottlenecks and possible solution paths were exchanged. This led to real knowledge sharing, both for the more and less experienced participants in the field of selective demolition, recycling and reuse.”</p>
	N	<p>Interviewee 2: “Part of what was done with the communities of practice went along with the research within the living lab. The intention was that what was achieved in the living lab was fed back or coordinated with the communities of practice and that they gave their findings and opinions on it in the communities of practice. In some areas it has succeeded, in some areas more feedback was expected.”</p>

		<p>Interviewee 3: “Still, it was sometimes very difficult to move forward with the group in the Communities of Practice. You actually have two choices. You can define a very clear end goal, a deliverable that you want to create with the group. Some of my colleagues have tried this route. This is very difficult because the attendees within a Community of Practice constantly varied, no one was bound to it. People also sometimes chose a different session or there was sometimes not yet enough knowledge and experience to draw from and build on. The second possible approach is the one I used for urban mining demolition and recycling. This was more of a free forum. In this, we simply had an agenda every time and exchanged some things. Then you also have to experience that it is non-committal and at the end you don’t have a result nor a fixed community.”</p> <p>End Report: “In addition, the group of participants varied a lot during the term. The open nature of this group made it difficult to build on the level of knowledge and experience acquired, which made participants less inclined to share their experiences and challenges in detail.”</p>
<b>Exogenous context</b>		
Shared Mobility	-	<p>Interviewee 1: “It is clear that participants value the knowledge exchange the most. You obviously have less of that during COVID.</p> <p>End Report: “Other actions were unsuccessful due to, among other things, the COVID pandemic (as a result, the organization of a share-scooter training course by the VSV was unsuccessful)”</p>
Circular Construction	+	<p>Interviewee 1: “The COVID obliged us to put much more effort into digital environment on the website with information about the Green Deal. We shared more, shared more online [because of COVID]. That must have had an effect. The recordings will also have made a difference somewhere.”</p>

*Translated from Dutch (except the Whitepaper)*

## APPENDIX G: Network establishment

**Table G.1 Performance network establishment**

<b>Network establishment</b>		
Shared Mobility	+	<p>Interviewee 1: “Without the Green Deal, certain parties would never have sat together. That was the strength of the Green Deal.”</p> <p>Interviewee 1: “The main thing that happened is that Autodelen.net, for example, built up a lot of contacts during the Green Deal. Those contacts, that credibility, you can continue to build on that. That remains.”</p> <p>Interviewee 2: “I do think there have been some great stories of collaboration, so in that sense, ‘Yes, there has been good collaboration’.”</p> <p>Interviewee 2: “Yes, I feel the network is still alive [after the Green Deal has ended].”</p> <p>Interviewee 3: “A network has been formed of parties that still find each other [after the Green Deal has ended].”</p> <p>End Report: “The 2019-2020 progress report showed that the Green Deal is mainly seen as a successful tool for collaborating with other organizations and publicizing the actions of signatories.”</p> <p>End Report: “It [the Green Deal] was also a useful tool for signatories ..., to get to know new partners and establish collaborations, ...”</p>

		<p>Intermediate Report 2019: “The Green Deal is not only an extremely useful tool to encourage organizations to take action, but also to connect partners from very different sectors.”</p> <p>Intermediate Report 2019: “The greatest added value of a Green Deal is the knowledge exchange and cooperation, [according to] 84% [of the respondents].”</p> <p>Intermediate Report 2019: “The Green Deal is very strong in connecting various groups that address opportunities and bottlenecks within a particular theme.”</p> <p>Interview VPO 6: “Biggest added value Green Deal is that people get to know each other, creating a network.”</p> <p>Website 1: “This Green Deal created unique and new collaborations that led to significant results on the ground.”</p> <p>Survey respondent 1: 10/10 bringing participants together  Survey respondent 2: 10/10 bringing participants together  Survey respondent 3: 8/10 bringing participants together</p>
	N	<p>End Report: “Some signatories reported that they were not always well informed about the ins and outs of the Green Deal or the other signatories. As a result, they missed out on potential collaborations.”</p>
Circular Procurement	+	<p>End Report: “The 'community' built during the Green Deal Circular Procurement (GDPC) was considered the greatest added value by participants. Thus, focusing on networking moments paid off. It also led to concrete collaborations.”</p> <p>End Report: “The network of more than 100 circular purchasers, 50 facilitators, and 50 circular providers created in the Green Deal Circular Procurement (GDPC) was appreciated by participants as a great asset.”</p> <p>Intermediate Report: “The 'community' built up thanks to the GDPC is considered the biggest added value: the large network of buyers and facilitators interested in circular procurement. Through the GDPC, many new contacts have been made and new collaborations are emerging, both between buyers and between buyers and facilitators.”</p> <p>Process Report: “[The Green Deal created] a community of more than 100 circular purchasers in Flanders who, now, know each other and can contact each other for all questions on circular purchasing.”</p> <p>Process Report: “Providers found it interesting to gain insight into other providers' offerings and to network with them.”</p> <p>Survey respondent 1: 9/10 bringing participants together  Survey respondent 2: 9/10 bringing participants together</p>
Companies and Biodiversity	+	<p>Interviewee 1: “In the sense of the original Green Deal spirit, it has been a successful set-up, as it [the Green Deal] really did involve collaboration between the business community and the government.”</p> <p>Interview VPO 1: “It is undeniable that Green Deals bring people together and inspire some to go one step further.”</p> <p>Survey respondent 1: 8/10 bringing participants together  Survey respondent 2: 10/10 bringing participants together</p>



Domestic Wood Heating	+	<p>Interviewee 1: "Because of this Green Deal, we have effectively made a lot of progress with the sector, with the companies, on knowledge collection and collaboration."</p> <p>Interviewee 2: "[The Green Deal was successful because of] The amount of cooperation with civil society stakeholders, which sometimes stand perpendicular to each other. ... I do not know of any other Green Deal where they sat around the table with conflicting parties in that way and still looked for solutions together."</p> <p>Interviewer: "So, was there also some kind of network created then?"</p> <p>Interviewee 2: "Yes."</p> <p>Survey respondent 3: 8/10 bringing participants together</p>
Circular Construction	+	<p>Interviewee 1: "People were already working on the topic of circular construction, but this was very scattered. The Green Deal has brought these actors together much more. It has put people in touch with each other."</p> <p>Interviewee 1: "With the Work Agenda [the follow-up program], we got people back together without any problem. We had more than 200 registrations. ... It was nice that the network was not lost ... [after end of the Green Deal]"</p> <p>Interviewee 2: "Surely, we managed to bring the network together. So, we did manage to make a real difference."</p> <p>Interviewee 3: "You [organizers of the Green Deal] bring like-minded people together: people with experience, people who want to move forward, who want to exchange knowledge and experiences."</p> <p>Interviewee 3: "To be clear, I think the Green Deal Circular Construction is very successful because of the network that has been built, ..."</p> <p>Interviewee 3: "I think a lot of contacts were made and a lot was exchanged... This is classic networking: you know someone, you call them once, you get an e-mail, and you can get going."</p> <p>End Report: "The networking opportunities during the first and last year proved to be of great value."</p> <p>End Report: "This Green Deal has gathered all the partners, and with that strong network, ..."</p> <p>End Report: "Participants also indicated that the Green Deal Circular Construction increased their networking within the domain [of circular construction] over the years."</p> <p>End Report: "I think it is wonderful that supply and demand have come together strongly in the network."</p> <p>Survey respondent 2: 9/10 bringing participants together</p>
Sustainable Urban Logistics	+	<p>Interviewee 4: "And nice collaborations have come out of that [Green Deal]. So, it is more about creating a kind of long-term network. And that is also what the companies want. They would prefer to continue doing things with that network."</p> <p>Interviewee 4: "Companies came along and talked to each other, some of which they did not know were relevant [in the context of sustainable urban logistics]. Then, companies thought about whether they can do something together and what that might be. That is also one of the great things that comes out of it [the Green Deal]."</p>

		<p>End Report: “She highlighted the importance of cooperation within the chain and [highlighted] that it is essential to build trust between actors for this purpose. Networks such as that of the Green Deal Sustainable Urban Logistics can play an important role in this regard.”</p> <p>Survey respondent 1: 10/10 bringing participants together          Survey respondent 3: 10/10 bringing participants together          Survey respondent 4: 6/10 bringing participants together</p>
	N	<p>Interviewee 1: “You mainly work with a number of pioneering players who were actually going to do that anyway and mostly knew each other anyway.”</p> <p>Interviewee 3: “That is why networking is super important. But there's definitely room for improvement.”</p>

*Translated from Dutch*

**Table G.2 Factors network establishment**

LinkedIn group		
Circular Procurement	+	Whitepaper: “For the Flemish Green Deal Circular Procurement, ... a closed LinkedIn group allowed for swift sharing of information and interaction with and between participants.”
Circular Construction	+	End Report: “A final important aspect is the participatory aspect [of the Green Deal]. The community that grew in this learning process helped each other to make the circular change. This happened both during the physical networking moments at the action days and online, in the LinkedIn group.”
	N	Interviewee 3: “... it [the LinkedIn group] is not a living community at the moment.”
Plenary event		
Shared Mobility	+	<p>End Report: “Shared Mobility Rocks immediately represented an opportunity to bring all signatories together again, create buzz around the Green Deal again, and present the preliminary findings.”</p> <p>Intermediate 2018: “To allow the network of new partners to also physically meet and exchange experiences, a return day was organized in September by the coordination team on 7/9/2017 at Arteveldehogeschool.”</p>
	+	<p>Interviewee 1: “Afterwards, x number of events were organized. So, for us, that was always a piece of content, networking, giving examples.”</p> <p>End Report: “The inspiration and action days are a successful format for bringing large groups of participants together in a learning network.”</p> <p>End Report: “Within the Green Deal Circular Procurement, buyers and suppliers were therefore brought into contact with each other, with a focus on getting to know each other, interaction, and dialogue.”</p>
Companies and Biodiversity	+	Interviewee 2: “We organized several study days, also an information market and each time invited speakers who knew something about the topic of biodiversity. We also organized field visits where there was, of course, already something to see. So, on the one hand, these initiatives [both study days and field visits] were intended to share knowledge and, on the other hand, to network. We saw that it was very valuable to do the combination of the two.”
	N	Interviewee 2: “In addition, we could have organized even more and networked even more, bringing people together. Now the number of events was still fairly limited.”

Circular Construction	+	<p>Interviewee 3: "I think the action days absolutely succeeded in their goal of bringing people together, getting people excited, and transferring knowledge."</p> <p>End Report: "I think it is wonderful that supply and demand have come together strongly in the network. It is especially seeing each other on action days that has contributed to this."</p>
Sustainable Urban Logistics	+	<p>Interviewer: "We have read that there were thematic and networking events. Can you give more info on that, what the purpose of it was and whether it succeeded in achieving that purpose?"</p> <p>Interviewee 2: "I can't say too much about it. I didn't participate in all of them myself due to lack of time. Partly, it definitely succeeded. Because that can really inspire and bring people together."</p> <p>Inspiration Guide: "At networking events, new participants introduce themselves and their actions. Existing participants can also ask each other questions and share calls. In this way, concrete collaborations emerge.</p> <p>Intermediate Report 2020: "In addition, five effective collaborations between participants emerged from networking at our events. ..."</p>
<b>Site visit</b>		
Companies and Biodiversity	+	<p>Interviewee 2: "We organized several study days, also an information market and each time invited speakers who knew something about the topic of biodiversity. We also organized field visits where there was, of course, already something to see. So, on the one hand, these initiatives [both study days and field visits] were intended to share knowledge and, on the other hand, to network. We saw that it was very valuable to do the combination of the two."</p>
Sustainable Urban Logistics	+	<p>End Report: "We started on the 13<sup>th</sup> of February with a company visit to DHL Express at the Blue Gate site in Antwerp. Participants were given a guided tour and DHL representatives answered questions very openly. After the visit, we crossed the street to continue networking ..."</p>
<b>Webinar</b>		
Shared Mobility	N	<p>Interviewee 3: "Webinars are good tools for sending information quickly. But regardless of all the methodologies you can use, a webinar does allow people to hide. And you never experience the dynamics of a physical workgroup during a webinar anyway, it would just be an illusion to think that you do. I think a very conscious choice has to be made. And we currently do far too little within client projects. For a knowledge outreach goal, you can do it digitally, but for co-creation, I think it is best to do it physically because it is all about people and about human contact."</p>
<b>Website specific</b>		
Circular Procurement	N	<p>End Report: "The chosen learning platform proved less suitable for online interaction between the participants."</p>
Circular Construction	+	<p>End Report: "Thanks to the Green Deal, I found my partners for a circular pilot project. Through the Flanders Circular website, I was able to look them up and contact them."</p>
<b>Workgroup</b>		
Shared Mobility	+	<p>Interviewee 1: "It is hard to say what the concrete output of that workgroup [on center cities] is, but those people got in touch with each other, and they continue to contact each other if they have a problem."</p> <p>Intermediate Report 2019: "Networking between partners and addressing bottlenecks is mainly done through the thematic workgroups of the Green Deal Shared Mobility."</p>
Circular Procurement	+	<p>End Report: "The Circular Procurement Teams contributed greatly to strengthening the network between the participants."</p>

Domestic Wood Heating	+	Interviewer: “Were there during these workgroups also collaborations?” Interviewee 1: “Yes, indeed. There were collaborations [during the workgroups].”
Circular Construction	+	Interviewee 3: “However, I think this group of people [from the community of practice] actually still exists, but not formally. I do think that, today, you could still ask, say, the 20 people who were in a community to exchange ideas about urban mining and they would come. That community still exists informally, but not formally. In urban mining, there were always 30, 40, 50 people present...”
	N	Interviewee 3: “... but some Communities of Practice, for example, on change-oriented business models, sometimes had only four or five people. So, you couldn't call that a real community.”
<b>Exogenous context</b>		
Shared Mobility	-	Interviewee 2: “The strength of a Green Deal is to let people meet, to bring people together, exchange. And that was just not possible through COVID, except with digital meetings.” Interviewee 2: “It was a shame anyway that the interaction during the large [in-person] events, was taken away by COVID.” Interviewee 3: “The strength of a Green Deal is to let people meet, to bring people together, to exchange. And that was just not possible because of COVID, except with digital meetings.”
Circular Construction	-	End Report: “I think it is wonderful that supply and demand have strongly met in the network. Especially seeing each other at action days has contributed to this. I notice, then, that the COVID-19 crisis stopped this.” End Report: “By necessity, the Green Deal Circular Construction ran entirely online for two years [due to COVID]. Both in terms of organization and content, this ran very smoothly, and participants were satisfied. Of course, the dynamics of a physical event are different. The spontaneous networking, essential to form partnerships on an innovative theme like circular construction, was missing [due to COVID].”
Sustainable Urban Logistics	-	Intermediate report 2021: “After a year of online events [due to COVID], participants are looking forward to being able to get back together physically to network more strongly.”

*Translated from Dutch (except the Whitepaper)*

## APPENDIX H: Policy stimulation

**Table H.1 Performance policy stimulation**

<b>Policy stimulation</b>		
Shared Mobility	+	Interviewee 2: After the second year, I think, the ‘Mobipunten’ came, which were actually also developed in this Green Deal, or at least announced by Autodelen.net and Taxistop. So, that interaction [with Flemish politicians] was also good.” Interviewee 2: “For example, in terms of charging infrastructure: the fact that Flanders [the Flemish government] was also involved in this Green Deal, has also partly caused the Flemish government to start thinking about a zero-emission premium for car sharing.”  End Report: “... and formulated recommendations towards policy. As a result, this Green Deal has had a solid impact on mobility policy in Flanders.” End Report: “In addition, the Green Deal was also seen as adding value by highlighting bottlenecks to the Flemish government ...” End Report: “Local authorities were heavily involved within the Green Deal and the Flemish government was also present in its role as project facilitator within the steering committee. The cooperation and information flow between the administration, initiators, and signatories was, therefore, seen as positive.”

		<p>Intermediate report: “The signatories like to stay abreast of what is happening at the policy level and see the Green Deal as an ideal tool to achieve collaborations within mobility policy.”</p> <p>Website 1: “The final report shows that most signatories ... have many recommendations for mobility policy as well as for the Green Deal instrument.”</p> <p>Survey respondent 1: 10/10 formulating policy recommendations, 10/10 pursuing legislative changes  Survey respondent 2: 7/10 formulating policy recommendations, 7/10 pursuing legislative changes  Survey respondent 3: 8/10 formulating policy recommendations, 3/10 pursuing legislative changes</p>
	N	<p>End Report: “Some signatories indicate that there could have been more frequent consultations with policymakers.”</p> <p>End Report: “Nevertheless, (more) regular consultation with the cabinet of mobility would have been welcome for many signatories, as would a clearer definition of the government's commitment within the Green Deal. In short, better political representation and a better link to the political level would have increased the Green Deal's impact.”</p>
Circular Procurement	N	<p>Interviewee 2: “There were recommendations formulated [in the Green Deal], but I think that was mainly towards buyers themselves and the market. I don't know if that was towards central [policy-making] governments. The recommendations were mainly towards buyers, procuring governments and not so much towards policy-making governments. I don't think focusing on policy would have changed much.”</p> <p>Survey respondent 1: 6/10 formulating policy recommendations, 5/10 pursuing legislative changes  Survey respondent 2: 5/10 formulating policy recommendations, 4/10 pursuing legislative changes</p>
Companies and Biodiversity	N	<p>Survey respondent 1: 4/10 formulating policy recommendations, 6/10 pursuing legislative changes  Survey respondent 2: 5/10 formulating policy recommendations, 5/10 pursuing legislative changes</p>
Domestic Wood Heating	+	<p>Interviewee 2: “There was a legislative framework [ready] for replacement policy linked to a sales moment or a change of lease. These moments seemed the easiest and least invasive to us. This proposal even included a take-back obligation and included how you are going to make sure that a stove is taken out of service.”</p> <p>Interviewee 3: “Based on all the preparatory work within the Green Deal, we have certainly written more than 10 cabinet memoranda with proposals on regulations.”</p> <p>Interviewee 3: “In essence, it [the Green Deal] was a good means to build knowledge and carry out policy preparatory work.”</p> <p>End Report: “For the vision development, a concept note had been developed in the first half of the Green Deal, containing a proposed approach for the vision development [by the Flemish government].”</p> <p>Survey respondent 3: 9/10 formulating policy recommendations, 9/10 pursuing legislative changes</p>
	N	<p>Interviewee 3: “The Green Deal ended in 2022. Then, we [the organizers] decided not to renew the Green Deal because, at the end of the day, all that needed to be done was to implement those policies. So, me and my colleagues felt that that was a job for the government administration rather than for the stakeholders.”</p> <p>Interviewee 3: “The final stage, where the politics had to make decisions, remained unfinished.”</p>

		<p>Interviewee 3: “The political level failed. ... That [translating this preparatory work into actual legislation] never actually succeeded. Either the government said no or there were sister organizations that did not want to get involved. There was always a ‘no’ somewhere.”</p> <p>Interviewee 3: “You can discuss it well with colleagues and experts. But if you go to a higher level [the Flemish government], then at some point, it stops. The story stops again and again. So, I don't think the Green Deal could have done more about that further. That is independent of the Green Deal. We have also often raised it at the highest level with, for example, the executives of the VECA, with the chief of cabinet, with the minister.”</p> <p>End Report: “To date, no political choices have been made regarding these policy proposals.</p> <p>End Report: “With the achieved results of the Green Deal, the building blocks have been laid for the further elaboration and implementation of concrete policy proposals. Political decisions on this have not yet been taken.”</p> <p>End Report: “Achieving the operational targets by 2030 requires, in the short term, the translation of the policy preparatory study work carried out under the Green Deal, into concrete policy and action on the ground. This translation is, currently, completely lacking.”</p>
Circular Construction	+	<p>Interviewee 1: “Without the Green Deal, we would be much less advanced: the Work Agenda Circular Construction would not exist, also the policy program would have received much less input.”</p> <p>End Report: “To create a clear framework and timeframe for the transition to a circular construction economy, the Flemish government was also looked at. Participants of the Green Deal Circular Construction were surveyed and encouraged to make their voices heard in the creation of the Policy Program 'Towards Circular Construction 2022-2030' and the Work Agenda Circular Construction. Besides formulating a circular vision of the future, both [programs] formulate ambitious action plans for the coming years.”</p> <p>Survey respondent 2: 7/10 formulating policy recommendations, 7/10 pursuing legislative changes</p>
Sustainable Urban Logistics	+	<p>Interviewee 1: “The Green Deal was also a sounding board for the Flemish government and that was, partly, because of those policy recommendations.”</p> <p>Interviewee 1: “Also because of the result of the process [of the Green Deal] we went through, whereby we were eventually able to propose those policy recommendations in the Flemish Parliament. I think this is very valuable.”</p> <p>Inspiration Guide: “As a sounding board for the Flemish government, the Green Deal formulates recommendations based on input from participating companies and local authorities. The Flemish government can improve the livability of its city centers by focusing now on emission-free city logistics. We formulate three recommendations with enormous potential: ...”</p> <p>Survey respondent 1: 9/10 formulating policy recommendations, 9/10 pursuing legislative changes</p> <p>Survey respondent 3: 6/10 formulating policy recommendations, 6/10 pursuing legislative changes</p> <p>Survey respondent 4: 8/10 formulating policy recommendations, 7/10 pursuing legislative changes</p>

*Translated from Dutch*

**Table H.2 Factors policy stimulation**

**Action of participant**

Shared Mobility	+	Interviewee 2: "Creating awareness was an important part of the actions, along with interacting with policy, because there were also a lot of local authorities participating in the Green Deal, intercommunal organizations, also the regional government."
Domestic Wood Heating	+	Interviewee 3: "We had also made significant progress with the policy actions, ..."  End Report: "The actions aimed at improving domestic wood combustion can be roughly divided into actions aimed at preparatory study research and actions aimed at developing concrete policy measures and instruments."
Sustainable Urban Logistics	+	Interviewee 1: "These actions were also a means of getting information from the participants. We wanted to find out what the obstacles and hurdles are that you encounter as a city or company that wants to work on sustainable urban logistics. We were then able to compile those obstacles properly at some point and make an overview of them. The next step was to work out the possible solutions. For this, we also started talking to all participants again and, eventually, translated these solutions into policy recommendations. So that was kind of the logic throughout the process."  Intermediate Report 2020: "Achieving sustainable urban logistics requires a combination of different types of actions. We see that the self-selected actions in this Green Deal focus on: ... - Sensible regulation and technological innovations."
<b>Research center</b>		
Circular Construction	+	End Report: "Parallel to the activities of the Green Deal Circular Construction, a scientific consortium called 'Proeftuin Circulair Bouwen' was active. This group [research center] linked existing research to the field experience from pilot projects, to develop substantiated policy and practical recommendations."
<b>Workgroup</b>		
Shared Mobility	+	End Report: "A group of several signatories examined a number of challenges in this workgroup in order to facilitate the electrification of shared mobility. ... Concrete achievements from the workgroup are: - Drafting a vision on electric shared mobility; ... - Thorough input to the Flemish government on the role of electric cars at Hoppin points and on the drafting of the concept note on charging infrastructure 2020-2025;... - Breakthroughs in the placement of public charging poles at station-based car-share parks through shared insights between governments and car-share organizations;"  End Report: "... but, at the same time, they [workgroups] were also used to provide concrete bottlenecks and recommendations to the Flemish and federal policy level."
Companies and Biodiversity	N	Interviewee 2: "Especially through the workgroups, we could have done even more. We could have gone even deeper within these workgroups and worked more around policy."
Domestic Wood Heating	+	Intermediate Report: "..., three [clusters of work] are driven by a workgroup and one cluster by the steering group: - ... - Vision development... The implementation of the Green Deal is broadly on track."
<b>Current regime</b>		
Shared Mobility	+	Interviewee 1: "It is also because of the presence of non-profit organizations like Autodelen.net and MPact and a fairly compact ecosystem [in Flanders] that we can [easily] talk to cabinets and get it on their agenda. In countries like France and Germany, this is much more difficult. There, you need strong lobby organizations. With us, the strength lies often with small civil society organizations and because of that, we have managed to get shared mobility to a very high policy level. That is the strength Flanders can have after every Green Deal."  Interviewee 3: "The advantage was that there wasn't very much regulation around shared mobility yet and that responsibility lay mainly locally, with the local authorities. We did manage to help those local authorities [to change policy], through the Green Deal."
Domestic Wood Heating	-	Interviewee 3: "The policy level was difficult. Everywhere, wood burning is a very sensitive issue because you directly involve citizens. Opinions are very polarized and radicalized."

**Exogenous context**

Domestic Wood Heating	-	Interviewee 3: “On the other hand, the timing was also unfortunate in the moment we entered that energy crisis. Those prices exploded and just before that, we had received the green light from the cabinet to work out those regulations on the phase-out in concrete terms. Then came the energy crisis at the end of 2021 and then, suddenly, we were not allowed to work further [on the regulations].”
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*Translated from Dutch*

## APPENDIX I: Sustainability improvement

**Table I.1 Performance sustainability improvement**

**Sustainability improvement**

Shared Mobility	+	<p>Interviewee 1: “We had to have 80,000 car sharers at the end of the Green Deal, I think it was 160,000 at the end. In any case, it was more than 80,000. These were concrete results.”</p> <p>Interviewee 1: “I think the Green Deal ensured that more infrastructure has been put in place: definitely more shared vehicles, more charging infrastructure. When the Green Deal started, electric driving was hardly mentioned. It was already in the Green Deal's objectives, but we didn't put a concrete figure on it because electric driving was still considered irrelevant or only a distant concern.”</p> <p>Interviewee 3: “... more supply has been created, there are just more shared vehicles on the streets, and also in other places. Because, in the beginning of the Green Deal, shared mobility was really something of the center cities but now we see that, also in rural areas, there are more activities around shared mobility. Even within companies, we do see an uptake.”</p> <p>End Report: “Three of these targets [i.e., the four objectives of the Green Deal] were successfully achieved at the end of this Green Deal. In spring 2021, the state of play was as follows:</p> <ul style="list-style-type: none"> <li>- 80,000 car-sharing users: The 2020 annual report of Autodelen.net reports 82,000 car-sharing users in Flanders. Compared to the total number of car-sharing users at the start of this Green Deal (approx. 20,000), we can speak of a fourfold increase.</li> <li>- Doubling the number of companies taking at least 1 car-pooling measure (1000): This objective was not achieved. For concrete figures on the number of carpoolers, we will have to wait until the new edition of the Federal Commuting Diagnostic Survey. The Travel Behavior Survey (OVG) does show (pre-COVID) an increase in car occupancy rates for commuting. ...</li> <li>- 400,000 bike sharers: At the end of 2019, the number of bike sharers stood at about 445,065. ... At the end of 2020, this allowed us to record a total of 430,042.</li> <li>- Five-fold increase in electrically shared cars and there is a regular supply of electric share bikes: Electric car sharing has made huge progress. At the end of 2019, we could write down 363 electric shared cars; a year later, the counter stands at 571, an increase of almost 60%. This is 15 times the number at the start of this Green Deal.”</li> </ul> <p>End Report: “We can truly speak of success [of the Green Deal Shared Mobility]. Despite not fully achieving the carpool target, we can certainly say that shared mobility has taken a big leap forward since 2017.”</p>
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		<p>Survey respondent 1: 8/10 high number of participants have taken action/made sustainable changes after the Green Deal</p> <p>Survey respondent 2: 10/10 high number of participants have taken action/made sustainable changes after the Green Deal</p> <p>Survey respondent 3: 7/10 high number of participants have taken action/made sustainable changes after the Green Deal</p>
	N	<p>Interviewee 1: "I can only say, what didn't work out so well was carpooling. That was also difficult to measure. We were dependent on federal diagnostics of commuting because the timing did not match the Green Deal. We fell short in getting the right partners around the table to make a big difference in terms of carpooling."</p>
Circular Procurement	+	<p>Interviewee 2: "I am convinced that the organizations that participated have continued in that [using circular procurement techniques] and that, in new procurement processes after 2019, they [participating organizations] will still have that mindset and think about how to make things as circular as possible."</p> <p>End Report: "The demand that circular procurement creates for circular products and services is a clear lever for the transition to a more circular economy."</p> <p>Whitepaper: "The procuring participants and suppliers confirmed that the Flemish market for circular products and services has grown."</p> <p>Survey respondent 1: 7/10 high number of participants have taken action/made sustainable changes after the Green Deal</p> <p>Survey respondent 2: 8/10 high number of participants have taken action/made sustainable changes after the Green Deal</p>
	N	<p>Process Report: "It is not possible to precisely identify the real impact on the market."</p>
Companies and Biodiversity	+	<p>End Presentation: "Results [of biodiverse design of business parks]: 35% finished = 768 ha; 65% in execution = 1.431 ha; 0,5% didn't start/no information = 11 ha"</p> <p>Intermediate Report: "The Green Deal Companies and Biodiversity thus ensures an effective increase of biodiversity value on business parks."</p> <p>Survey respondent 1: 7/10 high number of participants have taken action/made sustainable changes after the Green Deal</p> <p>Survey respondent 2: 8/10 high number of participants have taken action/made sustainable changes after the Green Deal</p>
Domestic Wood Heating	+	<p>Interviewer: Are there sustainability improvements realized within the Green Deal through, for example, the companies?</p> <p>Interviewee 2: "Yes, but we don't have figures on that. ... But it is clear that there are some companies that do actually translate that message [i.e., stoking wood should be done correctly] to their customers. Like, 'We will give you a course on wood burning when you buy a stove', such that they [customers] learn how to properly use a stove."</p>

		End Report: "With regard to operational objective 1 ( $\geq 50\%$ emission reduction between 2016 and 2030), it can be indicated that, according to the VMM's officially reported emission figures, particulate matter emissions from domestic wood combustion (PM2.5) decreased from 6107 tons in 2016 to 4423 tons in 2020 (28% reduction)."
	N	Interviewee 3: "I might as well give 0 [score for the Green Deal on 100] because the operational target* was simply not met." *“1) At least 50% reduction in emissions from domestic wood burning between 2016 and 2030 2) At least 50% decommissioning of obsolete wood burning appliances by 2030 (with target of 100%) 3) 100% collection of decommissioned wood-burning appliances by 2030. 4) Improved monitoring of wood consumption and composition of the wood combustion stock. 5) Improved inventory of emissions from domestic wood combustion. 6) (Additional) conditions and instruments on installation, maintenance, enforcement and use of wood combustion appliances.”  Survey respondent 3: 1/10 high number of participants have taken action/made sustainable changes, 1/10 high number of participants have taken action/made sustainable changes after the Green Deal
Circular Construction	+	End Report: "The extent to which circular construction was put into practice also increased."  Survey respondent 2: 6/10 high number of participants have taken action/made sustainable changes, 7/10 high number of participants have taken action/made sustainable changes after the Green Deal
	N	Interviewee 1: "We don't have numbers. We don't have information. We have a blind spot."  Interviewee 2: "I don't think a baseline measurement has been done. We have not been able to see where we are after four years. We have not set quantitative targets. We have not set any requirements for the participants as to how circular they should be after four years [of Green Deal execution]."
Sustainable Urban Logistics	+	Interviewee 4: "Because of the Green Deal, there have been many companies that have gone green by greening their car fleet."  Survey respondent 1: 9/10 high number of participants have taken action/made sustainable changes, 8/10 high number of participants have taken action/made sustainable changes after the Green Deal Survey respondent 3: 7/10 high number of participants have taken action/made sustainable changes, 5/10 high number of participants have taken action/made sustainable changes after the Green Deal Survey respondent 4: 10/10 high number of participants have taken action/made sustainable changes, 10/10 high number of participants have taken action/made sustainable changes after the Green Deal
	N	Interviewee 2: "What is the real impact of the Green Deal?' Actually, it is limited. Because for example BPost, Delhaize, and the City of Ghent are doing that [i.e., changing their way of working to a more sustainable way] anyway. They are working on it."

*Translated from Dutch (except the Whitepaper)*

**Table I.2 Factors sustainability improvement**

Action of participant		
Shared Mobility	+	<p>Interviewee 2: "In 3-4 years, it [car sharing in Ghent] has tripled or quadrupled [because of an action of the city of Ghent]. This was also because of the Solva project, where they were able to add so many new car-sharing vehicles, .... Those are nice earnings."</p> <p>End Report: "Both the actions of the signatories and the efforts of the workgroups contributed to making shared mobility increasingly important in Flanders, increasing the number of bicycle and car sharers, increasing the number of electric shared vehicles and increasing the number of carpool initiatives."</p> <p>End Report: "... there was also a huge commitment to electrification. Many of the share vehicles implemented are electric. ... Eleven signatories ... are taking action to improve charging infrastructure or to improve the user-friendliness of electric driving."</p>
Circular Procurement	+	<p>Interviewee 2: "I think, out of 150 [participants], the majority did manage to bring two circular procurement projects to completion. So, I think there are definitely sustainability gains there."</p> <p>Content Report: "More than 110 procurement projects and 63 support projects were realized during the Green Deal Circular Procurement period. It is not possible to precisely map the real impact on the market, but this is certain: through these projects, the market of circular products and services in Flanders were seriously enhanced."</p>
Companies and Biodiversity	+	Intermediate Report: "24.7% of all actions have already been completed, 51% of all actions are ongoing, 24.3% of all actions are yet to be launched. Examples of actions include ..., creating flower meadows, pilot project on exotic species control, ..."
	N	Interviewee 2: "With some [participants], you also have to be careful not to greenwash. Because some people think they are doing a good job if they put up an insect hotel or a few nesting boxes. However, this is more greenwashing than good actions. We didn't really have control over this. We did notice these [greenwashing actions] in the [award] competition, which anyone could enter. Participants then had to send in their actions. We then found that, for example, an insect hotel didn't really count."
Circular Construction	+	<p>End Report: "THEME [of the projects during the Green Deal] (multiple themes per project possible) Social, temporary ...; Sensibilization; Leverage: legal, financial ...; Data &amp; tools, LCA &amp; LCC; Urban mining, selective demolition ...; Circular materials &amp; building systems"</p> <p>End Report: "Several projects from the Green Deal Circular Construction can be linked to those activities. ... 'Bruil' placed a 3D-printed house with concrete on the Camp C site. Several projects were also set up around system solutions and modular construction. 'Juunoo' developed modular and demountable interior walls."</p>
Sustainable Urban Logistics	+	<p>End Report: "The 49 participants created 79 unique actions that contribute to more sustainable urban logistics."</p> <p>Intermediate Report 2020: "The participants together registered 60 new actions to increase efficient and emission-free delivery of Flemish cities."</p>
Workgroup		
Shared Mobility	+	End Report: "Both the actions of the signatories and the efforts of the workgroups contributed to making shared mobility increasingly important in Flanders, increasing the number of bicycle and car sharers, increasing the number of electric shared vehicles and increasing the number of carpool initiatives."
Domestic Wood Heating	+	Intermediate report: "..., three [clusters of work] are driven by a workgroup and one cluster by the steering group: - Improving domestic wood heating ... The implementation of the Green Deal is broadly on track."
Current regime		

Sustainable Urban Logistics	-	<p>Inspiration Guide: "... 3. The absence of charging infrastructure for freight: Deploying electric vehicles in logistics quickly becomes a challenge when there are too few public charging stations for logistics vehicles."</p> <p>Website 1: "Indeed, innovating in urban logistics is not self-evident. ...also, because different actors (transporters, local authorities and recipients of goods) often have conflicting interests."</p>
<b>Exogenous context</b>		
Shared Mobility	+	<p>End Report: "Three of these targets [i.e., the four objectives of the Green Deal] were successfully achieved at the end of this Green Deal. In spring 2021, the state of play was as follows:- ... - 400,000 bike sharers: At the end of 2019, the number of bike sharers stood at about 445,065. Due to the Covid-19 pandemic, this number initially experienced a decline, because of the prohibition on non-essential travel and the obligatory telework that persisted for more than a year. Nevertheless, the number of bicycle sharers was able to rise. On the other hand, more people got on their bikes precisely because of the pandemic. At the end of 2020, this allowed us to record a total of 430,042 bike sharers - ..."</p> <p>Interviewee 1: "I think the fact that money was cheap during the Green Deal also played a part. Currently, interest rates are a lot higher, and you see a lot of acquisitions in the sector. However, during the Green Deal it was cheaper to invest than now. That also made it easier, I think. Maybe that is why the Green Deal has been such a success [in terms of investment in shared mobility], despite the fact that there were limited budgets to do projects before: simply because money was cheap."</p>
	-	<p>End Report: "Three of these targets [i.e., the four objectives of the Green Deal] were successfully achieved at the end of this Green Deal. In spring 2021, the state of play was as follows: ... - Doubling the number of companies taking at least 1 car-pooling measure (1000): This objective was not achieved. ... The COVID pandemic of 2020-2021 and associated waiver measures undoubtedly had an impact on not achieving this target. - 400,000 bike sharers: At the end of 2019, the number of bike sharers stood at about 445,065. Due to the COVID-19 pandemic, this number initially experienced a decline, because of the prohibition on non-essential travel and the obligatory telework that persisted for more than a year."</p>
Sustainable Urban Logistics	+	<p>Interviewee 3: "There was COVID. Therefore, there were more bikes and cargo bikes [to make deliveries]. That went well during the Green Deal. So now, we see a lot more companies using bikes to make deliveries."</p> <p>Interviewer: "Was COVID completely positive or did it also have a negative side?"</p> <p>Interviewee 3: "I would say more positive. It has had a very big impact on e-commerce. And it makes you think about how you are going to organize in a sustainable way. Because sustainability was also an important trend during the COVID period. So, it [the Green Deal] goes together."</p>

*Translated from Dutch*

## APPENDIX J: RECOMMENDATIONS FACTORS

**Table J.1 Personal guidance**

Personal guidance	
Shared Mobility	Interviewee 1: "When you are with 100 signatories, you cannot take every participant by the hand. You work with organizations that are mature. Participants' trajectories may also differ. There may be organizations that need more guidance but there are also organizations that just do their own thing. It is important though that, as a leader, you know what each organization is doing. If an organization is just doing something on its own and the experience is not shared, it is

	<p>irrelevant that that action is part of the Green Deal. In a Green Deal, many different small parts should contribute to a larger whole because that strengthens the Green Deal, because that inspires, because that way you can learn from mistakes, ..."</p> <p>Interviewee 3: "Individual support could certainly be given but then you are again on a thin cutting edge because to what extent is it then up to the initiators to guide participants individually? Is external advice needed then? I don't know. There is a risk in that the Green Deal very quickly becomes a closed group where advice is given. We are in a commercial market. There has to be budget for support among the various parties."</p>
Companies and Biodiversity	<p>Interviewer: "Was there personal guidance for the participants throughout their journey for the actions they had to take?"</p> <p>Interviewee 2: "No, actually they were not personally guided. If they had any questions, of course they could come to us, but it was not our intention to guide them personally. After all, we didn't have the resources to do this."</p> <p>Interviewer: "Looking back on this, do you think there was a need for this or was the approach good in terms of personal guidance and support?"</p> <p>Interviewee 2: "Of course, it is always better if you can do even more. However, this Green Deal also consisted of four initiators, and we basically just took the Green Deal on top of it [our existing work]. We didn't get extra resources to put extra people on it."</p> <p>Intermediate Report: "Ways to also encourage SMEs and companies with a less good initial situation to get started with biodiversity and business parks could be points of attention for a possible follow-up trajectory. Incentives can be provided by, for instance, more tailored advice, ..."</p>
Sustainable Urban Logistics	<p>Interviewee 1: "There was very little room for coaching and guidance during this process with those companies. When formulating the action, there was contact, but after that it was a lot of collective work. So, I would advise even more coaching and guidance of those companies in realizing their actions during the process."</p> <p>Interviewee 3: "I compare it to what we do within the Brussels Green Deal. We also provide individual follow-up for each member [in the Brussels Green Deal] and that is super useful. Otherwise, you formulate different commitments or engagements, and you see the different members at the events. But it is harder to see how the Green Deal lives within the companies. That is definitely an important point."</p> <p>Interviewee 4: "If I had to do it [the Green Deal] again, I would visit them [participants] more often. I would really personally visit participants at least once a year from the second year onwards. I would give more one-on-one guidance and follow-up. But that requires a lot of effort. Then you really need other [larger] budgets. Now there were a few dozen companies anyway. First of all, you have to plan it and then, you have to visit them all. Then half a day passes quickly. I have never thought about it so concretely before, but I think it [one-on-one guidance] would certainly not be a bad idea. Then you have a different conversation. Then you also feel more what they [participants] want and what they are doing, and you can respond to that. You might then be able to make connections with other companies that haven't been made now."</p>

*Translated from Dutch*

**Table J.2 Plenary event**

Plenary event	
Circular Procurement	Interviewee 1: "What was nice is that the events happened in different locations around the country. There was one in Ghent and one in Kortrijk. Because a participant from West Flanders is not always inclined to come to Brussels for an event lasting a few hours. I thought that was a good thing."

	<p>End Report: "Provide a progressive line in the learning pathway so that participants feel they are making progress."</p> <p>End Report: "By varying location for the these days [plenary events], you increase accessibility for participants."</p> <p>End Report: "A good Buyer meets Supplier event requires thorough preparation and commitment from an entire team. This includes, among other things, drawing up a program, speaker management, finding partners and sponsors, a roadmap for logistics and organization, and drawing up and sending out communications."</p>
Companies and Biodiversity	<p>Interviewee 2: "It is also important to keep going for truly inspiring examples [on the plenary events] so that you can provide something interesting to everyone. It is also important to provide enough 'heavyweights' in terms of speakers so that participants find them interesting and are motivated to come to the event."</p>
Sustainable Urban Logistics	<p>Interviewee 4: "So, you should actually bring speakers [for the thematic events] who are maybe not so mainstream. Someone, for example, from another country or from here. In this way, a theme is illuminated from different angles. That is important. And also, sometimes having a group discussion about it or questions and answers can help."</p>

*Translated from Dutch*

**Table J.3 Subsidy**

Subsidy	
Shared Mobility	<p>Interviewee 1: "I note that the Green Deal policy of the Flemish government is a bit ad hoc. For one Green Deal a subsidy fund is used, for another it is not. That comes across as a bit odd. It creates frustration [among organizers]. Maybe that frustration is unjustified, and the current policy is good. I am not sure. In any case, I think subsidies are needed to coordinate the Green Deal properly."</p> <p>Interviewee 1: "You do need good coordination and you need to know from the beginning how the Green Deal will be supported until the end. You need to have a clear plan for this, incorporating the resources that are available."</p> <p>Interviewer: "You talk about how funding for the organizers had an impact. Was there enough funding for the participants and what they wanted to do within the Green Deal story?"</p> <p>Interviewee 1: "No, there was not that kind of funding for participants. There have been Green Deals where there was also a grant fund distributed through the Green Deal. This is not a unified policy from Flanders, it is an ad hoc policy, per Green Deal. It would be better for the instrument to create a clearer vision around those subsidies."</p> <p>Interviewer: "Did you feel there was a demand from the participants for financial support?"</p> <p>Interviewee 1: "Not from everyone but some. Of course, we could then have perceived the Green Deal differently if there had been a grant fund that could be managed from the Green Deal."</p> <p>Interviewee 1: "I also don't know if you necessarily need funding from the participants to have a good Green Deal. ... However, subsidies for participants could have the wrong effect. Participants might join the Green Deal for the grants and not out of a commitment."</p> <p>Interviewer: "What do you think about a financial incentive for participants in general, so also those who don't set up experiments?"</p> <p>Interviewee 2: "I don't think that is a good idea. It [the Green Deal] is and remains a voluntary commitment. It has to be something that, as an organization, you get excited about and want to go for. I think that is actually the strength of a Green Deal: we go together, voluntarily, for something. But I find it important to have</p>

money for the extra costs of a living lab. Also, if you, for example, take on the commitment to lead and supervise a focus group and suppose you really have a lot of extra work serving the participants, then some financial support is allowed in return. But not for a participant's personal actions."

Interviewee 2: "The major flaw in the living labs was the limited budget. Actually, there was no budget. We are now of the opinion that the government should free up a certain annual subsidy pot for each Green Deal for pilots/living labs in that Green Deal. A number of conditions should then be attached to this: for example, at least 3 signatories should cooperate, the experiment should take place over one or two years, co-financing, etc. These subsidies are needed to stimulate experiments because this is very difficult."

Interviewer: "Are these subsidies then for participants to be able to free up time to experiment or effectively to buy things and so on?"

Interviewee 2: "Both. Time is very important: staff time. If you want to do a living lab, you need people working on that. In addition, you might need promotional materials, investment in a charging station, investment in a car-sharing system. So, both."

Interviewee 2: "If I had to talk about funding, I would provide some kind of basis for coordination. But funding for the innovation, the living labs, I would find even more interesting than just increasing funding for organizers."

Interviewee 3: "I think those are 2 different aspects. I would say, first, provide resources to do the start-up [of the Green Deal]. In addition, it would be even better if there were also resources for the projects. However, you have to watch out for grant hunters who could then set up a Green Deal to get some kind of core funding. So yeah, it is always a bit of a trade-off."

Interviewer: "You say there is a risk of organizations creating the Green Deal purely for funding. How could you avoid that problem?"

Interviewee 3: "I think it is important to test whether it really is a bottom-up story: that the parties have enough experience with the topic and have a large enough constituency to really do have an impact. And it [the Green Deal] really has to be something new, it shouldn't be anything existing. Suppose you have, e.g., a federation of bus companies that wants to set up a Green Deal to make bus companies more resilient towards the future. Then that is not a Green Deal, because that is the basic operation of that federation, it is something existing."

Interviewee 3: "'If you want to have impact, you need more budgets.' That is a reaction I get a lot, also in politics: on the one hand, people want a lot of impact but then budgets are needed because you have to compete with companies that spend millions on advertising. So yes, if you want to have an impact, budgets are needed. Otherwise, they remain very sympathetic initiatives."

Interviewer: "That, in turn, comes down to government funding?"

Interviewee 3: "Yes. I just opened the website with all the Green Deals for a moment. I see, for example, the Green Deal Protein Shift. We get huge advertising to eat more meat and we are encouraged to eat more Flemish pork. This is also all done with subsidies. If you really want to have an impact with the Green Deal Protein Shift, maybe you should transfer those subsidies to the Green Deal. Regarding the Green Deal Natural Gardens: you see advertising everywhere these days about fertilizers, you don't get advertising for natural gardening because people don't make money on that. So, if you want to have impact, that is where resources should go. That is right."

Interviewee 3: "Because in the beginning, it was a lot of tugging and pulling from the four organizers to get budgets [for organizers]. In the beginning, we didn't get compensation to start the Green Deal. And I believe that if we had resources to also help participants implement their commitment, we would have achieved even more results."

Interviewee 3: "Basic funding [for organizers] is important. There is a risk in not having basic funding. Then [if there is no basic funding for organizers], it [the Green Deal] is just an easy way for the government to achieve its own policy objectives. I think that if you meet policy objectives, there should be some budget in return."

	<p>End Report: "Few signatories (both inside and outside the coordination team) can implement quality and follow up on the Green Deal's actions and goals for four years without the necessary time and resources. Therefore, minimum funding and a clear budget plan is necessary for a Green Deal to have a solid impact. Finally, additional funding can ensure that more cooperation and co-creation can be stimulated among the signatories (via meetings or workgroups), in order to generate more innovation and thus make the Green Deal even more effective."</p> <p>End Report: "The lack of (financial) resources prevents some partners [participants] from attending events, meetings and gatherings, which often have an excessive time commitment. As a result, these organizations sometimes miss the opportunity to keep abreast of developments within the Green Deal. In addition, this also ensures that working groups, actions, and objectives are less likely to be followed up by organizers and signatories".</p> <p>End Report: "Nevertheless, we can formulate some areas for improvement of the Green Deal instrument. ... Furthermore, in several interim evaluations of the Green Deal (both in 2018 and 2019), the comment was made that financial support for the coordination team is really necessary to better follow up the Green Deal... It is a must to achieve good results within a Green Deal."</p>
Circular Procurement	<p>Interviewer: "Do you know if there was funding for both organizers and participants?"</p> <p>Interviewee 1: "For the organizers, yes, but not for the participants. But those participants could get grants at some point, because there was a call for that. That did create some traction as well. So, I would recommend it."</p> <p>Interviewee 2: "For what we did, I do not think the participants lacked resources. They received a training program. They received professional advice. If they [participants] would have had to do these things themselves or if they would have had to hire consultants for that, it would probably have cost them a lot more than just the time they spent on the Green Deal. They [participants] never had to pay registration fees [in the Green Deal]. They never had to pay for anything. When I see what boards or other organizations sometimes have to pay to take just one training course, I don't think there should be additional funds for the participants. Pure interest should be enough."</p> <p>Interviewer: "Because, sometimes, ambitious or big projects happen within the Green Deal, and I can imagine that financial backing helps to realize them?"</p> <p>Interviewee 2: "Yes, the question is: 'Should you get that from the Green Deal itself or should they see if there are other channels that serve that purpose?' Of course, I talk about what I am doing. But there are other grant channels that you would have to look at for that. Especially since a Green Deal is an instrument that addresses a lot of different themes, it seems difficult to me to then budget for it. It is needed for one Green Deal and not for another. I think you then have to get it from the channels that are there: Europe, Flanders, federal, provincial, ..."</p> <p>Interviewee 2: "If you want to take the Green Deal instrument seriously [you need financial support]... Because I know that it was the same story for the Green Deal Circular Construction: there was no [financial] support [for organizers]. For us as a trade body to pull along and have a facilitating role to those participants,... If there are no resources or working time in return, we don't get that organized in our planning."</p>
Companies and Biodiversity	<p>Interviewee 1: "Having even more time and space for it [the Green Deal] myself [would be an improvement]. However, it was not my full-time job. It is about allocating time. If you have more time as an organizer, you have more time to think about it [the Green Deal], go in-depth and do more in-depth research to see what the needs are. Then you also have more time to defend your policy to get more funding, for example, by writing memos. That all takes time and space."</p> <p>Interviewee 1: "We haven't really reached the whole classical business that wasn't already engaged in biodiversity, at least not to any great extent. They might have heard of it but then decided not to get involved if there were no more incentives. There were also fairly few SMEs among the participating companies."</p> <p>Interviewer: "Which carrots could convince those smaller or more traditional companies [to engage in biodiversity]?"</p> <p>Interviewee 1: "That is a good question. I think first and foremost of subsidies."</p>



	<p>Intermediate Report: "Ways to also encourage SMEs and companies with a less good initial situation to get started with biodiversity and business parks could be points of attention for a possible follow-up trajectory. Incentives can be provided by, for instance, ... enforcement or levies and subsidies. In this or another way, we will eventually reach not only the early innovators and adopters but also the late majority and perhaps the laggards."</p>
Circular Construction	<p>Interviewer: "So do you see a clear link between the funding and the commitment or effort put in by the participant?"</p> <p>Interviewee 1: "Definitely..."</p> <p>Interviewer: "So, does the financing of the projects really matter? Is this really a stumbling block?"</p> <p>Interviewee 1: "Usually, it is mostly about funding people who can make time for the projects."</p> <p>Interviewer: "So, is there more commitment to results for the projects that do have funding?"</p> <p>Interviewee 1: "It does get made more stringent. VLAIO pays out a certain tranche and expects reporting before you get the next tranche. You have the right to fail but you will have to have made an effort. You do have to be more accountable then. This is less free than the subsidy from Flanders Circular where there was more flexibility. VLAIO did have bigger budgets, which is important because the grant amount has to be balanced with the work you have to do in terms of reporting."</p> <p>Interviewee 1: "The voluntary aspect is not always a success, mainly because the work comes on top of it for all participants. There are few organizations where circular construction was part of their core mission. So, usually it was an extra task, no people were hired for it. Mainly because there was no funding. In projects that did get funded, it was a different story."</p> <p>Interviewee 2: "... ultimately the Green Deal is a voluntary commitment. If private companies, such as contractors and architects, have to cut back on resources and time, then this is done in the Green Deal. Ultimately, normal business operations are always going to take precedence over a voluntary commitment. You, as a participant, do make the commitment and you do stand behind the principles but at some point, the order of the day then takes precedence. If you receive financial support, you are more obliged to do what you set out to do. In principle, everyone had to organize a pilot project as a participant, but you notice that, in the end, not everyone did. You don't have a stick as an organizer either, you cannot make it compulsory. You notice that among those who had resources [for their projects], the initiatives succeeded and among those who did not have resources, they succeeded somewhat less. I think this is reality."</p>
Sustainable Urban Logistics	<p>Interviewee 1: "Perhaps it also helps should there be additional financial resources/opportunities for participants' actions. That is a bit double, because they might have planned to do it anyway. But on the other hand, not having money can also be a barrier. I'm not quite sure whether we should do it or not. But it is a consideration."</p> <p>Interviewee 1: "I was talking earlier about a grant that we [the organizers] had to go looking for to pay for coordination and we had to do that every year. So, we had to go looking for money four times. That is why, next time, I would make a file that runs from the first time over four years. Looking for funds in the meantime also creates a lot of uncertainty. Getting the support base right too. But we did. Otherwise, we wouldn't have had 28 participants."</p> <p>Interviewee 3: "If we [organizers] want to have more impact and demonstrate that impact to convince others that the Green Deal is good and the transition is important, we need more resources."</p> <p>Interviewee 4: "What you see then: the organizations that are not paid in a Green Deal can go to the steering groups and the meetings. You also do a certain number of actions but then I don't have days and days to study on that. Whereas now, in the other Green Deal, I can go to fairs, I can go to events, I can meet with companies, and I can do completely different actions than I could in this Green Deal [Sustainable Urban Logistics]. That is actually quite unfortunate. ... But I think it [more financial resources for the organizers] definitely would have been another added value."</p>

	<p>Interviewee 4: "But if we had more budget, I [an organizer] would put a bit more time into, not only visiting companies, but also looking abroad. We did that now with that event at the embassy which a lot of Dutch speakers attended. But that was more jumping on something that occurs. I would put more time into going to conferences and still making contacts there. Maybe, I would meet other speakers. Had there been money, maybe we would have done that extra."</p> <p>Interviewee 4: "I think there should be a minimum [budget]. Personally, because I am also in this other Green Deal Packaged Differently. ... But from the Green Deal Packaged Differently, I have nevertheless learned that initiators should at least put a quarter or a third of their time on that [the Green Deal] anyway, if you want to achieve some depth. That is actually the minimum. And I must honestly say that this Green Deal [Sustainable Urban Logistics] was underfunded for me. It has been a continuous search for budgets. We had to think all the time how we would do it in the following years. And, honestly, that is totally incomprehensible to me. The Green Deal is a government instrument. I think that if you are in a government and you ask companies to put time and resources into it, surely, one can expect a minimum budget from the government. ... What should certainly be standard, is the compensation of organizers for their time. That has been the only difficult thing I have found here. There was no bad intention, but there are periods where they [organizers] have a lot of work and little time. And then they start skipping meetings. That hasn't happened much, thankfully. But those are the risks. And I also think that, for a Green Deal with 4-year term, you should be able to tell them [the government] after two years, what you have learned. And then say, for example 'Now, we want to do pilot projects and we need so much [funding] for that. In this way, the instrument becomes a bit more dynamic."</p> <p>Interviewee 4: "We do a lot of pilot projects. We always provide a bit of budget for those pilot projects. The principle I use in that is that, if those [projects] are things that fall under their [participants'] normal operational costs, e.g., someone is already delivering parcels today and you are looking for a new way to deliver parcels, they would have delivered those parcels anyway, I'm not going to sponsor that with innovation budgets. But if something has to be developed specifically for that pilot project or there are extra costs involved, or something has to be rented, then it is nice that you [the organizer] can intervene in that for a bit. I think for this Green Deal, which had a lot of actions, a lot was around greening and avoiding mileage. There were less collaborative projects. I don't think it [extra budget] was necessary here. It would have been nice, though. But not necessary. We are thinking of launching a new Green Deal around corporate collaboration regarding urban logistics. That is much more complex. Then you have to link IT systems. That is where extra budget would be useful. So, it would have been welcome, but I haven't experienced it as a problem or I haven't received a lot of demand from companies."</p>
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*Translated from Dutch*

**Table J.4 Workgroup**

<b>Workgroup</b>	
Shared Mobility	<p>Interviewee 2: "Meanwhile, we have started a new Green Deal around the theme of residential environments. In this new Green Deal [on residential environments], we are no longer going to impose the workgroups top-down from the organizers but we let it [the initiative] come bottom-up from the signatories themselves."</p> <p>Interviewer: "Okay, so how will such a workgroup be approached differently in this new Green Deal?"</p> <p>Interviewee 2: "The participants should all be in a workgroup, but the organizers will not impose the themes. We will let participants pitch what theme they think is important, what bottleneck they want to tackle, during a return moment and during the signing on the 22nd of April. What is also very important is that, in the Green Deal Shared Mobility, there was not necessarily a final product or a final goal of the workgroups. In the new Green Deal [on residential environments], there will be an end goal of the workgroups and a workgroup will also be limited in time. A workgroup may last a maximum of a year before it has to produce a result. These are all adjustments to make the workgroups more dynamic and concrete, which makes us think the workgroups will do better."</p>

	<p>Intermediate Report 2019: “It also remains important to actively involve all signatories. Smaller organizations have fewer resources to attend all workgroups and are therefore forced to skip meetings. It is essential to also communicate the findings of the workgroups to them and ask them for input. This could be improved according to a dozen respondents. In addition, sufficient support for the organization of the workgroups is essential.”</p> <p>Intermediate Report 2018: “Budget-wise and in terms of effort, the workgroups are a challenge; need for leaders with more time to organize the workgroup and follow up on content in between.”</p> <p>Intermediate Report 2018: “Main suggestions from the signatories: - Get signatories with the same actions to develop these together - Better communication about the current state of affairs of the signatories' actions - Need for coordinator(s)/leader(s) who can fully focus on the Green Deal, especially for the workgroups - Build expertise and formulate concrete recommendations (to organizations and overhead) based on the workgroups”</p> <p>Intermediate Report 2018: “Both the start-up, coordination, communication, and pulling of the workgroups and interim follow-up is time-consuming for the initiators (indication: in 2017, the 4 initiators spent a minimum of 966 hours which corresponds to a half-time job). Therefore, a funding proposal will be submitted from the coordination team.”</p> <p>Interview VPO 7: “Workgroups can have new life, but it should have a clear agenda with purpose. So that you know whether it is interesting or not.”</p>
Circular Procurement	<p>Interviewee 2: “In the workgroups, you get advice from your fellow buyers. Each time, there was an expert who could give his advice. That is much more valuable than just sharing knowledge.”</p> <p>End Report: “Provide a good structure for the Circular Procurement Team (CPT) [workgroup] sessions so that the participants get to work in concrete terms and evolve step by step. A CPT session should also be well prepared each time.”</p> <p>End Report: “The success of a CPT session depends on good coaching. The use of a professional moderator, who can challenge and support participants, is an asset here.”</p> <p>End Report: “Ideally, CPTs should be fixed groups that can build on the results of previous sessions. Try to avoid changing compositions as much as possible. Good preparation is needed for each CPT. Also try to draw overarching lessons from the different CPT sessions that are relevant to all buyers, irrespective of product group.”</p> <p>Process Report: “Facilitators were given a comprehensive script to guide the session. Webinars were organized to inform facilitators on how best to conduct the session and where they were given access to the script and all templates.”</p> <p>Process Report: “There was a risk that the group went its own way and that the prepared templates were not followed, especially if a strong facilitator (chairperson) was missing. In this case, CPTs were sometimes perceived as a ‘talking session’. The success of a CPT depends on good facilitation. Ideally, every CPT should have a professional facilitator who can follow the agreed structure and challenge participants. Designating a volunteer as facilitator depends on his or her specific competences and may lead to a different outcome; The composition of the CPTs is decisive. Participants learn most from the experiences of other buyers. If there are no buyers in a CPT with experience in circular procurement, it is best to invite external experts who can present a real-life case that can serve as inspiration and help participants along the way; It is important to take minutes of each session and share the insights gained with the participants of all CPTs. If possible and depending on the quality of the CPT, learning lessons can also be drawn from the CPTs that may be valuable to all purchasers.”</p>

	Whitepaper: "Providing a participants list, makes it easier for participants outside of the team to get in touch. If the constitution of the team is kept throughout the Green Deal, the members can learn and grow together and form a network. It is an option to ask all Green Deal participants for possible topics to discuss within these teams at the beginning / during the Green Deal."
Circular Construction	Interviewee 3: "A third option could be a 'real' Community of Practice, namely one that is a closed group. This would involve, for example, 20 people agreeing to move forward and exchange together..." Interviewer: "So, this more closed community of practice could also have a positive impact do you think?" Interviewee 3: "Yes, that third option comes down to an ecosystem. Times have also changed compared to three or four years ago. It is not that long ago but times are changing fast. I think, if you can hold together a 'coalition of the willing' and if these people find it valuable to be in this workgroup, if they give things but also get things from others, that would be an interesting approach. You do need experience and the right people for that, and you also need to put enough energy into it. I would like to try that out."
Sustainable Urban Logistics	Interviewee 1: "I think it would definitely be interesting to conduct sessions in smaller groups where questions can be asked to an expert."

*Translated from Dutch (except the Whitepaper)*

## APPENDIX K: RECOMMENDATIONS GENERAL

**Table K.1 Clarify whether top-down or bottom-up instrument**

Clarify whether top-down or bottom-up instrument	
Shared Mobility	Interviewee 2: "A question I ask myself as coordinator: 'To what extent does the Flemish government/administration itself want to play a leading role within Green Deals and where is the dividing line?'. In the first Green Deal, we just did our thing, there was also no guidance yet so that went very well. Now, I feel the instrument has a double role: on the one hand, a Green Deal is a bottom-up instrument but, on the other hand, the government wants to steer from the top. Both are possible but, [currently], it is just not clear for us." Interviewer: "And do you think it is a problem?" Interviewee 2: "No, not if it [the directionality of the instrument] is clear. I think it is good that there is involvement from the Flemish government and administration, for sure. But that should not come at the expense of too many rules. A Green Deal should also be innovative. You have to let the Green Deal live. If you say from the government what a Green Deal must necessarily look like, you take away its charm."
Companies and Biodiversity	Interviewee 1: "I know that lately, when there is a particular issue, people are quick to say, 'Make it a Green Deal'. I then think 'So, is a Green Deal the right instrument for that?'. A Green Deal started as a bottom-up instrument to give life or more attention to bottom-up ideas. However, it is now often used by the government to set up a participation process in a different way. I think the Green Deal instrument is molting a bit into something else. Whether that is good or bad, I will leave it in the middle. In my opinion, it is actually an added value that the Green Deal instrument gave institutions or companies the opportunity to come to the government with an initiative to start something up. I hope that continues, that companies continue to see it as a way to go to the government with an idea to work around something." Interviewer: "Where is it heading now?"

	<p>Interviewee 1: “There are now a number of Green Deals being drafted or started that are actually not an idea of civil society or any other organization but are an idea of the government itself. The idea may have been detected by the government somewhere else.”</p> <p>Interviewer: “Then maybe the risk is that there is less commitment from companies because it becomes more imposed?”</p> <p>Interviewee 1: “Yes, and it then becomes less of a bottom-up and if others start to see that it is also used for top-down initiatives, there is a risk that organizations no longer have the reflex to use a Green Deal for their initiative. Organizations may forget that they can organize a Green Deal with their bottom-up initiative because all the other Green Deals are organized top-down.”</p>
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*Translated from Dutch*

**Table K.2 Measure impact**

Measure impact	
Circular Procurement	<p>Interviewer: Do you think it is a good idea to set certain sustainability indicators in advance and aiming for them?”</p> <p>Interviewee 1: “Yes, as long as they are simple things. That is why the Green Deal Circular Procurement also had two projects. But, for example, with the Green Deal Urban Logistics, it is impossible to follow up how many emissions have you reduced and so on. And those two purchases [of the Green Deal Circular Procurement] are purely an output indicator. That doesn't say much. But if one says ‘You have to measure your impact.’, then I wish you good luck with the time you have to do that. Maybe with the [Green Deal about] brewers it was easy. If you can do that [measure impact] in an easy way, I would definitely do it. But, for example, ‘How many miles have been reduced?’ Then your guess is as good as mine. No one is really going to measure that. The same goes for [the Green Deal] protein shift about protein consumption, and so on. How much is that due to your impact? You don't know that. So, my advice is: please don't put time into that.”</p> <p>Interviewer: “Do you feel that there is a difference in the support from policymakers between a Green Deal that does have objective goals and a Green Deal that is vaguer?”</p> <p>Interviewee 1: “I don't know. You have to ask the politicians. ... In politics, of course, you can make a better, more credible impression with that [objective, measurable goals]. But I haven't sensed that yet. They [politicians] do ask about it. But I refuse to rack my brain over that.”</p> <p>Interviewer: “We also heard about setting very clear goals in advance. Objective indicators so to speak. What do you think about setting very clear goals in advance, objective indicators so to speak?”</p> <p>Interviewee 2: “The only concrete things we set were those two [procurement] projects. But saying how much material must be saved or how many carbon emissions must be reduced is very difficult. If we could solve that issue, we would have already done it. But it is not easy to express that in measurable figures. So, we limited ourselves to that [two procurement projects]. And then a qualitative analysis has to happen to see if we achieved what we wanted. It is hard to do that numerically.”</p> <p>Interviewer: “So you would rather not implement it?”</p> <p>Interviewee 2: “I don't think you can say by default that there are a lot of measurement indicators for every Green Deal. There should always be some, because otherwise you can't evaluate. But I wouldn't go too strict on that.”</p> <p>Process Report: “However, quantitative figures on the realized effects on the market are not currently available. An indication of this could be obtained by organizing a survey among the suppliers who participated in the Buyer Meets Supplier events in which the following questions could be asked: - Since the Buyer</p>

	<p>Meets Supplier events, is there more interest from customers in your circular offerings? - Has your turnover from circular products/services increased since the Buyer Meets Supplier events? - Are you receiving more specifications/RFPs with circular questions?"</p> <p>Whitepaper: "It is important to keep track of the participants' projects, their progress and impact. For the coordinators as well as for the participants themselves. Advice on progress tracking: - If you have a large number of participants, it might be efficient to use a dedicated software or tool for this. - Try to incorporate guidance on goals, strategies, and ambitions for the projects. - Keep the needs of your participants in mind when choosing or developing a system. - Decide with the participants which indicators will be measured. - The tool must be extremely user-friendly otherwise the response rate will be low. - A manual or training might be necessary to activate participants to start using it"</p>
Circular Construction	<p>Interviewee 1: "It is important, on the one hand, to measure the start [situation of the Green Deal] and, on the other hand, to set a direction. Therefore, you should try to set indicators, targets. To me, indicators are things you strive for. You say: 'I want to go there, and this is how it can express itself.' But apparently, participants fear that they will be penalized if they do not meet the targets. But I think, 'An indicator is an indicator, no more and no less'. To me, an indicator is a way to demonstrate what we want to achieve. You could think about it with the group. I have a very hard time with not setting indicators in order to not feel bounded. Then you don't take yourself seriously in the process. Indicators really remain a threat for some [participants] when it should help give direction. That remains difficult. With the Work Agenda, we had hoped to give more direction. We didn't succeed. Participants are afraid they won't be able to live up to the commitment and that they will get punished for that. This is not the case at all because you [organizers] have no tools to punish them except moral pressure. For me, indicators help to see things clearly and make it clear what we want to achieve. I would like to have more direction and goals. You can have many separate initiatives and projects, but it is nice if those projects are in a story that leads somewhere and are not very separate."</p>
Sustainable Urban Logistics	<p>Interviewee 1: "There are also some things that could have been better. If we had to do it [the Green Deal] again, I think we could also have worked a little more on impact, especially monitoring impact. That was actually not taken into account properly in the beginning. But we did try to get an idea of that impact afterwards through qualitative questioning. We found that many participants considered their action to be impactful. But there is no quantitative knowledge about that. It would have been interesting if we had been able to report on that. We did try to focus more on the impact of new participants along the way. I would do that differently next time."</p> <p>Interviewer: "So why didn't you focus so much on impact in the beginning? Did you not think about that yet?"</p> <p>Interviewee 1: "You have to report on that, and those parameters are reasonable for larger companies. It [reporting on impact] will require less extra effort [for larger companies] because I assume they have to do that anyway as part of the reporting around corporate social responsibility. But for the smaller companies, it is less obvious. I don't think we really thought about it, nor did we want to raise the bar [for participants]."</p> <p>Interviewer: "With the new participants you tried to focus on that. Was that well received?"</p> <p>Interviewee 1: "Those were open to it, yes."</p> <p>Interviewer: "Did you discuss indicators then?"</p> <p>Interviewee 1: "We actually mainly left the initiative with them to see what was possible for them to do in terms of monitoring. Because it was really much less obvious for those smaller companies. It was, for example, about 10% or 20% less vehicle travel, but it was not easy to convert that into CO2 [emissions]. Larger companies have a calculation model for that."</p> <p>Interviewer: "Suppose you could have done the Green Deal again; would you want to measure that impact from the very beginning?"</p> <p>Interviewee 1: "Yes."</p> <p>Interviewer: "So what would it take for that to happen so that also the smaller organizations, for which it is more difficult, join?"</p>

Interviewee 1: "I think that we should arrive at some kind of uniform, but simple scheme, where we request, for example, indicators of how many vehicles have been used now? How many miles are driven with them? Things that are not too complex. Those who can, can then convert that to CO2. But I realize that CO2 is also an abstract concept. For example, Bpost says we have now saved x amount of CO2 with our eco zones. That is very impressive when you see it, but, in itself, it remains very abstract. So, a very clear and concise diagram, a one-pager, with a number of indicators that can be filled in, would be useful. And then we would ask people to fill that in once a year. Then we can say, for example, x amount of reduction has happened and the shift from diesel to electric is of this size, and so on."

Interviewer: "Do you think companies would give that information easily? I can imagine that for some it would be sensitive. Especially also in that sector, where everybody is a bit of a competitor?"

Interviewee 1 "I think you raise a valid point. I think we need to make agreements with companies about that. Now, we also have made agreements with the participants who joined in the second phase, in each case, about their willingness to share the results of their actions within the network. That data, of course, is competitive or confidential. Currently, that should not be shared with the network, but we could agree that we communicate only globalized data."

Interviewer: "Would it help to determine objective indicators at the start of a Green Deal?"

Interviewee 2: "Yes, ... however, you are dependent on a non-committal participant who is not going to want to expose all their internal business processes. So, unless you can scientifically examine how many effective kilometers are cleared out, it remains dependent on what is reported."

Interviewer: "Do you have any other tips [to improve the Green Deal instrument]?"

Interviewee 3: "One should make an evaluation of the impact of the different engagements. It valorizes what you have done within the Green Deal. You could use these results to show politicians, and your clients, that the Green Deal is achieving sustainability results. That is certainly an argument now for different parties in the market."

Interviewer: "You mean to make an evaluation of the impact of the Green Deal, right?"

Interviewee 3: "Yes, but to evaluate the impact of the Green Deal, you also must have the evaluation and the impact of the different commitments."

Interviewer: "Within some Green Deals, very measurable goals are set in advance. Could it have been useful within this Green Deal to set concrete sustainability improvements goal at the start and strive for that?"

Interviewee 4: "No, I don't think that was actually doable. I don't think we knew how many companies we were going to have. I don't think we knew what exactly we were going to do. I also don't think we knew how we were going to calculate it [sustainability impact] correctly. Because the sustainability thing is very difficult to quantify. So, no, I don't think so. I think you have to be careful. I see that [a Green Deal] as the first thing to put a spotlight on a theme and create a movement. And it is non-committal. There is an effort commitment, but not a result commitment. So it is very difficult to, de facto, say we have to achieve this and this. You could set a target, but certainly not a KPI. I think that would be completely wrong in the [Green Deal] instrument."

*Translated from Dutch (except the Whitepaper)*

**Table K.3 Enhance commitment of participants**

Enhance commitment of participants	
Shared Mobility	<p>Interviewer: "Do you have any ideas to strengthen the commitment [of participants], if you would do the Green Deal again?"</p> <p>Interviewee 1: "... Maybe it is okay to say to participants 'It is okay that you come when you feel like it. Everyone is welcome and come when you can.' In the end, the group of participants did manage to report more than 500 actions. They may not have come to the meetings, but they contributed in their own way. Also, [my organization] is a non-profit, we are subsidized. But other companies are a lot more critical about how they spend their time, so it is okay that the time they spend is as action-oriented as possible."</p> <p>Interviewer: "So, you wouldn't really make a big adjustment to increase this engagement?"</p> <p>Interviewee 1: "I think we need to think carefully about expectations in particular."</p> <p>Interviewer: "So would you actually set the expectations higher or lower? Or make a distinction between different types of participants in terms of expectations and engagement?"</p> <p>Interviewee 1: I would make the distinction. I would ask: 'What do you want to do? And whatever you say is okay'. The participants do sign a deal, so they have to commit to do something but it is okay if they participate in all kinds of meetings and it is also okay if they just do their own actions and report on them. And then you have to see what support you give the participants depending on the commitment they make. Maybe, for certain things, it is enough to just sit together online twice a year for feedback, one-on-one or in group. We need to take into account that not all signatories have the same amount of time, don't have the same habits, etc. We have to adjust to that."</p> <p>Interviewer: "Yes, because now the same commitment was expected from every participant, namely, to do at least four actions on at least two themes. So, you would make this more flexible if you were to do the Green Deal again?"</p> <p>Interviewee 1: "Yes, indeed. I'm also not sure whether, for a future Green Deal, we would choose to have a lot of participants or keep this deliberately smaller. I don't know that yet. If we would go for many participants, I would want to make it clear that this can be done with different expectations. But it could also be that we deliberately keep it a bit smaller, also depending on who we work with. Perhaps you can achieve more with 10 parties, where each of them has, say, 10 partners. That way, you do reach 100 but you only expect a lot of commitment from those 10 parties."</p> <p>Interviewee 3: "If you cannot come up with four actions, I think you have no role in the Green Deal. So, I think setting a lower limit is good in terms of commitment. Otherwise, you get free riders who want to participate and then at some point say, 'We only have to come to the meetings, we have nothing to gain from it'. Those people would then indeed have nothing to gain because they have not formulated actions. So, I think that our approach in itself was good."</p> <p>Interviewer: "Did you like the lower limit of four actions?"</p> <p>Interviewee 3: "Yes, that is okay. Whether it is three, four or five. It doesn't matter much."</p> <p>End Report: "A balance between non-obligatory commitment and results-based work must be made. ... Nevertheless, a certain degree of concreteness can exist, namely by setting up goals and actions tailored to the signatories and in consultation with the signatories and adjusting them when necessary. Here, the goals and actions are made very concrete and executable for the signatories themselves, to the extent of their capabilities. In this way, signatories can ask for support in implementing their actions in a more targeted way, signatories can be better matched with each other, and more actions can be successfully completed."</p> <p>End Report: "For some participants, the Green Deal was therefore sometimes too non-committal. A more concrete definition of the actions could have made them easier to evaluate afterwards. More concrete and ambitious actions and targets are therefore preferable in the future, because even if only half of the targets are then met, this can already represent a success."</p>



	<p>End Report: “The steering group indicates that when the Green Deal was launched, it was difficult to define the objectives and their level of ambition. Shared mobility is in itself a broad topic, so concrete delineation into objectives was necessary. On the other hand, the nine different themes simultaneously made it difficult to create unity within the Green Deal. The steering group further indicated that determining actions that met the criteria was no easy task. The question arises whether defining all the actions in advance is really necessary and whether the actions undertaken should be so result-oriented. Demanding too much from the signatories could stifle the momentum. Bringing all initiatives together is, in itself, an added value. The question remains: ‘How can this collected potential be taken to the next level?’ For that additional step, this Green Deal may have paid too little attention. As an alternative, it could first check what each signatory is doing and give more time to formulate concrete actions. The important thing here is to look for connections, so that not all actions coexist, and come to a more concrete conclusion.”</p> <p>End Report: “As a result [of staff changes], some of these contacts were not quite aware of the (own) actions and objectives within the project. A solution to this [staff changes and the Green Deal staying less top of mind] is to appoint multiple contact persons within an organization to ensure a continuum. With a better information flow, organizations know better what is expected of them, where the opportunities lie, and what they can respond to. Staff changes within coordination team organizations also proved challenging for communication continuity and coordination.”</p> <p>End Report: “For signatories who already had more knowledge and expertise, this was often too ‘low-key’ ... A possible solution is to distinguish between a general part of the Green Deal that focuses on networking and a core group that works more in depth.”</p> <p>Intermediate Report 2017-2018: “Main suggestions from signatories: Get signatories with the same actions to develop them together.”</p>
Circular Procurement	<p>Interviewee 2: “You always have pioneers and then followers. It depends on the subject. It is not obvious for everyone to take big steps right away if I then translate it to local governments. That is how we work ourselves. There are always center cities that achieve much more and more quickly than smaller municipalities. So, in itself, I do think that it could make sense to work with different degrees of commitment.”</p>

*Translated from Dutch*

**Table K.4 Promote inter-Green Deal learning**

Promote inter-Green Deal learning	
Circular Procurement	<p>Interviewer: “Have you asked for advice from other Green Deals both here and abroad? And do you see any added value from that?”</p> <p>Interviewee 2: “No, we have not [sought advice from other Green Deals]. We have not looked at other Green Deals. That could have helped. But I think it was also an added value of the Green Deal Circular Procurement that we figured out ourselves where we wanted to go and what was needed. If you look too much at others, you might adopt processes that cannot really be applied to your specific situation.”</p> <p>Interviewer: “But, for example, to know what works?”</p> <p>Interviewee 2: “Yes that is possible. We also wrote two reports. One report about what knowledge was shared about circular purchasing. And the second report was really focused on the tool of the Green Deal. ‘How does something like that work?’ ‘How did we approach it?’ ‘What works and what doesn’t?’ So, we did evaluate that. I think, if you would start working on a Green Deal now, you should read that.”</p>
Companies and Biodiversity	<p>Interviewer: “Have you talked to the three prior Green Deals that were already in execution at the time for tips on how they are approaching it, even though it is not the same topic?”</p>

	<p>Interviewee 1: “The Green Deal Counter did play a role there, mainly in the start-up. Once the Green Deal started, this counter was less present.”</p> <p>Interviewee 1: “I also think that, now, the Green Deal Counter is already more committed to the communication between the Green Deals and is more aware that this is necessary. But that was not thought about at the time [of the Green Deal Companies and Biodiversity]. I didn't notice much of it at the time. I did write an intermediate report and briefed it to the Green Deal Counter. I had a few suggestions about it and the response was ‘Ah yes, good job, carry on’. Maybe it was good too, I don't know.”</p> <p>Interviewee: “Do you feel there is more and better communication now between the Green Deals than at the start and during the Green Deal Biodiversity?”</p> <p>Interviewee 1: “Better... I don't know, but definitely more. There has also been an awareness that communication is necessary and can be interesting. That system has also been rolled out better.”</p> <p>Interviewer: “Yes, you also have the learning network now. Do you think that is the right approach? Do you have any ideas on how it could be improved, the communication between the Green Deals?”</p> <p>Interviewee 1: “I think the current approach is a good one. It is always a bit of a search between asking for time from people and being able to offer something. I think that is okay now.”</p> <p>Interviewer: “Did you communicate with other Green Deals for advice prior to the Green Deal?”</p> <p>Interviewee 2: “We were one of the first Green Deals. There was not much communication between Green Deals at that time.”</p> <p>Interviewer: “Is there more communication between the Green Deals now?”</p> <p>Interviewee 2: “Yes. Now, there is a meeting a few times a year with the leaders of the Green Deals. We recently had a meeting with the leaders of all the Green Deals working on climate and biodiversity. There are quite a number of them by now. I do find this useful.”</p> <p>Interviewer: “Do you have any tips to make the Green Deal instrument even more effective and successful?”</p> <p>Interviewee 2: “When we started it, it was still a lot of chaos but, in the meantime, a lot has changed. There are already several people at Department Omgeving [Green Deal Counter] who are already managing the Green Deals and helping and supporting the start-up. So, I think they are doing really well. There should be more meetings with the leaders of the Green Deals that are working on similar topics. It would be useful to meet more regularly in a smaller group with people working on similar issues, for example, in workgroups. Of course, you shouldn't meet for the sake of meeting, but I find it useful to see how others do it. You can learn a lot from it.”</p> <p>Interviewer: “So it is already happening to some extent, but it may be even more?”</p> <p>Interviewee 2: “Yes. The organizers’ meetings are often quite general. It could sometimes zoom in a little deeper on certain topics. For example: ‘How to keep motivating participants to come to events?’, ‘How to organize a good study day?’ I think all organizers have similar problems with that. We could also zoom in on how to make the Green Deal topics more mainstream. Now, the awareness around the topic is somewhat limited to the participants, but it should also be able to flow through to the general public. Everyone is working on the topic of their Green Deal, but we are not process managers. It is a bit of trial and error.”</p> <p>Interviewee 2: “I find the Green Deal instrument in itself interesting to be able to achieve something in a certain sector. The hardest thing is to keep motivating and engaging the participants to take actions and keep offering interesting things to take them along the way. Some more support from the Green Deal Counter and more exchange with the other Green Deals would be interesting.”</p>
Sustainable Urban Logistics	Interviewee 1: “[The potential of the Green Deal learning network could be increased] By using other methodologies. For example, doing workshops, where organizers can introduce themselves to each other, can say what they did, what their stumbling blocks were and can discuss critical success factors.”

*Translated from Dutch*

**Table K.5 Execute research in advance**

Execute research in advance	
Circular Procurement	Interviewee 1: I think it [a preparatory workshop with potential participants] is relevant for every Green Deal to assess whether the concept is right and whether there is enough traction and interest. It was also a bit of polling for participants. ‘Does the topic live?’ Because there are Green Deals that get started with few participants.”
Companies and Biodiversity	<p>Interviewee 1: “I would also explore more what we need [in the Green Deal]. ... I think you [organizer] have to do research, put yourself in the shoes of the companies, and think why companies would want to take action. Then those motivations can be acted upon. But that requires research. You have to start doing interviews, ask questions, and analyze data. The relatively easy thing about the Green Deal Biodiversity is that it was a theme around which not much had been done. We wanted to do a Green Deal around it, bam, we had 50 companies that wanted to do that on their property or were already doing it. We put them in the spotlight. Actually, this was pretty straightforward. Now, if you want to go further into it ... Okay, the early adopters are advancing but, for example, now, still 80% of the companies currently don’t have space, money, time or interest in it [biodiversity on business parks]. However, there are still a lot of business sites in Flanders, which could be made more biodiverse. We don't really know how we can get these companies on board. You have to start investigating that.”</p> <p>Interviewer: “So, investigate this before [a new] Green Deal starts?”</p> <p>Interviewee 1: “Yes, or it can be a Green Deal in itself. You look for a research firm or university that wants to work on it and then gradually find companies that want to work on it and see the benefit of it and then want to be a bit of an ambassador. That can be a Green Deal in itself.</p> <p>Interviewer: To really find out what drives those companies, those potential participants. What are their struggles especially?”</p> <p>Interviewee 1: “Yes, and why aren't they taking action right now and why would they?”</p>

*Translated from Dutch*

**Table K.6 Diversify both organizers and participants**

Diversity both organizers and participants	
Circular Procurement	<p>Interviewee 2: “It is important to start a Green Deal with the right people [organizers]. You have the Flemish government, but I think a lot depends on the organizers. Whether you have the right pioneers at the table and whether they can commit to taking on the pioneers' role. Those [Green Deal organizers] should be representatives of your target group and they should be a good match for each other. There should be no competition [between the organizers] but rather, everyone should have their own target group and they should be able to also do something [around the topic of the Green Deal], in addition to the Green Deal, within their own operation. I think it is very important that you put the right people there [in the Green Deal organizing team] to be able to make it [the Green Deal] a success. The guidance by an external party was also important...”</p> <p>Interviewer: “What is the job [of this external party]?”</p> <p>Interviewee 2: “Making sure the right expertise is there. Thinking about who should speak there now? How are we going to do that? She also figured out everything, namely, to work with events, CPTs, market dialogues. Actually, she was the architect of the Green Deal. That was done by an external with us [the organizers] as a steering committee. That is really necessary.”</p> <p>Interviewer: “Are there things that could improve the Green Deal instrument towards the future?”</p>

	Interviewee 2: “Putting more effort in creating diversity of participants [could improve the Green Deal instrument]. There were a lot of companies, but not enough local boards. But, of course, you can't force them to participate. But we should, maybe for a next time, try to convince even more organizations.”
Sustainable Urban Logistics	<p>Interviewer: “Are there any reasons why you did not give a 100 out of 100? Are there any areas for improvement? Or things you would have done differently?”</p> <p>Interviewee 3: “Yes, we sometimes had the usual candidates within the Green Deal, and it would be nice to welcome more new members.”</p> <p>Interviewer: “You say you guys had the usual candidates. Why were you not able to involve other players in the Green Deal?”</p> <p>Interviewee 3: “We developed the network from scratch. We used our own network to start the Green Deal and, therefore, we had the usual candidates within the Green Deal. And we then communicated about this by some advertising at the start of the Green Deal on social media and a little bit in the newspaper. Because of that, we got other players. But it was too limited to do anything. ...”</p> <p>Interviewer: “Were the biggest key players then also present within the Green Deal?”</p> <p>Interviewee 3: “That is the big debate. If you want to welcome new members that are big players, this is good because that allows you [the Green Deal] to have more impact. If they [big players] change something in their process, you get a bigger impact. They also have a lot of staff and a lot of expertise. Therefore, it might be easier for them to make time to do the transition. If you compare that to an SME, they usually do not have time to do everything and have less time for the transition. So, they [SME] especially need support from a Green Deal, such a service can be especially useful for them. However, the impact of those [smaller] members is less than of the bigger players. So, it is a bit of a debate. That is why it is important to have a variety of players. Also, a big company needs SMEs and vice versa. It is good to have a network with different players and sectors.”</p>

*Translated from Dutch*

**Table K.7 Find balance between an online and offline approach**

Find balance between an online and offline approach	
Shared Mobility	<p>Interviewee 1: “You have to get people to meet physically to create personal connections. The personal connections created were something positive in the Green Deal. They were a result of the Green Deal. Online, you achieve that much less. So, you have to be able to get together. Of course, you do not have to meet in-person every time. You can also organize certain things online. You have to find the right balance between online and physical.”</p> <p>Interviewee 2: “If you really want interaction and exchange personal contacts, you have to see each other physically. That still works best. If you need to collaborate, you need to see each other in real life.”</p> <p>Interviewee 3: "I would definitely do the main operation physically. Having two or three people exchange briefly online, is fine. It is then easier online. But from the moment there are more than four people, I prefer effective physical consultation."</p> <p>End Report: “The switch to online operation as a result of COVID-19, therefore, made it easier for several signatories to remain involved in the Green Deal.”</p>
Circular Procurement	Whitepaper: “To create an impactful learning trajectory, it is important to physically bring the participants together. This allows them to learn collectively, create a network, and find opportunities for cooperation.”

Circular Construction	<p>Interviewee 1: "If I were to do the Green Deal again, I would still go for a mix of offline and online: real events and digital events. I, personally, find the hybrid events very difficult: with people in the room, on the one hand, and people following at home on their computers, on the other. I find that a nightmare. I find that counterproductive for both. ..."</p> <p>Interviewer: "Why do you find the combination of offline and online events so beneficial?"</p> <p>Interviewee 1: "Especially because of the displacement. Some people cannot take a whole day or half a day off but can take an hour off, if they do not have to travel. That makes a world of difference. Otherwise, it is often not worth it. It often happens that a particular participant is interested and can have a valuable input but cannot commute. Then, the digital aspect makes a lot possible. But with the Work Agenda, we also notice that people like to chat and vent after an event."</p> <p>Interviewee 1: "At an online event, you can hide yourself just a bit easier. If a participant just wants to follow along without input, this is easier online than in a room where everyone might have to take turns to say something. Some participants are very outspoken, while others feel their own initiative is not important enough. At offline events, you sometimes get to hear people you wouldn't have heard at an online event. Those individuals would have simply turned off their camera and microphone and would just follow along."</p>
Sustainable Urban Logistics	<p>Interviewee 1: "But for those networking events, we were still very happy that it could take place physically again, because that was also explicitly requested by the participants."</p> <p>Interviewee 4: "No I don't find anything positive about that [switching to online because of COVID]. Not by a long shot."</p> <p>Interviewer: "So, should it [the Green Deal] be done again, preferably everything would be physical and nothing online?"</p> <p>Interviewee 4: "Largely anyway. Actually, you do a fairly limited number of thematic and networking events anyway. You can't do that online. We even did that with breakout groups and so on. So, you can do some things with that. But you never get the dynamics that you would get physically. Should I do this interview with you guys at a table, it would be a completely different interview. Maybe I would say the same thing, but it is very different in terms of the experience. And people start talking and doing things afterwards. Which can't happen now, because you are sitting there with 30 people. ... I am not saying that Teams are something bad. It is easy that we can do it that way. But for networking and themed events no. That is totally wrong. I think we have done that well. We have handled it as well as we can. I think we have done that well. But it doesn't help anything for this kind of thing in my opinion."</p> <p>Interviewee 4: "We have also seen that [efficiency advantage of online meetings]. If something takes an hour, I think online is very good. But our themed events were often three to four hours, so an afternoon. ... And you cannot replace that [with an online gathering]. I have nothing against Teams. If I had to visit a company in Limburg, I think I would spend half a day [on that visit]. And now I will call for an hour. I'm fine with that. But specifically for what we wanted to do in the Green Deal: networking, events, speaking, interaction, I do not think that [meeting online] is good. We did not do that every week. We did a few [physical events] a year. Because that [physical events] takes a lot of preparation anyway. And so that was often 3-4 hours and then people do come."</p>

*Translated from Dutch (except the Whitepaper)*