

TRANSFORMATIVE CHANGE IN THE EUROPEAN GREEN DEAL

Mind the Gap: Inconsistencies Between Transformative Change Discourse and Strategies in the European Green Deal

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Mind the Gap: Inconsistencies Between Transformative Change Discourse and Strategies in
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Abstract

The current climate crisis calls for humans to change their current ways. One of the approaches is transformative change, a concept that calls for radically changing our current system, a concept that has been gaining popularity among scholars and policymakers. However, with this popularity also comes ambiguity around the concept. This research looked at how the concept of transformative change is represented in the European Green Deal, both in discourse and strategies, and how any mismatches between those two might be justified and legitimised by the European Union. The data were analysed through a literature review to establish different conceptualisations of transformative change, followed by a critical discourse analysis of the European Green Deal and interviews with European Union employees to find out the discourses and strategies around transformative change and what justifications were brought up. It was found that the European Green Deal has a more socio-technical innovation perspective, meaning it sees (technical) innovation as the primary driver of transformative change. There is also a social justice component within the European Green Deal. Although the discourse of transformative change often matched the proposed strategies' potential, there were a few mismatches. The discourse seems more ambitious compared to the proposed strategies. When it comes to justifications, six different ones were found. The overarching justification seems to frame the European Union as being side-lined, going against the other frame of the European Union as an ambitious climate leader. Overall, there is potential for transformative change, but some strategies need to be more ambitious and correct implementation is crucial. Although the justifications make sense to some extent, they show that the European Union changes its position based on what fits its needs better. These findings can help further build the concept of transformative change. Moreover, the gaps and justifications can help hold the European Union accountable and reduce its democratic deficit. Policymakers can also use these findings to see what still needs to be done to match actions to words.

Overview of Tables and Figures

Tables

Table #	Description	Page(s)
Table 1	Different discourses of transformative change, their sources and characteristics based on a literature review	26-28
Table 2	Inclusion and exclusion criteria for the thematic literature review on transformative change and its drivers	32
Table 3	Different discourses of transformative change, their characteristics based on a literature review. The characteristics that are also present in the EGD are in bold . Bold and with an asterisk (*) means that it is present in the discourse but not in the strategies around transformative change in the EGD	59-61

Figures

Figure #	Description	Page
Figure 1	Declining (in grey) and transforming sectors (in orange) identified in the Annexes D of the European Semester country reports of February 2020	42
Figure 2	Visualisation of the European Green Deal	49
Figure 3	Virtuous cycle of social involvement and effective policy implementation in the European Green Deal	84

Table of content

1. Introduction.....	1
2. Theoretical Framework.....	7
2.1 Climate Change.....	7
2.2 Transformative Change.....	9
2.3 Discourse Theory	11
2.4 Discourse Analysis.....	12
2.5 The Many Conceptualisations and Drivers of Transformative Change.....	15
3. Methodology	29
3.1 Data Collection	29
3.2 Data analysis	31
4. Results	38
4.1 The Representation and Performance of Transformative Change.....	38
4.2 Translating Discourse into Strategies	49
4.3 Justifying and Legitimising Strategies.....	61
5. Discussion.....	69
5.1 Answering the Research Questions	69
5.2 Reflection.....	78
5.3 Recommendations.....	82
6. Conclusion	87
Literature.....	88
Appendix I	106
Appendix II.....	107
Appendix III	108

1. Introduction

Just a few decades ago, the climate crisis was a discussion about the future, the things that would or could happen (see e.g. Meadows, 1972; Manabe & Wetherald, 1980; Mitchell, 1989). Nowadays, the climate crisis is something of the present, with even more to come in the future. With record-breaking heat, droughts, floodings and other natural disasters, our global consumption pattern is showing its effects (IPCC, 2022a; European Commission, n.d.; Milman et al., 2021). To keep the impact of global warming to a minimum, many call for changing our current way of living, changing the dominant paradigm that got us here. Piasentin and Roberts (2018) argue that there is a socio-economic and ecological crisis and the root cause of the problem is the “dominant paradigm of the industrial western society” (p.695). Others similarly challenge the Western-driven systems (Folbre et al., 2018), more specifically capitalism (Foran, 2019) and the current neoliberal system (Lawrence et al., 2013; Chakrabarty, 2017). The argument against these systems is not just about their direct impact on the climate and the environment but also their social impact. For example, Leach et al. (2018) see equity and sustainability as interconnected; without equity there is no sustainability and vice versa. Hence, to improve one, you have also to improve the other. Advocating for system change is, therefore, about wanting to change the misalignment between social, economic, and political systems on all scales, i.e. local, regional, national, or global (Leach et al., 2018; Piasentin & Roberts, 2018; Folbre et al., 2018; Foran, 2019; Snower, 2019).

One of the ways to achieve this system change is transformative change. There have been calls for the need for transformative change to address climate change at its root causes and change the current systems (IPBES, n.d.; Díaz et al., 2019; Turnhout et al., 2021). Foran (2019) identifies global capitalism and its influence on the economic system and daily life as the current system that needs to be transformed. The constant need for growth and profit over people and planet is what got us here and what needs to change (Foran, 2019). When talking about the current system or the status-quo in this research, capitalism and constant economic growth is at the core of it. Transformative change is about radically changing systems whilst emphasising the interconnectedness of those systems (Patterson et al., 2017; Vogel & O’Brien, 2021). Because transformative change calls for systemic change, it is essential to engage institutions with power over the current systems. Together with stakeholders on all levels, they can develop strategies that promote transformative change. One of those institutions is the European Union (EU). A significant amount of current and past greenhouse gas (GHG) emissions come and have come from countries in the EU (Ritchie & Roser, 2020). At the same time, the EU is wealthy, monetarily, in terms of knowledge, and other resources. Combining this with the EU’s role as an environmentally conscious governance body on the world stage, the EU has consequently positioned itself as a central leader in the movement to reduce GHG emissions drastically.

Furthermore, with its significant influence, the EU can construct how we see the issues at hand, regulating the frame it wants us to see, including and excluding solutions and statements in their policies to frame the issue in a way that suits it best. This way, the EU shapes

the discourse, the specific meaning we give to something and how we discuss it (further explained in [subchapter 2.3](#)) on a global level through its policies (Eckert & Kovalevska, 2021). The European Commission, the executive branch of the EU and the one that enforces the laws, is aware of this and wants to lead by example. This awareness can be observed after the Paris Agreement was adopted, and the European Commission proclaimed: “EU’s negotiation strategy was decisive in reaching the Agreement” (European Commission, 2016). Additionally, in December 2019, the European Commission put out a new growth strategy, called the European Green Deal (EGD), in a communication to the European Parliament and European Council, which was a crucial step to taking the lead (European Commission, 2019b). According to the European Commission (2019a), the EGD is the answer to climate change and environmental degradation as they “are an existential threat to Europe and the world.” The EGD is the logical next step following the EU’s assumed role of environmental and climate policy experts that they have been filling since the 1980s (Eckert & Kovalevska, 2021). According to Eckert and Kovalevska (2021, p.4), “The number of policies and legislation regarding the protection of the environment that go hand-in-hand with rising living standards in the EU ideology has grown exponentially.” The communication to the European Parliament and European Council itself has many other documents following it. However, this research will focus solely on the communication of 2019 called the European Green Deal, hereafter referred to as European Green Deal or EGD.

To provide context to the EGD, a quick overview will be provided of the documents important to the EGD, as well as some key components of the document. However, only the communication to the European Council and European Parliament of December 2019 (European Commission, 2019b) will be used for this research. Following the European Green Deal was the Climate Law, the legislative part of the EGD. The Climate Law is a legally binding document that puts into law the objective of at least a 55% reduction of emissions by 2030 and climate neutrality by 2050, compared to the 1990 level (European Parliament and European Council, 2021). The Climate Law was followed by the package “Fit for 55”, which contains all the measures that the EU institution should take to reach the goals set in the EGD. A significant component of the EGD is the Just Transition Mechanism, which aims to support the most affected by the climate crises “to alleviate the socio-economic impact of the transition” (European Commission, 2020b). The providence of support is done in part by looking at the needs and opportunities of each region to make sure the most suitable approaches are taken. Another vital part of the EGD is the Climate Pact, an initiative of the European Commission to get citizens involved with climate action in three ways; information sharing, creating spaces for people to express their ideas and work on them together, and supporting grassroots initiatives (European Commission, 2019b). Furthermore, the EGD acknowledges the need to look after our environment and change how we do things currently: “About half of total greenhouse gas emissions and more than 90% of biodiversity loss and water stress come from resource extraction and processing of materials, fuels and food” (European Commission, 2019b, p.7). Through the EGD, the EU accepts its responsibility to take action to reduce the effects of climate change.

When it comes to the presence of transformative change in the EGD, it contains a subparagraph called “designing a set of deeply transformative policies” (European Commission, 2019b, p.3). Thus the European Commission seems to be aware of the need for transformative change, also adding:

“It is essential to increase the value given to protecting and restoring natural ecosystems, to the sustainable use of resources and to improving human health. This is where transformational change is most needed and potentially most beneficial for the EU economy, society and natural environment” (European Commission, 2019b, p.3)

This quote directly references transformative (in this case, transformational) change and its importance in the key aspects of the EGD, namely sustainable resource use. Furthermore, it is acknowledged that transformative change impacts multiple systems (economy, society, environment).

Despite promoting state-of-the-art approaches, innovative policy initiatives, and other new approaches (such as transformative change) to tackle climate change, there has been criticism from academics and interest groups saying the EGD lacks what is needed to achieve the goals (e.g. Greenpeace European Unit, 2019; Sabato & Fronteddu, 2020; Eckert & Kovalevska, 2021). There seem to be two categories of criticism: the critiques focused on specific policies missing from the EGD and the critiques on how the promoted policies can reinforce the current systems underlying the EGD (e.g. neoliberalism), which is argued to be the system that is causing the problems in the first place (Lawrence et al., 2013; Chakrabarty, 2017; Foran, 2019). Since this research focuses on system change, the second category will be discussed in more detail. However, the first category will also be discussed to provide a complete picture of the criticism.

When it comes to the first category, especially the lack of social policies is criticised. Sabato and Fronteddu (2020) see the lack of social inclusion policy and too much dependence on the goodwill of companies as the main problems. According to Sabato and Fronteddu (2020, p.32), “by classifying and coding economic activities according to their supposedly positive impact” the EGD lets the market decide the price of environmental protection. Pianta and Lucchese (2020) also criticise the lack of social inclusion and argue that more social inclusion can help gain support for the EGD. Suppose the EU is able to show the benefits of sustainable development, such as more job opportunities and better environmental and social conditions. In that case, it can help gain support for the strategies in the EGD (Pianta & Lucchese, 2020). Furthermore, Pianta & Lucchese (2020) argue that the most vulnerable communities should be protected from the effects of the strategies (e.g. energy prices).

Instead of specific strategies, critiques from the second category are directed at how the EGD may perpetuate the current systems that cause environmental degradation and climate change. For example, the European Unit of Greenpeace argues that the EGD continues the economic system that “has rewarded pollution, environmental destruction and human exploitation” (Greenpeace European Unit, 2019). The European Environment Agency (EEA), the independent, decentralised agency of the EU researching the environment, calls into question the idea that growth and resource use can be separated and instead advocates for an EGD that focuses on “changes in consumption and social practices” (European Environmental Agency, 2021). Furthermore, Samper et al. (2021) argue that the EGD furthers neoliberal hegemony, where the belief exists that the market solves all problems. Neoliberalism is an economic theory defined by Harvey (2005, p.2) as: “in the first instance a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets and free trade.”. Furthermore, the government should only play a

role in enforcing the law and making sure the market functions properly (Harvey, 2005). If there are commodities for which a market does not exist, it must be created as all commodities should be marketised (Harvey, 2005). Consequently, this makes it look as if the solutions offered in the EGD are the only solutions, continuing the competitive behaviour and focusing on maximising profit, practices that got us here in the first place (Linnenluecke et al. 2017). Eckert and Kovalevska (2021) back this, claiming that the discourse in the EGD has delegitimised “crucial environmental issues” and legitimised “harmful environmental practices”. There are multiple theories on how the EU achieves this; according to van Dijk (2008), powerful actors (such as the EU) influence public opinion and discourse through “supplying institutional information to press releases, press conferences, interviews, leaks, or other forms of preferred access to news-makers” (p.36). For this reason, powerful actors can influence how citizens view certain issues. Specifically for the European Commission, Eckert and Kovalevska (2021) claim that the European Commission constructs the way citizens see the European Commission and its climate policy by “reproducing the perspective of an uncontested support of the EU policies” (p.14). Their research suggests that the European Commission is actively shaping how we perceive it and its policies to fit the needs of the European Commission best, thus shaping part of the EU discourse, and the EGD is part of this. Eckert and Kovalevska (2021) also speak on the EGD, claiming that the EGD discourse continues the current power structure. For this, Eckert and Kovalevska (2021) give a few reasons; for example, the willingness of citizens to act is underestimated, there seems to be no real intention of the European Commission to communicate with citizens, and the linguistics in the EGD keep up the idea of the EU as the controlling institution. All of this undermines communication with citizens and underestimates the willingness of citizens to change and the power the involvement of citizens can have (Eckert & Kovalevska, 2021). Similarly, Ossewaarde and Ossewaarde-Lowtoo (2020) argue that public and private actors, including the EU, are powerful enough to delegitimise any counter-discourses to the EGD discourse. Ossewaarde and Ossewaarde-Lowtoo (2020) claim that the European Commission and institutions such as the World Economic Forum can form a diverse coalition that “is hegemonic enough to win consent” (p.4) and thus keep the current system in place. During the initial stages of the EGD, ExxonMobil, a United States oil firm, had meetings with European Commission officials to try and limit the pressure to get rid of fossil-fuel-powered vehicles and slow down the increase in electric vehicles on the market by reducing the strict tailpipe regulations (InfluenceMap, 2020). The meeting did not drastically change the EGD. However, an impact assessment on adding transport to the emission trading system of the EU was put into place, a proposition of ExxonMobil (InfluenceMap, 2020). It shows the lobbying going around and the power big corporations have to influence policy. InfluenceMap (2022) also highlighted many gas companies lobbying to weaken the gas reforms proposed in the EGD. Ossewaarde and Ossewaarde-Lowtoo (2020) criticise not only the discourse of the EGD but also the proposed strategies for being traditional and primarily focused on preserving political-economic establishments. On the other hand, Ossewaarde and Ossewaarde-Lowtoo (2020) acknowledge that the proposed strategies of the EGD could invoke more transparency, change power structures, and lead to more democracy. Besides the EGD, the Just Transition Mechanism also received criticism. The main argument is that the strategies proposed in the JTM will not create a just transition and do not have the right vision, resources, and tools (Pianta and Lucchese, 2020). Pianta and Lucchese (2020) mainly focus on industrial policy and

criticise the lack of funds, the fact that there are no incentives for companies to change, the lack of integration of policy areas, and the weak role of governments. Before, the EU had also been criticised for its rhetoric not matching its strategies (Braun, 2013). This mismatch mainly comes from the contradiction in the idea that economic growth and environmental protection can be combined, ignoring the adverse effects economic growth has on the environment (Biely et al., 2016).

The EU has previously introduced approaches to deal with the effects of climate change and environmental degradation. However, some were eventually framed in a way that moved away from the original goals, for example, with eco-innovations. Eco-innovations was introduced as a concept within the EU around the start of the 21st century, but the main introduction was in the 2011 Eco-innovation Action Plan (EcoAP). Initially, eco-innovation was any innovation with economic and environmental benefits (Fussler & James, 1996, as cited in Colombo et al., 2019). Within the EcoAP, eco-innovation is seen as the primary strategy to achieve sustainable development, consequently, eco-innovation is any innovation that would bring society closer to sustainable development (Colombo et al., 2019). According to Colombo et al. (2019), eco-innovation turned out to be a form of weak sustainability. Weak sustainability is the idea that natural and human capital are interchangeable and that technologies can fix any issue with natural resources. Eco-innovation eventually came down to a “business opportunity for the private sector and a driver for economic growth” (Colombo et al., 2019, p.659) whilst excluding third parties such as NGOs and grassroots organisations. A concept that started off with the goal of sustainable development ended up eventually in the same system it tried to get out of. Consequently, the same could happen with the EGD if we are not careful enough; it contains a similar topic in the same institution.

As mentioned previously in this chapter, the EGD references transformations and transformative change. For example, it talks about transformative policies and transforming the EU, so there is potential in the language of the EGD. However, the strategies need to match this representation of transformative change in the EGD to realise the transformation the EU intends to achieve when it talks about “transform[ing] the EU into a modern, resource-efficient and competitive economy” (European Commission, 2019b, p.2). Therefore it is essential to first understand how the EGD uses the discourse of transformative change, this will provide the language component of the transformative potential of the EGD. Furthermore, it is essential to know if and how these claims of transformative change translate into actual strategies; these strategies are what will, or will not, put transformative language and potential into action. The strategies are the actions that will have to put the words of transformative change into motion. By only looking at the discourse, there will not be a complete picture of the transformative capacity of the EGD, that is where the importance of the strategies comes in. Words on climate action are often not met with the appropriate climate action strategies (Linnenluecke et al., 2017). Therefore only focusing on words could give an incomplete picture. Additionally, it is crucial to know whether and how the current system is maintained through the discourse and strategies of the EGD to give more insights into how the EU functions and to make it easier to hold the EU responsible.

As discussed above, there has been plenty of criticism towards the EGD for not being social, radical, and transformative enough. By investigating how the EU constructs transformative change discourse in the EGD and comparing it to how the EGD proposes integrating the

concepts of transformative change into policy, the criticism is examined, and gaps in the EGD are highlighted. This thesis, therefore, explored whether the potential for transformative change in the EGD is matched by the strategies. The way the EU constructs the transformative change discourse can show what values and power dynamics underlie the EGD. A mismatch in what the text promises and the proposed strategies intend to deliver can be revealed by highlighting the gaps between the discourse and strategies. Subsequently, it is shown whether the EGD is living up to its potential to be transformative. Lastly, investigating how the discourse around transformative change in the EGD is justified and legitimised can reveal what is happening in EU climate policy by showing the values underlying the choices and the frame the EU employs. If there are any gaps between the discourse and strategies, what are the reasons and how does the EU justify those gaps and the decisions made in the EGD. This can expose if the legitimacy of the EU as a critical player is affected by these gaps, how it is dealing with them, and if they hinder the legitimacy of the EU. Furthermore, we can use the gaps to expose any missing parts in the strategies that should be revised to ensure that ‘transformative change’ discourse lives up to its promises and engages meaningfully with power relations and system-wide change.

These insights can contribute to a better understanding of how the concept of ‘transformative change’ is used in policy documents. As a relatively new concept, institutions are still figuring out what to do with it, leading to many different interpretations of the concept, which can lead to incorrect implementations of much needed (climate) policy (Pelling, 2014). A more precise conceptualisation of transformative change in policies can help with the correct interpretation and implementation of the policy. Moreover, calling attention to these interpretations can contribute to theory around the concept of transformative change, something scholars of the subject are calling for (see e.g. Raudsepp-Hearne et al., 2020; Fazey et al., 2018). To quote Fazey et al. (2018, p.213):

“critically engaging with the idea [of transformative change] is important to help expand thinking and open up dialogue about new possibilities and what it means to reshape the way in which people live.”

Furthermore, any mismatches uncovered in this study can guide other studies investigating the use of transformative change in (climate) policies. The functioning of the EU is similar to other western governments, therefore, gaps and processes that are present in the EGD could also be extrapolated to other climate policies. Understanding transformative change discourses is just as important in the EGD as in other climate policies. The better an ambiguous concept is researched and analysed, the more apparent it will become and the more effective its use in policy (Pelling, 2014; Blythe et al., 2018).

In addition, knowing the extent to which the strategies in the EGD live up to the discourse can help keep the EU accountable for its actions. There has been plenty of debate about the apparent ‘democratic deficit’ of the EU, especially when it comes to the input side of democracy. To some, the democratic deficit of the EU means a lack of democracy because the *demos* (population) do not have enough *kratos* (power, authority) (Murdoch et al., 2018). One of the arguments for a deficit is the lack of transparency and accountability (Crombez, 2003; Murdoch et al., 2018). More knowledge of the EU’s functioning can create a more democratic relationship by establishing more transparency and accountability between EU institutions, EU citizens, and others affected by EU policy. The actions of the EU have the power to shape global discourse that does not solely affect EU citizens but also citizens of countries that engage

with the EU. Therefore, it is crucial to look at the concept of transformative change and what the EU's discourse is around it in the EGD.

In order to investigate this, I will be answering the question:

How do the discourses and proposed strategies of transformative change in the European Green Deal differ, and how are any inconsistencies constructed and legitimised?

This question is addressed through the next sub-questions:

- (RQ1) How is the concept of transformative change represented and performed in the European Green Deal?*
- (RQ2) How does the representation of transformative change in the European Green Deal translate into the proposed strategies in the European Green Deal?*
- (RQ3) If there are mismatches between the discourses and proposed strategies, how does the European Green Deal justify and construct the legitimacy of its strategy for transformative change?*

2. Theoretical Framework

The following chapter contains the theoretical framework and analytical framework of this research. First, a quick background on climate change will be given, what is climate change, how the science has evolved, the political background, and some of the debates. Second, there will be an introduction to what transformative change can be. The third subchapter is on what discourse means, with a focus on Foucauldian discourse. The following subchapter will expand on discourse and how to analyse discourse using discourse analyses, more specifically, critical discourse analysis. Lastly, a broad overview of different discourses around transformative change will be provided. The seven discourses that are presented make up the analytical framework used to analyse the data of this research.

2.1 Climate Change

The main issue at the centre of this research is climate change. The following subchapter will provide background on climate change and how the scientific and discursive debates have changed over time. Climate is defined by the World Meteorological Organisation (WMO) as the average weather over a long period of time for a specific location (WMO, 2021). In its essence, climate change is the change in long term weather and temperature trends (United Nations, n.d.). Climate change has happened over the billions of years the Earth has existed (Hannah, 2014). The issue with the current climate change is its speed. Typically climate change happens gradually, but the current climate change is sped up (Hannah, 2014). This speed is because, this time, climate change is human-induced (IPCC, 2021). Through the emission of greenhouse gasses (GHG), the sun's warmth is better captured and maintained causing global warming, which is a component of climate change (Hannah, 2014). This global warming is 1.09 degrees Celsius compared to the 1850-1900 baseline (IPCC, 2021). The effects of climate change are, e.g. increased heat, more severe rainfall, more droughts, warming of the ocean, and ocean acidification (NASA, n.d.). These events have and will have major effects on ecosystems and everyone who relies on those ecosystems (Malhi et al., 2020).

Over time the scientific debate around climate change has developed from discovering the greenhouse effect to acknowledging the broad effects of human-induced climate change. John Tyndall is accredited with discovering the greenhouse effect in 1859, although there is evidence of Eunice Foote, a female scientist, to have discovered it first in 1856 (Darby, 2016). After that, it took almost a decade for another breakthrough scientific discovery in climate science; the measurement of CO₂ in the atmosphere by Charles Keeling in 1958 (Keeling, 1961). Being able to measure and document CO₂ levels allowed scientists to track trends in CO₂ levels. In order to know the historic CO₂ level, bubbles in ice cores were used (LeTreut et al., 2007). The analysis of the air in these bubbles showed that from ten thousand years ago until the industrial era, the CO₂ levels were stable, with a steady increase setting in at the beginning of the industrial era (LeTreut et al., 2007). The anthropogenic influence on global warming had been speculated about for years when Wigley and Raper (1990) proved the increase in global surface temperature could not be attributed to natural variability. Following

this finding, research was broadened to other climate events like precipitation and ocean temperature, which also led to evidence that the change in those events was not natural (LeTreut et al., 2007). The Intergovernmental Panel on Climate Change releases an assessment report every five to six years. With those reports come a so-called physical science basis, where the most current climate science is discussed. Over the years you can see a change in subjects. The scientific basis of the second assessment report was released in 1996 (Houghton et al., 1996). It mainly focused on climate models and documenting the effects of climate change on land and oceans (Houghton et al., 1996). The first chapters mainly were about observations made in oceans, the atmosphere, and carbon cycles (Houghton et al., 1996). In the newest assessment report (AR6), there is still a significant focus on natural sciences but more interconnected, focusing on cycles and feedback loops that influence many different systems (IPCC, 2021). There is also a more significant focus on risk management of the effects of climate change, the anthropogenic nature of climate change, and the social impacts (IPCC, 2021).

The growing concern about climate change and the role of humans led to the establishment of the United Nations Framework Convention on Climate Change (UNFCCC). The agreement was ratified by 195 countries at the Earth Summit in Rio de Janeiro, Brasil (Hannah, 2014). After the Earth Summit, each year from 1995 on, a Conference of the Parties (COP) was organised to ensure that the agreements made in the UNFCCC were implemented (IPCC, n.d.). Since the UNFCCC was just an agreement about taking action, it was later supplemented with the Kyoto Protocol in 1997, which has binding targets for GHG emission reduction (Hannah, 2014). Since the start of the COP, there have been 26 in total, of which three are the most well known. First the COP in Kyoto in 1997, which is discussed above. Probably the most infamous COP is the one in Copenhagen in 2009 (COP15). The fourth assessment report (AR4) of the IPCC came out in 2007, and in November of 2009 e-mails were released showing that the scientists working on the report had changed or withheld knowledge to make the impact of humans on climate change less uncertain (Beck, 2019). COP15 was seen as a failure since it did not lead to any binding agreements on reducing GHG emissions (Vaughan & Adam, 2009). The COP21 held in Paris in 2015 is probably the most well known as it led to the Paris Agreement. The Paris Agreement is a “legally binding international treaty on climate change” ratified by 196 countries (UNFCCC, n.d.). The Agreement's primary goal is to stay below 2 degrees Celsius warming compared to pre-industrial levels, with the ambition to keep to 1.5 degrees Celsius warming (UNFCCC, n.d.)

The change in the scientific debate also came with a change in the political debate; What causes climate change? Who is responsible? What are the solutions? Is climate change real? The main discussion at the core of climate change is whether or not climate change is real. As science has evolved, part of this debate has shifted toward whether climate change is human-induced (Bain et al., 2012). The two camps in this are often referred to as ‘climate deniers’ and ‘climate believers’. However, some argue to move beyond this type of polarising name-calling (Corry & Jørgensen, 2015).

When it comes to the debate on who is responsible for more sustainable consumption patterns, you have individuals on the one side and corporations on the other side. The side that sees corporations as responsible argues that corporations have the most power due to globalisation and neoliberalism (e.g. Carter & Woodworth, 2018; Gunderson & Fyock, 2021). Simultaneously, only 100 companies cause 71% of the global emissions (Riley, 2017). These calls

to hold companies accountable are often supported by calls for corporate social responsibility (CSR) (e.g. Allen & Craig, 2016). CSR is a way for companies to address their social and environmental impacts and, according to Carroll (1999, p.286), is about companies being “economically profitable, law abiding, ethical and socially supportive”. On the other side of the debate, there is the argument that individuals are responsible. The main idea behind this is that companies are just following the demand of individual consumers. By making more sustainable decisions, individuals can change the market and the world toward a more sustainable path (Wells et al., 2011; Lubowiecki-Vikuk et al., 2021). The argument is not that one individual is responsible but rather a collective of individuals (Lahikainen, 2018). Within this debate, a group also thinks individuals are only responsible for holding their government accountable for their climate action (e.g. Johnson, 2003; Sinnott-Armstrong, 2005; van de Poel et al., 2011).

There exist many debates about the solution, one of the debates is about green growth versus degrowth. Whether economic growth should continue but in a more sustainable way (green growth) or whether we should scale down production and consumption and reduce economic growth (degrowth) (Sandberg et al., 2019).

The ambition of the COP is there. However, often the strategies that are agreed upon do not match what the IPCC and others see as necessary to solve the climate crisis. Even when the ambitions are high, for example, in the Paris agreement, the implementation by governments is lagging and not on track to reach the goals of the agreement (Roelfsema et al., 2020). There seems to be a lack of climate action (Dietz et al., 2018). As explained in the [introduction](#), this lack of climate action is also present in the European Union. The European Green Deal (EGD) is a climate policy influenced by the science and debates discussed in this section. The choices made in the EGD should be looked at with this background in mind, as well as the context provided in the [introduction](#).

2.2 Transformative Change

One of the ways to fight the inaction discussed in this chapter and the previous is transformative change. To understand transformative change, it is helpful to take a step back and look at the terminologies (e.g. transitions and transformations) and theories underlying the growing discourse of ‘transformative change’. For example, the concept of transformations is increasingly being used by both scholars (see e.g. Pelling, 2014; Blythe et al., 2018) and institutions like the Intergovernmental Panel on Climate Change (IPCC), United Nations (UN), and Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) (Clarke et al., 2014; UN, 2015; IPBES, n.d.). According to Feola (2015), “the term ‘transformation’ is gradually becoming institutionalised in the vocabulary of the scientific and policy communities” (p.376). On the one hand, added attention to a concept many see as part of the solution to the climate crisis can be seen as a positive. The attention can help transformative change be discussed, thought about more, and even implemented and used more. Getting and keeping the concept into the public domain is essential to make it part of the public date, and more people will consider it as a solution. On the other hand, the constant and diverse conceptualisations can lead to the meaninglessness of the term (Pelling, 2014; Ziervogel et al., 2016; Blythe et al., 2018). Pelling (2014) even starts his article on transformations with the exclamation: “Transformation breaths! It has entered the life cycle of dangerous words” (p.1). Pelling (2014) refers

to the many different conceptualisations of transformative change, causing two main problems. First, to effectively apply the concept, you have to know what it is, but you can get lost in the many different conceptualisations. Second, this open-ended nature can leave space for actors to shape the concept to best fit their needs (Pelling, 2014). By letting actors shape the concept however they want, there is a change that transformative change loses its revolutionary character (Blythe et al., 2018)

Multiple reasons have been put forward why the concept of transformation has become what some call an empty buzzword (Blythe et al., 2018). One of the arguments is the lack of pluralism in the discourses around transformation (Blythe et al., 2018; Pelling, 2014). So often, only one view on the concept is discussed or acknowledged in an article, and the fact that other ideas exist is not acknowledged, risking discursive hegemony, where there is one dominant way of looking at something (Blythe et al., 2018). Pelling (2014) also acknowledges this need for pluralism, saying: “the notion of transformation is not owned by any singular viewpoint and a range of uses accruing to a novel concept can stimulate creative growth” (p.4). Another reason ‘transformation’ might have become meaningless is because of the framing of transformations as apolitical and inevitable (Blythe et al., 2018; O’Brien, 2018). More and more, transformations are painted like something normatively needed, inevitable, with the risk of losing the debate and critical thinking around what transformations are and how they should be approached (Blythe et al., 2018; O’Brien, 2018). Furthermore, by framing transformations as apolitical you put them outside of the political debate, making it harder for people to bring in their views and diversify the debate and solutions (Blythe et al., 2018).

The discourses of transformation (and transformative change) as inevitable and at the same time ambiguous have led to policymakers taking creative liberty in applying the concept and being able to justify them (Blythe et al., 2018; Star, 2010). Both Blythe et al. (2018) and Feola (2015) see this lack of critical thinking when moving from describing a concept to prescribing a policy using that concept as a problem for the conceptualisation of transformation. Blythe et al. (2018) mention that “this shift, from theory to practice, is producing ambiguities and tensions” (p.1210). Feola (2015) and Pelling (2014) see academics as important actors in this issue since they often simplify the concept leaving out important distinctions, making it more salient for policy. Another example of how academics contribute to the ambiguity of transformations is the many articles that do not clearly and critically conceptualise what is meant by transformations, leading to many ambiguous conceptualisations to choose from (Ziervogel et al., 2016; Blythe et al., 2018; Pelling, 2014; Feola, 2015). According to Feola (2015), “the high conceptual elasticity and lack of empirical grounding of the concept of transformation generate the risk of voiding the term of meaning, and consequently easily co-opted by actors who aim to defend the status quo rather than promoting radical societal change” (p. 377). Therefore, a clear conceptualisation of transformative change can contribute to less ambiguous policy, in turn making it easier to implement the policy.

It is not the aim of this thesis to define transformations or transformative change. However, for clarity, transformative change in this research is about completely changing the current systems, through making changes on all dimensions and changing the current power relations. This is the definition of transformative change in the back of my head when I talk about how transformative the EGD is. That being said, as discussed above, there is an extensive debate on the topic (Pelling, 2014; Feola, 2015; Ziervogel et al., 2016; Blythe et al., 2018). So

the main focus of this research is to explore different conceptualisations of transformative change reflecting different views. Nevertheless, it is essential to see transformative change and related concepts, like transformations, as having different discourses around them because this will take into account the way we shape their meaning and their meaning shapes us. Understanding the discourse will give us more insights into how a concept is looked at, giving us a better understanding of the concept itself, something that is crucial in ambiguous concepts such as transformative change (Pelling, 2014; Blythe et al., 2018). Blythe et al. (2018, p.1213) argue that “policymakers can distort the language of transformation to define acceptable formulation of problems and solutions to those problems that serve to reproduce existing structures of power and domination and justify business as usual.”, which also highlights the importance of transformations and transformative change as a discourse and the impact they can have on the success of climate policy. Using discourse theory provides many exciting approaches to analysing the transformative change discourses and their use. In previous research on transformative change, Blythe et al. (2018) used discourse analysis to identify transformative change discourse and look at the impacts of that discourse. Eckert and Kovalevska (2021) and Samper et al. (2021) used discourse analysis to analyse the EGD. When looking at the more broad climate debate, discourse analysis has been used to research concepts such as green growth (Wanner, 2015; Stegemann & Ossewaarde, 2019). To fully understand this analysis, I will first outline my approach to understanding discourse theory and analysis.

2.3 Discourse Theory

This thesis uses discourse theory to investigate the different transformative change discourses present in the European Green Deal (EGD). According to Hajer (2006), “discourse is an ensemble of ideas, concepts, and categories through which meaning is given to social and physical phenomena, and which is produced and reproduced through identifiable set of practices” (p.67), this means discourse is both about saying and doing. Fielder and Catalano (2017) emphasise the importance of this doing for discourse because “discourse not only reflects the world around us but constructs it as well” (p.208). When it comes to transformative change, its use in the EGD is influenced by how the European Commission gives meaning to it; what are transformations? How should they be achieved? Who should be in charge? These are all questions influenced by a particular way of thinking; the discourse. The way the European Commission talks about transformative change and the strategies they propose to achieve this transformative change then perpetuates their discourses, influencing how others look at transformative change. Therefore, the European Commission has enough authority and expertise for people to take their solutions and ideas as the ‘right’ ones, as mentioned before in [chapter 1](#) (Eckert & Kovalevska, 2021; Ossewaarde & Ossewaarde-Lowtoo, 2020).

Commonly, when discussing discourse, there are many different definitions and interpretations. For this thesis, I will follow Foucauldian discourse theory. It focuses on who is included and excluded and how discourse is organised. Here, the concepts of power, truth and knowledge are crucial in explaining discourse. Power, to Foucault, is constituted through knowledge, and power reproduces this knowledge. Through this constant reproduction of knowledge, the status quo is maintained, and the people in power stay powerful (Foucault &

Rabinow, 1984). Foucault acknowledges that some practices that form discourse are not rational (Stahl, 2004). According to Weedon (1987, p. 108), Foucault defines discourse as “ways of constituting knowledge, together with the social practices, forms of subjectivity and power relations which inhere in such knowledges and relations between them”. Foucauldian discourse focuses more on the underlying power relations of the meaning we give things compared to Hajer (2006). However, in his definition, Hajer (2006) is more explicit about what a discourse consists of and how it is created. To Stahl (2004, p. 4330), the importance of Foucauldian discourse is that “it analyses and deconstructs our enlightenment ideas of rational communication. It questions our self-image and shows some of the underlying realities of modern societies”. When it comes to social change, Foucault argues that there is a constant competition for influence between different discourses. Social changes happen when this influence shifts and old dominant discourses are replaced by new dominant discourses (Sharp & Richardson, 2001).

With its underlying realities and focus on power, Foucauldian discourse makes it an excellent fit for this thesis. Because this thesis will focus on transformative change discourse and the underlying realities of the actual strategies. In addition, it will look at how the European Union (EU) discourse is organised and which ideas are included and excluded. The research on how the EU constructs and legitimises how the EGD functions can benefit from Foucault’s concept of power and social change. Focussing on who is included and excluded from the debate can show how including and excluding certain actors might benefit business-as-usual. When a dominant discourse excludes specific solutions, only certain approaches to climate change may be acknowledged. According to Stegemann & Ossewaarde (2019), this is happening with the discourse around green growth. New types of knowledge are difficult to establish and, with that, new power relations. Transformative change is stepping away from the status quo and thus needs new power relations to be successful. Therefore the way Foucault conceptualises power, and social change can provide interesting insights and guidance into what might be going on.

2.4 Discourse Analysis

The discourse in written and spoken communication can be researched through discourse analysis. I used discourse analysis to determine how the discourses around transformative change are present in the EGD and see how the EU maintains legitimacy through those discourses. Different transformative change discourses have different power relations, including and excluding specific solutions and narratives. Hence it is vital to analyse discourse to understand the concepts of power, how discourses come to be, which discourse is dominant in the EGD, and the role policies and strategies have in this shift. As with any social science theory, there are many different interpretations of discourse analysis. I will highlight the ones that best fit this research. Hajer (2006) defines discourse analysis as “the examination of argumentative structure in documents and other written or spoken statements as well as the practices through which these utterances are made” (p.66). The definition given by Paltridge (2012) is very similar; he defines discourse analysis as “an approach to the analysis of language that looks at patterns of language across texts as well as the social and cultural contexts in which the texts occurs” (p.1). These definitions are helpful because this research looks at the EGD to determine the structure and patterns around transformative change.

Context is an essential aspect of discourse analysis, it provides information on how we should act in certain situations (Paltridge, 2012). We need context to understand what the author or speaker is truly saying. The context influences the choices of the author or speaker, consequently, the text or other types of communication are also influenced by the context (Paltridge, 2012). The context for the EGD can be provided by the EU's history, the people in power, and the current geopolitical situation. Part of this context has been provided in [subchapter 2.1](#) on climate change. The influence context has on the interpretation of language, and therefore discourse makes it an essential part of discourse analysis.

Another essential component of discourse in discourse analysis is that discourse is seen as the “social construction of reality” (Paltridge, 2012, p.7); discourse is shaped by reality, and at the same time, discourse shapes reality. Thus, discourse analysis is intertwined with social constructionism (White, 2004). Social constructionism is the idea that every individual's reality is constructed through history, culture, and context (Houston, 2001). Discourse analysis investigates how discourse socially constructs reality by constructing social identity and social norms (Bazerman, 1990; Ainsworth, 2001; Swan & McCarthy, 2003). Discourse constructs social identity by giving meaning to a certain identity, such as professional or cultural. This identity construction is done by “defining groups, group's interests, their position within society and their relationship to other groups” (Ainsworth, 2001, p.3). The social norms are constructed through constant social pressure of what is acceptable social behaviour and what is not. What constitutes acceptable behaviour is shaped by processes throughout history and by culture (Swan & McCarthy, 2003). For example, as mentioned earlier, the European Commission's view on transformative change is shaped by its culture and history. Correspondingly, its reality and interpretation of transformative change shapes others' reality and further shape the Commission's reality. However, at the same time, the reality of the people doing a discourse analysis is also socially constructed. It is, therefore, essential to be aware of this interplay and the subjective nature of discourse analysis.

Using discourse analysis, you can research how the influence of a discourse changes by utilising the concepts of discourse structuration and discourse institutionalisation. Structuration is when a discourse is used by many “to conceptualise the world” (Hajer, 2006, p.70), and institutionalisation happens when the discourse “solidifies into institutions and organisational practices” (p.70). If both happen, new discourses become dominant (Hajer, 2006). Typically, there is not one discourse at play but multiple, and they are all struggling to become the hegemonic discourse (Laclau & Mouffe, 1985). Discursive hegemony is when one discourse becomes “the ‘natural’ perspective and acquire[s] a seemingly universal significance, thus representing ‘reality’” (Wojczewski, 2018, p.34). In this thesis, discourse analysis will be defined as an approach to identifying linguistic structures in written documents and spoken communication whilst also examining the social context these structures are influencing and influenced by. Through this analysis, I will broadly examine how linguistic and social structures change to facilitate a particular way of talking about a topic, in this case, transformative change, as well as how those structures influence the way we talk about transformative change. In the EGD, there are particular discourses around transformative change. Once this discourse becomes more mainstream because of the influence the EU has on public debate, it is likely for this discourse to become dominant.

Discourse analysis is a valuable tool to highlight the discourses present and absent in the EGD. Besides the general importance of discourse analysis, a more specific case for the importance of the approach around climate and environmental politics can be made. Particularly, the concept of multiple realities and the constant construction of those realities are essential. Sharp and Richardson (2001) argue that a big part of the concepts in environmental politics, like transformative change, is often not implemented top-down and thus susceptible to continuous change in meaning, as was the case with the concept of transformative change. Furthermore, climate politics and the concepts used therein, just like anything else, are shaped by the current norms, values and practices, which can be uncovered through discourse analysis (Hajer & Versteeg, 2005). According to Hajer and Versteeg (2005), this characteristic of environmental and climate policy makes discourse analysis useful for three reasons “the capacity to reveal the role of language in politics, to reveal the embeddedness of language in practice and to illuminate mechanisms and answer ‘how questions’” (p.175). Because I look at the role of language by researching *how* the use of language shapes transformative change in the EGD, these reasons can be coupled to my thesis. Additionally, I looked at the embeddedness of language in practice by investigating how meaning was given to things through language and what norms were underlying those meanings. Another reason Hajer and Versteeg (2005) advocate for discourse analysis is because it “allows one to see how a diversity of actors actively try to influence the definition of the problem”. As previously mentioned in [subchapter 2.2](#), this is also happening with the definition of transformative change (Pelling, 2014; Blythe et al., 2018). Furthermore, climate policy is controversial; there are many different ideas on the issue and how to solve it (see [subchapter 2.1](#)). Discourse analysis can help uncover those different ideas and discourses. Understanding who is influencing the definition and how they influence it is helpful to understand the issues at hand. Additionally, understanding the frame actors are trying to portray can discover their motives and help hold them accountable.

One specific type of discourse analysis that can be used in climate politics, and therefore the EGD, is critical discourse analysis (CDA). According to Wodak (2011), CDA aims to analyse “opaque as well as transparent structural relationships of dominance, discrimination, power and control as manifested in language” (p.53). Mullet (2018) defines CDA as “a qualitative analytical approach for critically describing, interpreting, and explaining how discourses construct, maintain, and legitimise social inequalities” (p.116). Key concepts of CDA include context, power, hegemony and structuration (Mullet, 2018; Blommaert & Bulcaen, 2000). This chapter has already discussed these concepts previously. Topics popular for CDA include a form of “power abuse, injustice or inequality” (Mullet, 2018, p.117). CDA argues that language is a power resource, and institutions hold those power resources away from others. CDA is greatly influenced by Foucault and Foucauldian discourse which are explained in the previous [subchapter \(2.3\)](#). Both Mullet (2018), and Blommaert and Bulcaen (2000) argue that CDA aims to make the way power operates in our modern society more transparent. Blommaert and Bulcaen (2000) add that the goal of CDA is “empowering the powerless, giving voices to the voiceless, exposing power abuse, and mobilising people to remedy social wrongs” (p.449). CDA exposes the underlying power structures and values (Mullet, 2018). CDA fits well with climate policy because there is much injustice surrounding it. Often the rich and powerful, the main drivers of climate change, are the least affected (Schelling, 1992; Heil & Wodon, 1997; Keohane, 2018; Porter et al., 2020). According to Keohane (2018), poorer countries will be

more affected by climate change because the effects are worse in the tropics and that is where most of the countries are located and because they do not have sufficient resources to adapt. For example, Holden (2018) focuses on the Philippines, where the number and severity of typhoons have been increasing due to climate change. While the Philippines do not majorly attribute to climate change, they have to face the consequences, which is unjust, according to Holden (2018). Many also call toward climate injustice's (neo-)colonial nature (Whyte, 2016; Holden, 2018; Spiegel, 2021). Spiegel (2021) sees the expansion of fossil fuel extraction on native land in Canada as an example of neo-colonial power relations. Big corporations do everything in their power, such as threats of lawsuits, to oppress the communities trying to stop fossil fuel extraction (Spiegel, 2021). Asymmetric power relations exist; big corporations are the dominant power (Spiegel, 2021). Whyte (2019) also argues that for indigenous peoples, it is hard to fight climate injustice because in the current system they do not have enough power to coordinate action with their governments. Whyte (2019) also warns: “Will this just be another situation [...] where a call to urgency is used to justify solutions that ultimately harm indigenous peoples? That's how colonial power has been wielded in the past, that is, by using real or perceived urgencies to mask or justify privilege, harm, and injustice” (p.5). Climate change is full of injustice and uneven power relations. At the same time, claims are made that powerful companies seem to have it in their best interest to keep business-as-usual, many moving only slowly towards change (Levy & Egan, 2003; Wright & Nyberg, 2017). Transformative change is about going against the status quo and therefore against whatever maintains and legitimises business as usual. Transformative change takes into account these injustices and the social aspects of climate change. It focuses on including all groups equally, thus changing the current power dynamics, where certain groups are excluded. Therefore, it is important to analyse the discourses around power in the EGD.

2.5 The Many Conceptualisations and Drivers of Transformative Change

As discussed before in [subchapter 2.2](#), there are many different ways to conceptualise and apply the concepts of transformations and transformative change. This subchapter uses transformations, transitions, and transformative change almost interchangeably. Although there are many debates about the difference between the three (e.g. Hölscher et al., 2018), most of the articles I looked at used them interchangeably, so in order to stick closest to their wordings and interpretations, I will use one of the three concepts based on what the articles use. Therefore, it is intriguing to investigate what conceptualisation is applied in different instances, why it is applied, how, and the consequences. The EGD is an especially interesting document to investigate (European Commission, 2019b). It is promoted as the most concrete climate policy that will make the EU a leader in limiting the impact of climate change, and it includes ‘transformative policies’. The EGD is an excellent example of different ways to look at transformative change; it uses the concept and proposes strategies that should reflect transformative change, but there is also criticism of their use of transformative change, as discussed in the [introduction](#) (see e.g. Ossewaarde & Ossewaarde-Lowtoo, 2020). This indicates that multiple conceptualisations of transformative change exist. Besides research on the theoretical conceptualisation, much research has also been conducted on what drives transformative change (see e.g. O’Brien,

2012; Scoones et al., 2020; Head, 2020; Vogel & O'Brien, 2021). If we want to research transformative change strategies, we need to know what drives transformations to provide guidelines for a strategy that supports transformative change.

As briefly mentioned in the [introduction](#), transformative change is about transforming the current way of doing through all systems on all levels of society. The definition and drivers of transformative change are considered ambiguous; often, it is unclear what needs to be transformed and how, which can lead to meaninglessness of the term (Scoones et al., 2020; Vogel & O'Brien, 2021). I will provide an overview of different discourses of transformative change and debates around the processes that generate and drive transformations. A summary can be found in Table 1. The overview will be very broad in what transformative change is; to many, some discourses will not be considered transformative change. This broad overview was done to ensure that as many different ideas on the topic of transformative change were captured. Since the different discourses from this literature review will guide the analysis of the EGD, it is helpful to have a broad spectrum. This subchapter and Table 1 form the analytical framework of this research, which will guide the data analysis. A broad spectrum of discourses allows a bigger chance that the ideas of the EGD will be covered in the data analysis. The purpose of the analytical framework is to provide a guideline on what types of ideas exist when it comes to transformative change. This guideline will provide a consistent analysis between the first and second research questions, which will allow for an accurate analysis of the mismatches between the words and actions. The overview is roughly chronological; it reflects how the concept developed from transition studies toward transformative change over time. However, these sometimes developed parallel to another or in a non-linear way. The overview is also structured from a more technical to a more social focus on transformative change and its drivers.

Research & Development

The concept of transitions gained popularity in the 1990s and 2000s when the dominant study area was technological transitions (Kemp, 1994; Geels, 2002). The first discourse around transitions and transformative change I have differentiated is *research and development* (R&D). Both in research and policy, *R&D* is a common view on how to achieve transitions. Innovation and change should have growth and prosperity as their main goal, and science and technology are the way to achieve that (Schot & Steinmueller, 2018). The strong focus on growth is one of the main characteristics of this discourse and is also reflected in Fazey and colleagues' (2018) view on incremental change where the purpose is to 'improve performance'. The policy around this discourse has what Diercks et al. (2019) call a 'narrow view on innovation'. This narrow view means that any innovation is seen as good innovation, society is not involved, the driver is on the supply side, and scientific breakthroughs are the goal. Furthermore, the aim is to make *R&D* as easy and profitable as possible for the private sector (Schot & Steinmueller, 2018; Diercks et al., 2019). The state's role is to finance the private sector so the private sector can do the research (Schot & Steinmueller, 2018; Scoones et al., 2015; Diercks et al., 2019). Therefore, public-private partnerships (PPPs) are essential components of *R&D* as they bring together the funding from the public sector (mainly the state) and the innovation from the private sector (Schot & Steinmueller, 2018). Furthermore, knowledge production in the *R&D* discourse focuses solely on scientific knowledge, preferably in controlled laboratories, "which

permits a systematic accumulation of deliberately created results that can add up to robust findings” (Diercks et al., 2019, p.883). Schot and Steinmueller (2018) argue that *R&D* does acknowledge the adverse effects that these technologies can have, but those are the consequence of scientific knowledge still lacking. This idea matches with Scoones et al. (2015), who argue that in a technocentric view of transformations, technology is seen as a magic bullet that will solve all issues, even its own issues. An example of the *R&D* discourse could be bio-fuel, which is considered a technological breakthrough in clean energy production. Through researching and developing different kinds of fuels, we finally had a new fuel that would be the magic bullet to solve the issue of fossil fuels. Another aspect of biofuels that matches this discourse is the fact that during the development, there were barely any considerations of the social impacts of the breakthrough technology (Westley et al., 2011). Afterwards, social impacts emerged, such as the issue of using food for fuel when people were starving, the creation of monocultures, and farmers losing their land and income. Overall, *R&D* looks at transformative change from a technical side, with technology and knowledge productions as the main goals and drivers of transformative change.

Innovation Systems

As research, policy, and time progressed, the idea that all innovation is good innovation was gaining criticism. As a response, the discourse of *innovation systems* was introduced as a novel way to view innovation and transitions. The *innovation systems* discourse is about creating enabling frameworks for (mainly technological) innovation to happen (Diercks et al., 2019). *Innovation systems* are seen by many as the solution to the major environmental problems and as the way toward sustainability (e.g. Altenburg & Pegels, 2012; Schlaile et al., 2017). The main difference with *R&D* is that within the *innovation systems* discourse, it is acknowledged that some innovations are more effective than others, which is thought to be why some countries do better than others (Schot & Steinmueller, 2018). For example, Freeman (1995) argues that Japan employed more effective innovations and was able to quickly rise and compete with markets like the US. To Weber and Rohracher (2012), the main driver of transformative change is “comprehensive system innovations”. Rather than moving away entirely from a system, the way we operate the system is changed. Weber and Rohracher (2012) acknowledge a need to change our current way of operating the economic system but seek the solution within the system by changing innovation policy and retaining a focus on growth and competitiveness. According to this discourse, the operation of the system is changed through research, technology and innovations. These systems often consist of a network of firms all within the same sector, region or nation (Geels, 2004). Another difference with *R&D* is the actors involved; where *R&D* has a narrow view of actors, *innovation systems* have a broader view (Diercks et al., 2019). Diercks et al. (2019) and Schot and Steinmueller (2018) point to the ‘triple helix’, where universities, governments and industry are involved. Not only who are involved but also how they are involved differentiates *innovation systems* from *R&D*. Interaction and learning between actors are seen as crucial drivers for successful innovations in the *innovation systems* discourse (Diercks et al., 2019; Schot & Steinmueller, 2018). This way of interacting also changed the way knowledge was handled, instead of only producing knowledge, knowledge was being seen as something to be interacted with, something to use, and something that could come from the triple helix all working together, instead of only researchers as in *R&D*. Of

course, there are also many similarities between *R&D* and *innovation systems*; growth is still the primary goal, and the market is seen as the main decider of winners and losers (Schot & Steinmueller, 2018; Diercks et al., 2019; Altenburg & Pegels, 2012). An example of *innovation systems* is the space race, where there was a goal of getting to space, and everything was aligned in a way to create the best conditions to make this happen. John F. Kennedy, the United States president at the time, acknowledged that it would be costly and challenging but worth it (Mazzucato, 2021). Nowadays, we focus more on the costs of something instead of the groundbreaking outcome it could have (Mazzucato, 2021). This would be the other way around in a mission economy, just like in the 1960s with the space race. When it comes to *innovation systems*, it sees creating an enabling framework to make all types of innovation happen as the main purpose of policy and as the driver of transformative change. Furthermore, growth and output are very important, and the market is the deciding factor in which innovation succeeds and fails.

Socio-technical Transition

Similarly to what happened with the *R&D* discourse, critiques arose around the limited view of *innovation systems*. Although the effectiveness of innovations is considered more, it ignores its impact. Furthermore, it did not consider the societal dimension sufficiently (Farla et al., 2012; Avelino, 2017). More types of actors were involved in the *innovation system*, but the agency of consumers was still practically none. These critiques put into motion a shift from technological *innovation systems* to *socio-technical systems*, where the use of technology and the social aspect of transitions are acknowledged more (Geels, 2004). These systems focus on many different actors and have a time scale of multiple decades (Geels, 2004; Farla et al., 2012). According to Markard et al. (2012, p.956), a *socio-technical transition* “is a set of processes that lead to a fundamental shift in socio-technical systems”. In short, socio-technical systems are: “linkages between elements necessary to fulfil societal functions (e.g. transport, communication, nutrition)” (Geels, 2004, p.900). These systems consist of actors, institutions (e.g. societal norms, regulations), material artefacts, and knowledge (Geels, 2004; Markard et al., 2012). There seems to be a consensus in the literature regarding what these *socio-technical transitions* are: many different actors are involved, both the technical and societal dimensions of transitions are recognised as necessary, and the transition spans multiple decades (Farla et al., 2012; Khmara & Kronenberg, 2020; Burch et al., 2014, Patterson et al., 2017; Feola, 2015; Markard et al., 2012). However, there are different ideas on what the goal of *socio-technical transitions* should be, for example, growth or social justice. The goal might be different, but the approach of both social and technological focus and the focus on regime shifts (as explained later) is what brings those ideas together (Khmara & Kronenberg, 2020). For this thesis, I will focus on *socio-technical transitions* where the goal is a shift towards sustainable production and consumption. This focus is what I have found most in literature and thus, to me, best represents this discourse. Furthermore, this is also what sets this discourse apart more from the others. As will be discussed later, the sustainability pathways discourse already has a focus a social justice. So to avoid confusion and represent *socio-technical transitions* best, the goal of this discourse is sustainable consumption and production. The focus on sustainable production and consumption is reflected in green growth and the green economy. In short, green growth is the idea that resource use and growth of the economy can be decoupled and, therefore, environmental degradation can be reduced (Hickel & Kallis, 2020).

Even though the *socio-technical transition* discourse is a broad discourse with different interpretations of reaching the goal of sustainability, the defining features of this discourse come from the guiding framework, which is multi-level perspective (MLP). In short, MLP is a theory on how transitions occur through interaction between three levels. These levels are niche-innovations, socio-technical regimes, and the socio-technical landscape (Geels & Schot, 2007). Geels and Schot (2007, p.399) define transitions as “changes from one socio-technical regime to another”. Niche-innovations (or technological niches) are small-scaled spaces where radical innovations occur. In these niches, the unstable innovations are kept away from the workings of the market and are further developed and stabilised in small networks. The unstable innovations are innovations that are still in development and would not survive the workings of the market. So to make sure the innovations thrive, they are kept away from the market. Socio-technical regimes are “shared cognitive routines” in a community (Geels & Schot, 2007, p.400). These shared cognitive routines are sets or rules a community follows (Geels, 2004). Lastly, the socio-technical landscape is the exogenous context that influences regimes and niches and changes slowly over multiple decades. In MLP theory, changes can start at niche and regime level (Geels & Schot, 2007). At niche level, changes can be prompted when the innovations get momentum and, among other things, are supported by powerful actors. Through pressure from the landscape level on the regime, changes can happen at regime level. Also, destabilisations can create “windows of opportunity” for niche-innovations at the regime level. Transitions happen when these processes align (Geels & Schot, 2007). MLP has received some criticism, mainly on the lack of agency and the operationalisation of the regimes (Geels, 2011). However, MLP is at the core of *socio-technical transition* and originated from, therefore, it is discussed in this research.

According to Markard et al. (2012, p.956), “Socio-technical transitions differ from technological transitions in that they include changes in user practices and institutional (e.g., regulatory and cultural) structures, in addition to the technological dimension”. In the analytical framework of this research, the *R&D* and *innovation systems* discourses fall under transitions driven by technology. This idea is also reflected by Fazey et al. (2018) and Schot and Steinmueller (2018), who acknowledge a shift happening from innovation for economic growth to innovation to achieve societal objectives. *Socio-technical transition* is also more reflective compared to the previous two discourses, looking at the current systems and analysing whether they have the intended effects and if not, how to change that system, and not only that one system but also the systems it is influenced by (Fazey et al., 2018; Schot & Steinmueller, 2018). One of the leading scholars on *socio-technical transition* and MLP, Frank Willem Geels, puts forward the shift from horse-drawn carriages to automobiles as an example of a *socio-technical transition*. The introduction of automobiles was not only a technical feat and transition, but it also drastically changed the way society operated, e.g. further distances could be travelled, and roads lost their dual purpose of transport and gathering point (Geels, 2005). To summarise, *socio-technical transitions* see green growth as the main driver of transformative change towards sustainable consumption and production. It also sees both the social and technical side of innovations and involves a diverse range of actors.

Transformative Social Practice

In many ways, *socio-technical transitions* differentiate from the previous discourses; it is more radical, social, and sustainably oriented. However, the emphasis is still on achieving growth through innovation. Some researchers (e.g. Schot & Steinmueller, 2018; Diercks et al., 2019) already see socio-technical transitions as transformative. Yet, others do not think this is radical enough, they want a more significant focus on the social aspects of our systems. One of those more social views is reflected in the discourse of *transformative social practice*. The discourse is based on the social practice theory of Giddens (1984) but Shove et al. (2012) have developed this concept further by arguing that understanding social practice can help us understand and achieve transformative change.

Social practice is anything someone does, and in social practice theory, it is the unit of analysis for social behaviour (Kuijer, 2014). To quote Reckwitz (2002, p.249), one of the leading researchers of social practice theory, a social practice is “a routinized type of behaviour which consists of several elements, interconnected to one other: forms of bodily activities, forms of mental activities, ‘things’ and their use, a background knowledge in the form of understanding, knowhow, states of emotion and motivational knowledge”. Practices consist of three interconnected elements; materials, competences, and meanings (Shove et al., 2012). Materials are all the physical things in a practice, any object, even the human body, is part of this. Competences are “learned bodily and mental routines”, this does not solely include skills but also the way we approach certain situations and how we feel about them (Kuijer, 2014, p.27). Lastly, meanings are the shared ideas we have about a concept, which establish why and how we interact with that practice as well as the “the social and symbolic significance of participation” (Shove et al., 2012, p.22).

The main argument of Shove et al. (2012) is that change does not come from individual behaviour accumulating towards something. People can rationalise their actions, but they are not fully conscious of them. Rather, they are guided by the structures of meaning and rules in place (Shove et al., 2012). Instead, they argue that change should come through *transformative social practices* and that the development of social practices can help develop sustainable behaviour. Shove et al. (2012) disagree with the theory of social structures that guide every detail of our daily lives. Instead, Shove et al. (2012) follow the theory of structures of meaning and rules as Giddens (1984) defines them. Shove et al. (2012) see structures and agency as continuously influencing each other, stating: “activities are shaped and enabled by structures of rules and meanings, and these structures are, at the same time, reproduced in the flow of human action” (p.3). When it comes to the drivers of transformative change, educating people on the impacts of their choices or giving monetary incentives will not cause change (Shove et al., 2012). The processes of change should not be understood as a result of specific social structures and should not have human agency as its primary driver. Furthermore, Shove et al. (2012, p.3) add: “[n]or do we go along with the view that change is an outcome of external forces, technological innovation or social structure, somehow bearing down on the detail of daily life”.

In order to achieve change, the solution or ideas should become part of daily life and thus part of society. Therefore, they call for integrating research on innovation and consumption because only technology is not the solution. The use of this technology only becomes a need when it is integrated into social practice (Shove et al., 2012). Another difference between *transformative social practice* and *innovation systems*, according to Shove et al. (2012), is that

social practice is more ongoing and dynamic; it can be hard to predict what people will want. To account for this, the solution needs to evolve constantly. Both consumers and producers are involved equally in transforming social practice by influencing each other.

Shove et al. (2012) see changing practices as the way to achieve transformative change towards sustainable living. Grin et al. (2010, p.2) agree with the need to change social practices, arguing that transformations should “involve, by definition, changes in established patterns of action as well as in structure (which includes dominant cultural assumptions and discourses, legislation, physical infrastructure, the rules prevailing in economic chains, knowledge infrastructure and so on)”.

According to the *transformative social practice* discourse, one of the drivers to transform towards a sustainable future is that elements (materials, meanings, competences) that are part of unsustainable practices (bad elements) should be reconfigured or replaced by good elements that build up to sustainable practices. Furthermore, we need to look at which elements are missing from social practice that hinders the implementation of innovations. Shove et al. (2012) argue that too much of the research is on how to stimulate innovation and technology production but not enough research is done on what regimes underly the unsustainable practices. In addition, Shove et al. (2012) also highlight the importance of the state's involvement because they influence the available materials, the competencies, and what meaning is given to social practices. Further arguing that “encouraging citizens to adopt pro-environmental behaviours downplays the extent to which the state sustains unsustainable institutions, conventions and ways of life, and the extent to which it has a hand in structuring options and possibilities” (p.164). An example that Shove et al. (2012) give of transformative social practice is energy reduction by limiting air conditioning (AC) in offices in Japan by introducing a new meaning of what is normal to wear to the office. By increasing the range of ‘normal’ social practice beyond just wearing suits, the offices could use the AC less, and the workers adjusted their clothes to the situation. The movement started with higher-ups and allowed other workers to feel comfortable in this new practice. As a result, the bad (unsustainable) elements of turning the AC on were replaced by good (sustainable) elements, namely wearing different outfits. Replacing bad elements with good elements and establishing new social practices is what is at the core of *transformative social practice*. In short, *transformative social practices* sees social practices as the key to a sustainable future. These social practices should come from removing unsustainable elements and from technology integrated with society.

Social-ecological Transition

Transformative social practice is a response to the lack of social aspects taken into account in transition studies. The next discourse came as a response to the lack of ecological aspects; *social-ecological transitions* (SeT). *SeT* puts ecology in the foreground instead of being in the background like the previous discourses (Olsson et al., 2014). Social-ecological transitions are about fundamentally transforming our relationship with the biosphere to become more sustainable (Feola et al., 2015). In short, *social-ecological transition* “emphasizes that a focus on connectedness between nature and human society is essential for understanding sustainability transformations needed for humanity to stay within planetary safe operating space” (Olsson et al., 2014). *SeT* is all about acknowledging the link between humans and ecosystems and transforming that relationship into a more sustainable one (Patterson et al., 2017). Resilience is

important in *SeT* because transformations are seen as either building or reducing resilience depending on whether the approaches have intended or unintended effects. Resilience can lead to “a more connected global society [which] has the means to quickly respond to change and stimulate innovations on a planetary scale” (Westley et al., 2011, p. 776). According to *SeT* scholars, resilience is built on a healthy relationship with the ecosystems, or biosphere, allowing for the ecosystem's production of services to be respected (Olsson et al., 2014). Folke et al. (2011) see ‘reconnecting to the biosphere’ as the primary strategy to reach a global, sustainable way of living. Reconnecting to the biosphere entails going beyond the common dichotomy of humans and nature and seeing them as interconnected. An example of a *social-ecological transition* could be a switch from an anthropocentric to a bio- or ecocentric worldview; moving away from the idea that humans are at the centre and other beings are inferior to humans toward a view where all living and non-living beings are equal and important in their way. Furthermore, a healthy biosphere should be the goal of any development and innovation, according to Folke et al. (2011). According to the *SeT* discourse, this can be done by critically viewing those developments and innovations. Many strategies have good intentions, but the unintended effects could steer the strategy to doing more harm than good (Westley et al., 2011; Blythe et al., 2018).

Biofuels are often named as an example of these unintended adverse effects (e.g. Westley et al., 2011; Folke et al., 2011). The intention was good; shifting from fossil fuels to a more sustainable fuel source. However, the impacts of growing the crops for biofuels were not considered enough, which led to the emergence of monocultures, less land available for food production, and farmers losing their land and ability to produce their sustenance (Westley et al., 2011). According to Westley et al. (2011, p.763), in order to solve this issue of unintended adverse effects, we need “to stimulate the kinds of innovation that solve rather than augment our environmental challenges”. When it comes to knowledge, *SeT* pleads for multiple types of knowledge and worldviews to be considered (Patterson et al., 2017; Westley et al., 2011). Furthermore, not only scientific but also local knowledge and worldviews are seen as necessary. When it comes to putting transformations into motion, it should be bottom-up and top-down. Innovation-wise, the focus is more on social innovations than technical innovations (Brand & Wissen et al., 2018; Westley et al., 2011), with Westley et al. (2011) arguing that technical innovation is path-dependent and part of the reason we are in this unsustainable world to begin with. Rather, the focus should be on social innovation since the problem is the divide between social and ecological systems we humans have created. Thus the solution is moving away from this separation and towards linkage between humans and non-humans (Westley et al., 2011). Westley et al. (2011, p.767) define social innovation as an innovation that is focused on “the dynamics of scaling up new ways of thinking, new processes for action and decision making, new designs for behavior and new social programs (inventions) for greater durability and impact”. In short, *social-ecological transition* is about changing how we think about and interact with nature.

Sustainability Pathways

Where *SET* gains in ecological dimensions, it loses in social dimensions, especially around power and agency (Cote & Nightingale, 2012). It does not take into consideration any issues that could emerge from power differences or different opinions among actors (Patterson et al.,

2017), and its focus lies on the biophysical world rather than the social world (Olsson et al., 2014).

Sustainability pathways take power, agency and different values into consideration when transforming towards a more sustainable future. According to Leach et al. (2007, p.12), the discourse of *sustainability pathways* reflects how “a given system changes over time. Depending on the issue in question, several different scales may be important, sometimes simultaneously and in overlapping ways”. Especially politics and the multiple views people can have towards sustainability are considered, this is similar to the theory of the social construction of reality explained in [subchapter 2.4](#). It also critiques the “technocratic and depoliticised development approaches” (Patterson et al., 2017), which are present in the previous discourses, most notably *R&D* and *innovation systems*, but also social-ecological system transitions, are depoliticised. As mentioned in [subchapter 2.2](#), transformative change is sometimes framed as apolitical, which is criticised (Blythe et al., 2018). According to Leach et al. (2007, p.8-9), *sustainability pathways* put “political and institutional relationships, including those of power/knowledge”, at the centre.

Marginalised people are given extra attention within *sustainability pathways*, specifically how the current dominant structure hinders their ability to participate in decision-making about their future and how the marginalised can be given more agency about their future (Patterson et al., 2017). Therefore, *sustainability pathways* also focus on institutional change and the politics around it (Blythe et al., 2018). It also highlights that “actors at different scales perceive and experience change differently” (Patterson et al., 2017, p.9). These different narratives result from each actor's “social-economic-political positions” (Leach et al., 2007a). Another stance within *sustainability pathways* is that transformations towards sustainability should also lead to more justice and poverty reduction (Leach et al., 2013).

Regarding policy, *sustainability pathways* discourse does not argue for a specific approach or pathway. Rather it argues for cultivating plural pathways because no one pathway is the correct one, and not one (type of) actor should be the decider (Stirling, 2015). Which pathway has become dominant is a matter of competition and the result of uneven power dynamics (Scoones et al., 2015). This needs to change if we want more just pathways. The power dynamics and institutions perpetuating them need to change to allow everyone to have an equal say in their future (Scoones et al., 2015). Scoones et al. (2015, p. 24) define ‘just’ as “that they pay due attention to those whose livelihoods are dependent upon the existing way of doing things and who stand to lose out under many proposals for green transformations, and that benefits and risks from change are fairly distributed”. A research organisation that does a lot with *sustainability pathways* is STEPS (Social, Technological and Environmental Pathways to Sustainability). STEPS researches ways to achieve sustainability through these pathways. One of their projects is about the socio-cultural and political aspects of low-carbon energy transitions in developing countries and how energy companies frame this transition versus how locals experience it (STEPS Centre, 2017). STEPS aligns with *sustainability pathways* because they focus on the pathways, the marginalised, and how transitions can happen in a just way. In brief, *sustainability pathways* focus strongly on ensuring a balance between human development objectives, justice, and ecological sustainability.

Systemic Transformation

Systemic transformation differs from the other discourses in that its goal is to fight for transformation instead of accommodating it (Patterson et al., 2017; Blythe et al., 2018). It focuses on “contesting [in this context: fighting for] change and transforming social and political relations and paradigms to open up new possibilities for the future” (Patterson et al., 2017, p.10). To reach this goal, the problem needs to be tackled at the roots, the systems, and the dynamics that have created the environmental issues we are facing today (Patterson et al., 2017; O’Neill & Handmer, 2012). *Systemic transformation* aims to “alter fundamental systemic structures and paradigms that produce vulnerability in the social sphere” (Patterson et al., 2017, p.7). In contrast to the other discourses discussed in this subchapter, *systemic transformation* looks at all systems (Patterson et al., 2017; Blythe et al., 2018; Pelling et al., 2015). Vogel and O’Brien (2021) argue to include at least “social, cultural, economic, political, institutional, demographic, psychological, behavioral, and technical dimensions” (para. 1). The *systemic transformation* discourse fits best with what transformative change was initially intended to be about. It matches the definition provided in the [introduction](#) and [subchapter 2.2](#). When changing these systems, power must be critically looked at (Patterson et al., 2017; Fedele et al., 2019). Certain power dynamics can disproportionately affect marginalised groups and increase inequality (Eriksen et al., 2015; Blythe et al., 2018; Patterson et al., 2017). Another result of power relations is a limited view of what is possible, as it often does not allow plurality (Patterson et al., 2017). *Systemic transformation* is all about altering the way we approach things and thus broadening the view of what is possible (Patterson et al., 2017; O’Brien, 2012). Pelling (2010) argues for the need to create new alternatives and possibilities. Vogel and O’Brien (2021) also follow this idea and see transformative change as “new, collaborative approaches to knowledge systems and narratives of change” (para. 2). These new systems and narratives can then allow for more inclusive solutions by expanding the idea of what is possible.

According to scholars following the *systemic transformation* discourse, our current norms and values need to change; we must contest the status-quo (Fedele et al., 2019; Lonsdale et al., 2015). This change is not just about what is possible regarding technology but also about human behaviour and social relationships (Pelling, 2010; O’Brien, 2012; O’Neill & Handmer, 2012). However, changing behaviour is not seen as systemic enough to achieve the change needed, with Pelling et al. (2015) saying it “is likely to be observed less through fundamental changes in behaviour, and more through changes in the social contexts in which they emerge”. Transformative change has a pluralist view, where many different ideas are taken into consideration, and an open mind is kept toward all sorts of ideas (Patterson et al., 2017). O’Brien (2012, p.670) nicely summarises all the different approaches, arguing that they “may include technological innovation, institutional reforms, behavioural shifts and cultural changes”. An example of a *systemic transformation* is the shift from a system of (economic growth) toward a system of degrowth where production and consumption are scaled-down and where the goal is not just growth for the sake of growth (Cosme et al., 2017).

Something unique about *systemic transformation* is that it acknowledges the difficulty of gaining and sustaining support for the measurements (Kates et al., 2012; Fedele et al., 2019). Fedele et al. (2019) acknowledge that the radical changes and high investments needed for systemic transformation might make gaining support difficult. Additionally, the current people in power benefit more from keeping the status quo, making it more challenging to implement

systemic transformations (Fedele et al., 2019). To gain and sustain support, external stressors (e.g. forest fires) and local leadership are crucial (Kates et al., 2012). Furthermore, internal forces that could help gain and sustain support are, for example, effective institutions and understandable options (Kates et al., 2012). Kates et al. (2012, p.7159) further elaborated, arguing that internal drivers of *systemic transformation* include “public values and attitudes and the availability of understandable and socially acceptable options”. According to systemic transformation, transformative change is about fundamentally changing our current systems and shifting away from unsustainable systems towards sustainable systems.

Table 1*Different discourses of transformative change, their sources and characteristics based on a literature review*

Discourse	Frames that the discourse consists of	Main characteristics
Research and development	<ul style="list-style-type: none"> • State-Led (Scoones et al., 2015) • Technocentric (Scoones et al., 2015) • Science And Technology Policy (Diercks et al., 2019) • Incremental (Fazey et al., 2018) • Research And Development (Schot & Steinmueller, 2018) 	<ul style="list-style-type: none"> • Goal: scientific and technological knowledge production • Type of innovation: technical • Actors: State that finance, private sector that perform R&D, scientists • System: technological • Innovation for growth • All innovation is good innovation • Technology as magic bullet for crises • State should finance, private sector should perform R&D • Policy is based on the linear model of innovation • Policy provides favourable conditions for businesses to conduct R&D
Innovation systems	<ul style="list-style-type: none"> • Technological Innovation Systems (Burch et al., 2014) • Innovation Systems Policy (Diercks et al., 2019) • Systems Of Innovation (Schot & Steinmueller, 2018) • Innovation of systems (Weber and Rohracher, 2012) 	<ul style="list-style-type: none"> • Goal: Focus on creating enabling framework conditions for any innovation to happen • Type of innovation: technology • Actors: Triple helix of actors, academia, industry and government • System: technological • Not all innovation is good innovation • Interactions between actors are important • The market should pick winners • Growth and output are important • It is crucial to have a growing economy to keep up in international markets • User-producer relations are crucial

Socio-technical transitions	<ul style="list-style-type: none"> • Marketised (Scoones et al., 2015) • Transition Management (Burch et al., 2014) • Transformative Innovation Policy (Diercks et al., 2019) • Transitions Approaches (Patterson et al., 2017; Blythe et al., 2018) • Regime Shift (Feola, 2015) • Reform (Fazey et al., 2018) • MLP (Geels & Schot, 2007; Burch et al., 2014) • Strategic Niche Management (Burch et al., 2014) • Societal Transition (Feola, 2015) • Transformative change (Schot & Steinmueller, 2018) 	<ul style="list-style-type: none"> • Goal: green growth to stop pollution and environmental degradation • Type of innovation: social and technological • Actors: diverse range • System: socio-technical • Societal and economic policy agenda • Change the system towards more sustainable production and consumption • Reflective towards own strategies • Co-evolution
Transformative social practice	<ul style="list-style-type: none"> • Social Practice (Feola, 2015) 	<ul style="list-style-type: none"> • Goal: changing social practice to move toward a more sustainable way of living • Type of innovation: sustainable social practices • Actors: consumers and producers • System: social • State should be involved because they regulate the elements • Development of certain social practices can help develop sustainable behaviour • Sustainable elements should replace unsustainable elements • Technology will only help if it is integrated into social practice • Ongoing and dynamic

Socio-ecological transformation	<ul style="list-style-type: none"> • Socio-Ecological Transition (Feola, 2015) • Social-Ecological Transformations (Blythe et al., 2018) • Social-Ecological Transformations (Patterson et al., 2017) 	<ul style="list-style-type: none"> • Goal: transformation through changing the relationship with the environment and the way we interact with it • Type of innovation: social • Actors: everything within the biosphere • System: ecological, social • Multi-scalar • The capacity of the ecosystem's production of services should be respected • Critical view of strategies and their intended and unintended effects
Sustainability pathways	<ul style="list-style-type: none"> • Sustainability Pathways (Patterson et al., 2017; Blythe et al., 2018) • Pathways to sustainability (Scoones et al., 2015) 	<ul style="list-style-type: none"> • Goal: emphasises the need for balance between human development objectives, justice, and ecological sustainability • Type of innovation: social • Actors: everyone with a focus on the marginalised and the poor • Systems: complex systems • Focus on the power and politics of institutional change • Different people experience things differently, which should be taken into account • There are many different ways to achieve their goal • Transformations towards sustainability should also lead to more justice and the reduction of poverty
Systemic transformation	<ul style="list-style-type: none"> • Transformative Adaptation (Patterson et al., 2017; Blythe et al., 2018) • Transformational Adaptation 1 (Feola, 2015) • Transformational Adaptation 2 (Feola, 2015) • Purposive Transition (Geels & Schot, 2007) • Deliberate Transformation (Feola, 2015; O'Brien, 2012) • Progressive Transformation (Feola, 2015) 	<ul style="list-style-type: none"> • Goal: “contesting change, and transforming social and political relations and paradigms to open up new possibilities for the future” (Patterson et al., 2017, p.10). • Type of innovation: technology, human behaviour, social relationships, social context • Actors: everyone • System: social, technical, environmental and political • Systemic change • Power dynamics play an essential role • Acknowledges that there will be resistance

3. Methodology

This chapter contains the methods and methodology of the research and is structured in the following way: the first subchapter is on the different types of data that were collected for the research, which are the European Green Deal and interviews. The second subchapter explains the data analysis, which begins with the literature review, followed by an introduction to coding and critical discourse analysis, and lastly an explanation of the data analysis conducted per research question.

3.1 Data Collection

European Green Deal

For this research, I focused on the European Green Deal (EGD), presented in December of 2019 in a communication from the European Commission to the European Parliament and the European Council. The European Commission has promoted the EGD as a growth strategy that will “transform the EU into a modern, resource-efficient and competitive economy” (European Commission, 2019b, p.2). It is supposed to be the most exhaustive climate policy yet, and it should lead the European Union (EU), an actor that is both a big polluter and an advocate for radical climate policy, to be a global leader. Therefore, the European Green Deal plays an enormous role in both the fight against climate change as well as the geopolitical position of the EU. The potential of the EGD to be transformative and the essential nature of its success made it important to examine its transformative change narrative critically. The EGD acknowledges the need to change the current systems and mentions transformative policies, which shows the potential for the EU to take this seriously. On the website of the European Commission, it mentions that: “The European Green Deal set the blueprint for this transformational change.” (European Commission, 2021c). At the same time, claims are made that the EGD is not as transformative as the Commission says it is (e.g. Greenpeace European Unit, 2019; Ossewaarde & Ossewaarde-Lowtoo, 2020; Eckert & Kovalevska, 2021). Furthermore, the EGD contains both the strategies the European Commission wants to implement and its reasoning and ideas behind it. This allowed for an interesting comparison to be made between what is said and what is done within one document. Also, the EGD is being promoted as something that the European Commission is very proud of, meaning it must reflect the reasoning of the EU well (European Commission, 2021b). Legitimacy is crucial to making significant changes work, such as ambitious climate action (Cashmore & Wejs, 2014). One way to achieve this legitimacy is through what Cashmore and Wejs (2014) call the normative pillar, which means that legitimacy comes from the perceived “appropriateness of certain societal norms” (p.205). Climate change is a political debate, and therefore the underlying norms should be well explained for legitimacy to be achieved (Cashmore & Wejs, 2014). Therefore I assumed the EGD to contain clear justifications for its decisions and any gaps that might be present. Because the EGD is the most exhaustive climate policy yet, is part of the transformative change debate, can be used for analysing both discourse and strategies, and should contain justifications for their actions, it is the best candidate for comparing transformative change discourses in the EGD to how transformative the strategies in the EGD genuinely are.

Two documents are related to the EGD: the Climate Law and ‘Fit for 55’; these documents are both based on the goals of the EGD. I focused on the European Green Deal because, as mentioned earlier, it is the most complete and ambitious climate policy by the EU to have come out. The Climate Law and ‘Fit for 55’ were subsequently released. The Climate Law puts the goals set in the EGD into legislation to make it binding. The ‘Fit for 55’ package includes all the initiatives that have to be taken to reach the goals of the EGD. The EGD is the foundational piece of the three, the other two are based on the content of the EGD. This, and time constraints, is why I only focused on the EGD, as the other two documents only reflected the established content of the EGD and did not add any other goals. Therefore, I decided to focus only on the EGD as, to me, the other documents would not lead to very differing results.

Interviews

To gain deeper insight into the reasoning behind how transformative change is represented, performed and justified, I held semi-structured interviews to supplement the data. A semi-structured interview involves a list of predetermined questions, but they do not need to all be asked (Bernard, 2017). Instead, a more open structure is followed, allowing for discussion to arise specific to each interviewee (Bernard, 2017). A semi-structured approach was taken because the same type of information was needed from all interviewees, namely, their views on transformative change in the EGD. However, it was helpful to ask particular questions to allow them to elaborate on their answers. Furthermore, the interviewees were of different backgrounds and with different specialisations, so I could dive deeper into their specialisations and better understand their role and position within the EU by adjusting the interviews slightly. Accordingly, semi-structured interviewing allowed for a common direction at first but more a tailored direction as the interview went on. The questions were divided into different topics to make the interview more structured, and the interview guide can be found in Appendix I. There was some trial and error when it came to the question, and I changed many of them as I noticed that not everyone knew or had strong opinions on transformative change. Therefore I switched the focus and tried to find out their views on, and justifications for, the views and strategies taken in the EGD. After that, if the interviewee knew anything about transformative change, I asked them how the EU uses it in the EGD. If they were not very familiar with the concept, I continued to ask questions focused on the choices made within the EGD.

To select the interviewees, purposive sampling was used because the interviewees needed to have specific characteristics to be the best fit. Purposive sampling is where interviewees are selected on specific characteristics made up by the researcher (Bernard, 2017). The purpose of the interviewees was to provide knowledge on how they perceived the use of transformative change in the EGD. Therefore it was necessary to do purposive sampling. The criteria used for purposive sampling are:

- Work at the European Commission, or European Parliament (EP)
- Work/have worked on the EGD, Climate Law, or Fit for 55
- Work/have worked in a commission/Directorate General (DG) that the EGD influences
- Work/have worked in the EP on something relating to the EGD

I chose these specific characteristics because I wanted the interviewees to be involved in the EGD or at least their work to be influenced by the EGD. This way, they were familiar with the document and the reasoning behind the choices, making them more likely to have justifications

in line with what the Commission thought. Due to the EGD influencing most of the policy fields in the EU, it was not difficult to find DGs that the EGD influenced. I also made a point to interview people from as many different DGs as possible to achieve a broad representation of the views within the EGD. In addition, when people declined, I asked for any recommendations for people to speak to, to do some snowballing and find more interviewees. Snowballing is an approach to finding interviewees by asking others if they know someone they think would be a fit for the interview, then when you interview that recommended person, you can ask them the same question (Bernard, 2017). Sometimes people recommended others without me asking, mainly because they saw them as more fitting than themselves.

Once I had established whom I would contact, I wrote a template for the e-mails, which was personalised depending on their specific function. The template can be found in Appendix II. To keep track of everything, I made an Excel form containing the names and e-mail addresses of the persons I contacted and when I contacted them and whether or not they responded. I sent an e-mail to 41 people, of whom eleven agreed to do an interview. Unfortunately, one person was only available after March, which did not fit my schedule. Another interview was not recorded properly. After I found out, I wrote down as much as I could remember, but since this is not fitting for coding or CDA, I did not use it for my data analysis. Therefore, there are nine interviews that I used for the data analysis. Appendix III contains some information on the interviewee, but due to privacy reasons, the information is limited.

The interviews were held from December 1st 2021, until January 31st 2022, either by phone, Microsoft Teams, or Webex. The interviews were recorded using the voice recorder on my phone and laptop with the interviewee's permission, and all interviewees gave permission. The interviewees were anonymised, and any information in the transcripts that could provide their identity was removed. I also sent the final thesis to them to check and see if I fairly represented their views. Any comments were handled appropriately.

The interviews were transcribed using the 'transcribe' tool available in the web version of Word. The tool was only supporting, and I still went over the text to check them. I used the transcription type called 'intelligent verbatim transcription', where I only removed or edited parts of the text to improve readability, for example, when the interviewee repeated themselves many times or used words and phrases such as 'you know', 'uhm', 'yeah' (Summa Linguae, 2021).

3.2 Data analysis

Literature Review

In order to examine how the EGD represents and performs transformative change, I first needed to explore the many ways the concept can be represented. To do so, I investigated different interpretations of transformative change by reviewing the literature on transformative change. As explained below, I used the literature review to identify different discourses to help guide my critical discourse analysis (CDA) of the EGD and the interview transcripts. The literature review provided an overview of the different discourses around transformative change, found in [subchapter 2.5](#). It was crucial to be aware of how different actors can frame and enact transformative change in diverse ways, both in the definition and the proposed strategies. I started

the literature review by making a list of search terms and keywords to guide the literature review. These were mainly variations of ‘transformative (change)’, ‘transformation’, and ‘transition’ and sometimes combined with ‘climate change’, ‘environment’, or ‘the European Union’ to make it more specific. During my literature review, I focused not only on ‘transformative change’ but also on transitions and transformations because, to many scholars, these have similar definitions and provided a more complete overview of the different conceptualisations of transformative change. Each article was evaluated following my inclusion and exclusion criteria in Table 2. I choose the 2000 cut-off date because transformative change is a relatively new concept and thus has seen many discourses over the past two decades. Since transformative change is about newer, radical ideas to change the system, I focused my effort on the more recent literature, so from 2000 on. Furthermore, when searching for “transformative change” or “transformational change” on Scopus, most articles are written after 2000, with only one or two per year before 2000. This did mean that I might have missed some foundational research, but if it was still relevant, I should have seen it cited in the current articles. During this process, I made an annotated bibliography with a summary of the main points made in each article. Due to time constraints, this literature review only provides a rough overview of the different discourses. I started by looking at review papers I found on Google Scholar or Scopus that already summarised different conceptualisations around transformative change to get a rough sense of the different lenses and strategies around transformative change and build up from there on. I then wrote down the characteristics of each conceptualisation and matched and merged some of the concepts that had the same or very similar characteristics. I eliminated some of the concepts and articles because they either were not detailed enough in their conceptualisation or the field of research was too different from climate policy to make it comparable. From the remaining articles, I made a preliminary framework, to which I added other conceptualisations found in the literature. I ended up with seven different discourses. The main articles I used were Feola (2015), Patterson et al. (2017), and Schot and Steinmueller (2018).

Table 2

Inclusion and exclusion criteria for the literature review on transformative change and its drivers

Inclusion criteria	Exclusion criteria
<ul style="list-style-type: none"> • Published in 2000 or later • Transformative change and its drivers as the primary subject • Focused on climate sciences or environmental sciences 	<ul style="list-style-type: none"> • Published before 2000 • Transformative change and its drivers as the secondary subject • Focused on a specific field that is not or barely affected by the EGD

Critical Discourse Analysis

The primary approach to answering the main research question is a critical discourse analysis used in all three research questions. Therefore, to begin with, I will explain the general methods of a CDA. “Critical discourse analysis (CDA) is a qualitative analytical approach for critically describing, interpreting, and explaining how discourses construct, maintain, and legitimise social inequalities” (Mullet, 2018). The analytical framework presented in [subchapter 2.5](#) guided the CDA I conducted. As explained in [subchapter 2.4](#), CDA highlights inequality and power imbalances and makes those more transparent (Mullet, 2018). CDA is about exposing a text’s

underlying values and power structures to understand better how power balances are maintained and legitimised (Mullet, 2018). For example, climate change is often seen as something that causes injustices and is accompanied by feelings of powerlessness (Clayton & Karazsia, 2020). This makes climate change and any document related to tackling climate change, in this case, the EGD, an interesting subject for a CDA. Furthermore, many researchers have used CDA to investigate topics of climate change (e.g. Calliari, 2016; Fernández-Vázquez & Sanchó-Rodríguez, 2020; Eckert & Kovalevska, 2021). More specifically, for the EGD, a CDA can show how transformative change is talked about and acted upon. Using the underlying values can help explain *why* it is talked about and acted upon in a certain way. Furthermore, a CDA can highlight how language in the EGD is used to maintain and legitimise its use of transformative change (Mullet, 2018).

CDA does not have one specific approach. Instead, it depends on the research goals (Blommaert & Bulcaen, 2000; Mullet, 2018). Therefore, to guide my research, I based my approach on the roadmap provided by Mullet (2018). Mullet (2018) provides seven steps: (1) select the discourse; (2) locate and prepare data sources; (3) explore the background of each text; (4) code texts and identify overarching themes; (5) analyse the external relations in texts; (6) analyse the internal relations in the texts; (7) interpret the data. To start, I had to know what discourses I would be looking at and where I would get my data from. For this research, I looked at the discourses around transformative change. The literature review provided an overview of those discourses. In addition, the sources for my data were the EGD and the interviews. With every discourse analysis, it is essential to know the context of the discourse. The context determines the meaning of the language, as explained in [subchapter 2.4](#). So the first step was to look into the context of the documents (i.e. the EGD and interview transcripts) themselves. Some context around climate change is provided in [subchapter 2.1](#). The context of when, why, and by whom the text is created can be used to analyse the text and better understand the discourses and where they come from. Therefore, I looked into the history of the EU and its climate policy by reading articles, books and listening to podcasts. Considering my interest in the EU and climate policy, I have been learning about the context for a few years, which helped put the EGD into the bigger picture of the EU narrative. In short, the context I held in mind when conducting the CDA was that the EU is often perceived as technocratic (Sánchez-Cuenca, 2017). It started as an economic community (European Union, n.d.). The current European Commission has geopolitics and climate change on the top of its agenda (von der Leyen, 2019). Other crucial concepts to CDA are power, hegemony, and structuration (Mullet, 2018). These concepts were explained in [subchapter 2.4](#). I focused mainly on power, analysing how power was used to include and exclude specific strategies and which power relations were perpetuated through those choices. The concept of discursive hegemony was applied to see what the hegemonic discourse was of the European Commission and thus what they saw as universal truths and reality. Structuration was used to see how the European Commission (in the EGD) and the EU employees (in the interviews) look at the world and issues at hand based on a specific discourse. After the data analysis, I put the results into the larger context of different debates and geopolitical issues presented in the [discussion chapter](#). The next step was to code the texts and look for overarching themes around the use of transformative change in the EGD and the justifications made for that use, which will be elaborated upon in the following section. Step four of Mullet's (2018) roadmap will be explained in the following section

Coding

Once I had some background knowledge, I started coding the text. Before coding, I read through the texts to get an initial idea and then divided the texts of the interview transcripts into segments. Whenever a new issue was raised, I made a new segment to help guide my coding (Saldaña, 2009). Additionally, I made a document containing my research questions, objectives, and a summary of my theoretical framework that I printed and had laid out on my desk during coding to make sure I was only coding what was relevant for my thesis (Saldaña, 2009). My coding was both deductive, establishing the codes before going through the document, and inductive, establishing codes whilst going through the document (Saldaña, 2009). The deductive code came from the literature review and the different discourses established in the review. These codes were divided into seven categories that reflect the difference between all the discourses the best, based on the main defining characteristics found in the literature review (see [subchapter 2.5](#)), which are also used in Table 1. This allowed for a match between the EGD and the results from the literature review. Subsequently, this would make the analysis of where the discourse of the EGD fit in with the discourse of the literature review easier and more accurate as the categories were the same between them. The categories were:

- Economic policy
- Social policy
- System
 - Economic
 - Environmental
 - Social
 - Socio-economic
 - Technical
- Type of innovation
 - Social
 - Technical

The inductive code was derived from the EGD and the interview transcripts. Similar to what Hennink et al. (2020) recommended, to first code one-third of your data, I coded the EGD and three interview transcripts. This gave me most of my inductive codes, but more were added as I went along with the other interview transcripts. During the coding, I used structural coding, where the codes given are phrases based on the research question (Saldaña, 2009). According to Namey et al. (2008, p.141), structural coding “acts as a labelling and indexing device, allowing researchers to quickly access data relevant to a particular analysis from a larger data set”. This fit my research best as I used the same texts to answer different questions, namely the representation and strategies around transformative change and justifications for the choices made. Structuring my code based on the different research questions made it easier to access the correct codes for the right question. Furthermore, Saldaña (2009) argues that structural coding fits well with semi-structured interviews, which is part of my data set. Starting with three of the interview transcripts allows the establishment of codes and patterns before going through all of the other transcripts (Hennink et al., 2009). This made the analysis more structured and pointed, as I had already established some of the more important codes beforehand. I used the program ATLAS.ti to assist me in my coding process. I chose the three interview

transcripts to cover different points of view; the first interviewee was from the Left group of the European Parliament. The second interviewee works in the cabinet of Frans Timmermans, and the third works at the Directorate General Agriculture and Rural Development.

Once I had established sufficient codes, following the advice of Friese (2012) to stay between 120 and 300 codes, I went over all nine interview transcripts and the EGD multiple times and ended up with 504 codes, at that point I felt like the data was saturated (Hennink et al., 2020). I went through all the codes and validated them based on the criteria established by Hennink et al. (2020). These were whether the code was relevant to the research topic, represented the issue well, recognised in data, repeated in data, and raised by participants. I also merged very similar codes, leaving 359 codes. To ensure I had captured all the important parts of the texts, I used the search tool in ATLAS.ti for specific words, including economy, environment, growth, practice, exponential, and industry. After that, I made categories of the different discourses around transformative change present in the texts. These categories were based on the different characteristics of the discourses from my literature review (see [subchapter 2.5](#)). They were used for the first and second research questions on how transformative change was represented and performed. For the third research question, I coded and categorised different justifications for why choices were made to see how people working at the EU legitimise the choices made in the EGD. I made the categories of justifications by printing and cutting out all the codes relevant to how the EU justifies transformative change in the EGD, I then grouped similar codes. Printing the codes and having them in front of me on the table made it easier to switch around codes and find the best fit for each code. With the revised themes, I again went over the EGD and the interview transcript to be able to dive deeper into the analysis. During the coding, I made memos in a journal to capture the things that stand out to me and why, as well as my thoughts and questions regarding the texts as was recommended by Saldaña (2009). I reflected on the process, my choices, and any emerging patterns, themes, categories, or concepts (Saldaña, 2009). These insights were used during the data analysis and the [discussion](#) section of this research. Steps five, six, and seven of the roadmap provided by Mullet (2018) will be done in the discussion, where I look at the results in relation to other research (step 5), in relation to each other (step 6), and interpret what the results mean (step 7).

First Research Question

To research how the EGD represent and performs transformative change, I conducted a critical discourse analysis (CDA) based on the information from my literature review and the EGD. For this research, the representation and performance of transformative change were understood as the words and statements within the EGD that were not necessarily about putting something into practice but rather showed how the European Commission looked at things. First, I grouped the codes from the EGD. The code groups were based on the seven discourses of my analytical framework that were already established from the literature review (see [subchapter 2.5](#)). This approach was taken to show the full scope of transformative change discourses. If I had matched it with one of the discourses, that would have excluded parts of the EGD and interview transcripts that are present but do not fit with that specific one. Therefore all discourses were discussed. I looked at how they did and did not match up with the EGD. This provided the themes present in the EGD around transformative change and the strategies to pursue it. I investigated how the EGD represented transformative change, what ideas were

there to ‘transform the EU’, what was seen as ‘transformative policies’, and the thoughts behind those ideas. To see how transformative change is performed in the EGD, I looked at what approaches were taken in the text to achieve the representation of transformative change. How is transformative change framed to promote particular strategies and not others? What words and phrases are used to further these choices? For this research question, my focus was on the EGD, however, I also used the interview transcripts to triangulate my findings as well as add more explanation to the findings in the EGD.

Second Research Question

The second research question is about how the representation of transformative change translates into the strategies in the EGD. What is meant by representation is explained in the previous section. In the context of this research, strategies were seen as anything that could be put into action, it did not need many details, but an idea of the solution should be there. For example, a statement like ‘energy poverty needs to be combatted’ would fit in better with the representation of transformative change. On the contrary, ‘energy poverty needs to be combatted through state-financed insulating of homes’ would be considered a strategy. To research this translation from discourse to strategies, I first needed to know the proposed strategies in the EGD. So I began by going through the EGD to make a broad overview of the proposed strategies. I conducted a CDA of the complete document with the main focus on chapters 2, 3, and 4 of the EGD. These chapters contain all the main goals and strategies in the EGD. Then, I divided the strategies based on the different subchapters of the EGD. This analysis provided the same discourses between the first and second research questions, making them comparable. The outcomes of the first and second research questions were compared to see which discourses were most prevalent in words and most prevalent in the actions. This was done to analyse how the discourse of transformative change is translated into proposed strategies. If the same discourses were most prevalent in words and action, then there are little to no mismatches between words and actions. However, if one discourse was very prevalent in words but not in actions, this could show a mismatch.

Third Research Question

After establishing some gaps between the words and the actions, I started looking at the justifications present in the interviews and the EGD. The research focused on how any gaps were legitimised through the EGD. This analysis was based on the CDA of the EGD and the interview transcripts. The interviews were crucial to getting the best understanding of how legitimacy is constructed. The interviews provided the norms behind decisions and how people within the EU thought about the discourses and strategies around transformative change in more detail. What constitutes legitimacy is constructed through political discourses (Connelly, 2011; Turnhout et al., 2015). You can figure out how legitimacy is constructed by looking at what discourses it is trying to resonate with (Turnhout et al., 2015). The discourse it is trying to resonate with can be figured out by looking at specific norms and values they follow (Connelly, 2011; Cashmore & Wejs, 2014; Turnhout et al., 2015; Dieudé, 2021). The political norms decide what is deemed appropriate and what is not. Thus, to gain legitimacy, policy should follow those norms (Turnhout et al., 2015). So by figuring out what norms, values, and ideologies underlie the justifications in the EGD and the interviews, I deduced how legitimacy is

constructed. To do this, I coded the interview transcripts and used the already coded EGD to see what justification discourses were present around the choices made in the EGD. After the main justifications were established, I dove deeper into those discourses to see what norms and values were underlying the discourses that formed the basis for the justification and legitimisation of certain decisions. Finally, the CDA was used to uncover any underlying values and power dynamics that might legitimise any missing elements to achieving their idea of transformative change through their strategies.

4. Results

In this chapter, the results from the critical discourse analysis of the European Green Deal (EGD) and the interviews are presented and divided into the three research questions. First, the way transformative change is represented in the EGD is discussed. This [subchapter \(4.1\)](#) is guided by the seven different discourses found in the literature review ([subchapter 2.5](#)) and how well the EGD fits within these discourses. The following [subchapter \(4.2\)](#) has a similar structure, guided by the seven discourses, through which the findings are presented on how the proposed strategies in the EGD fit within these discourses. Which characteristics of each transformative change discourse are present in the EGD is visualised in Table 3 using the same characteristics as in the Table 1 for the literature review. Finally, in [subchapter 4.3](#), the justifications of the choices made within the EGD are presented, which are divided into six discourses found within the interview transcripts and the EGD. The quotes from the interviewees do not reflect the views of the European Union (EU) institutions but are personal statements made by the individual interviewee. Important to note is that this analysis was conducted with the approach that moving away from the current systems is needed to fight climate change. This approach aligns with transformative change, as explained in the introduction ([chapter 1](#)) and part of the theoretical framework ([subchapter 2.2](#)). Although the findings are written from the view of each discourse, the critical analysis is conducted from this specific approach. Therefore, this analysis and the findings have a normative component to them.

4.1 The Representation and Performance of Transformative Change

The literature review provided seven different discourses around the concept of transformative change. Each discourse will be discussed and how the EGD fits in with each discourse from the view of that discourse, supported by quotations from the EGD and the interview transcripts. The results are visualised in Table 3.

Research & Development

The first discourse discussed is the *research and development* (R&D) discourse. A few reasons exist why the EGD fits within the discourse of *research and development*. First, the main idea of *R&D* is to achieve growth and prosperity through technology and research. The focus in the EGD is clearly on growth as it is often framed as a growth strategy. Furthermore, in the *R&D* discourse, this growth should lead to prosperity, as reflected in the second paragraph of the EGD:

“It [the EGD] is a new growth strategy that aims to transform the EU into a fair and prosperous society with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use.” (European Commission, 2019b, p.2)

The ‘new growth strategy’ frame comes back frequently and seems to cut to the EGD's core. The wording is quite ambiguous, allowing for different interpretations of what ‘fair’ and ‘prosperous’ mean and what tools will be used to achieve these goals. There does seem to be a focus on technology and innovation, e.g. decarbonising, to keep growing. The common frame of economic growth leading to prosperity is perpetuated in this quote and throughout the EGD,

becoming a hegemonic discourse, reducing the space for other solutions that might not be focused on economic growth.

Another characteristic of the *R&D* discourse is that it sees technology as the magic bullet and technological and research breakthroughs as the goal of innovation and research. This idea is present both in the EGD as well as in the interviews. The presence of this idea can, for example, be seen in this passage from the EGD and a quote from an interview:

“EU industry needs ‘climate and resource frontrunners’ to develop the first commercial applications of breakthrough technologies in key industrial sectors by 2030. Priority areas include clean hydrogen, fuel cells and other alternative fuels, energy storage, and carbon capture, storage and utilisation ” (European Commission, 2019b, p.8)

and

“then the whole discussion is where the research and innovation comes into that and we believe that research and innovation is a very, very important part of the whole equation.” (Interviewee 4)

In the first quote, the fuel and energy industries are the key actors in power, and their purpose is to develop breakthrough technologies that will play an essential role in achieving the targets set in the EGD. These new technologies have not been developed yet, but the EU sees them as crucial for reaching its goals. The second quote shows how essential research and innovation are to the EU for reaching the goals set in the EGD. There also does not seem to be much regard for the consequences of technologies or how negative consequences could be prevented. Furthermore, throughout the EGD, the focus seems to lie more on creating new technologies to solve our issues rather than looking at existing solutions. For example, when it comes to pesticides, the Commission argues that:

“The EU needs to develop innovative ways to protect harvests from pests and diseases and to consider the potential role of new innovative techniques to improve the sustainability of the food system while ensuring that they are safe.” (European Commission, 2019b, p.12)

The frame of constant research and development as the solution excludes existing solutions from the list of possibilities. For example, approaches such as crop rotation, permaculture, or biological pest control with insects are not mentioned in the EGD, despite existing and being used for decades, if not centuries, or millennia. The frame of solutions still needing to be invented moves the power towards the R&D companies in charge of creating innovations instead of shifting the power to farmers and specialists who have knowledge of permaculture and other possible solutions. Instead, the power is vested in R&D companies and businesses that often have held this power and shaped our current world. Therefore, this frame could allow current businesses to maintain their power and thus their interests.

One aspect of the EGD that does not align with the *R&D* discourse is that the European Commission wants the private sector to help finance the strategies. Within the *R&D* discourse, the private sector is seen as the one executing the strategies and the state (in this case, the EU) as the financier. However, in the EGD, it is mentioned that:

“The private sector will be key to financing the green transition.” (European Commission, 2019b, p. 16)

This quote shows a different distribution of roles among actors compared to the *R&D* discourse. Another difference between the *R&D* discourse and the EGD is that the EGD has a social focus on the impacts of climate change and some innovations, such as loss of jobs or high energy prices, as illustrated in this quote:

“The need for a socially just transition must also be reflected in policies at EU and national level” (European Commission, 2019b, p.16).

The frame of a just transition and what this means will be elaborated upon in the coming discourses (e.g. socio-technical transition). Overall there is some overlap between the EGD and this discourse, mainly regarding the focus on growth and seeking the solutions in technological innovations and breakthroughs. However, the social components of the EGD shift the representation of transformative change away from the *research & development* discourse.

Innovation Systems

Moving on to the *innovation systems* discourse, this discourse sees innovation as the way to change the current system towards sustainability rather than transitioning to a new system. Therefore, according to the *innovation systems* discourse, the goal of any policy should be to facilitate this innovation. The approach of *innovation systems* to change but stay in the current system is illustrated in the EGD’s intention to maintain industries:

“Energy-intensive industries, such as steel, chemicals and cement, are indispensable to Europe’s economy, as they supply several key value chains.” (European Commission, 2019b, p.7)

and

“We want climate protection, we want climate neutrality, but we would like to do that together with the industry, we would like to be global leaders in clean technologies” (Interviewee 8)

As shown in these quotes, the idea behind reaching the EGD’s goals is to do it within the industrial system. European Commission The change is within the system, making it more sustainable and climate neutral. Especially the word ‘indispensable’ paints a picture that there are few other solutions to this issue. Discourse structuration occurs here because energy-intensive industries as indispensable in the dominant way the European Commission conceptualises the world. This is an example of powerful institutions deciding what is included and excluded. However, ideas about energy-extensive industries seem to be excluded from the EU discourse through the use of the word ‘indispensable’, creating a hegemonic discourse. This allows the EU to move within the system instead of away from it, in line with the *innovation systems* discourse.

Another important aspect of the *innovation systems* discourse is the maintenance of competitiveness. The idea is that there can be change within a system as long as competitiveness is maintained, otherwise, the targets will not be reached. This quote reflects that quite well within the EGD:

“The EU will continue to lead international efforts and wants to build alliances with the like-minded. It also recognises the need to maintain its security of supply and competitiveness even when others are unwilling to act.” (European Commission, 2019b, p.20)

The EU promises to continue to be a frontrunner, but at the same time, it acknowledges that there is still a need to maintain competitiveness. Like the previous section, the issue is framed as a need, something that has to happen. By framing competitiveness as a need, it could allow the EU the option to move off track from its targets to maintain competitiveness.

When it comes to actors, the *innovation systems* discourse is about the involvement of the so-called triple helix (government, industry, universities). The interaction between these is seen as crucial for innovation. Although they are not mentioned often altogether in the EGD, there are some examples:

“The knowledge and innovation communities run by the European Institute of Innovation and Technology will continue to promote collaboration among higher education institutions, research organisations and companies on climate change, sustainable energy, food for the future, and smart, environmentally-friendly and integrated urban transport.” (European Commission, 2019b, p.18)

The European Institute of Innovation and Technology (EIT) is an EU institution fully funded by the EU through the Horizon Europe programme, therefore representing the state in the triple helix. The EIT collaborates with research organisations and companies to reach the targets of the EGD, completing the triple helix. The triple helix incorporates multiple ideas from different institutions, allowing for a more accurate description of the issues at hand as multiple views are considered. However, it could exclude citizens because the experts should do the work, not laypeople.

According to the *innovation systems* discourse, innovations are the solution to all issues. Therefore, it is essential to enable as much innovation to happen. One of the main obstacles to innovation is money, as it can be costly. By creating enabling frameworks to get more investments, innovations are also enabled. An example of this in the EGD is improving the investment climate:

“The Commission will also support the commitment made by national public financial resources to improve the investment climate and achieve contributions from the private sector.” (European Commission, 2019b, p.22)

Enabling frameworks for innovations is an essential component of *innovation systems*, and a better investment climate will lead to more money, enabling more innovations.

Similarly to the mismatch between the EGD and the *R&D* discourse, the *innovation systems* discourse mismatches because there is a social focus in the EGD that is not present in the *innovation systems* discourse, for example, in this quote:

“The Horizon Europe programme will also involve local communities in working towards a more sustainable future, in initiatives that seek to combine societal pull and technology push.” (European Commission, 2019b, p.18)

This shows a focus on technology, which matches with the *innovation systems* discourse, however, involving local communities and a societal pull are not present in the *innovation systems* discourse as it is too social. Therefore, parts of the EGD do not match the *innovation systems* discourse.

Overall, the innovation system discourse fits with the EGD; there are plenty of innovations and frameworks to support that innovation. The social component is a bit more present in the *innovation systems* discourse compared to *R&D* since this discourse does take into account the adverse effects of innovation. However, this still does not fully match the social component of the EGD.

Socio-technical Transition

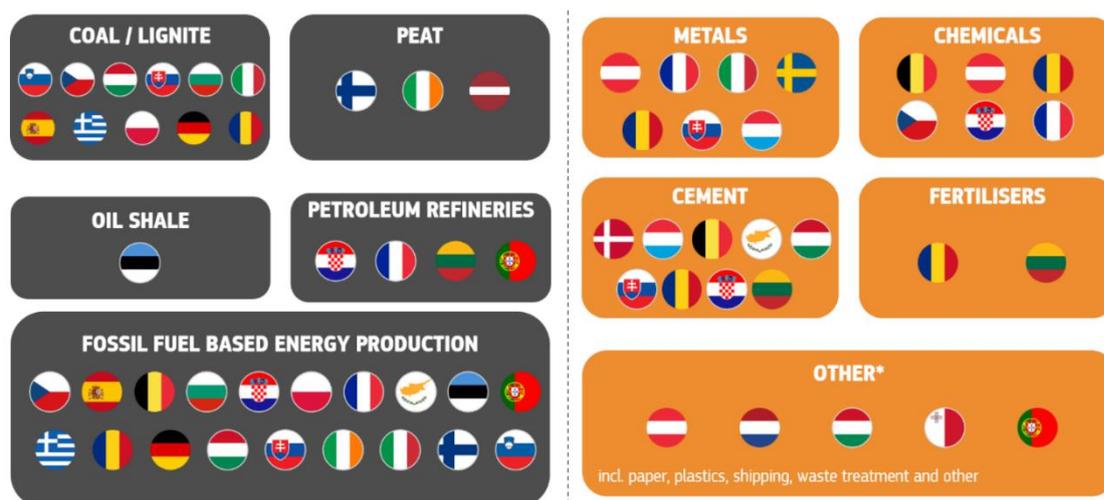
Compared to *research & development* and *innovation systems* discourses, what sets *socio-technical transitions* (StT) apart is the focus on both the social and technical systems and innovations. In the *StT*, transformative change is not just about more technologies but also making sure the social aspects are considered. When it comes to the EGD, the Just Transition Mechanism that underlies the EGD reflects this social system, where the social impacts of any of the strategies are taken into account, with a focus on the most affected areas:

“The Just Transition Mechanism will focus on the regions and sectors that are most affected by the transition” (European Commission, 2019b, p.16)

One of the main areas of focus seems to be regions and sectors where the fossil fuel and metal industries are essential to the economy. However, through the goal of climate neutrality, these industries will disappear, and so will income and employment (an overview can be seen in Figure 1). Therefore, extra attention will be given to those areas specific to each region.

Figure 1

Declining (in grey) and transforming sectors (in orange) identified in the Annexes D of the European Semester country reports of February 2020



Note. From: European Commission. (2021d, September 23). *Commission Staff Working Document on the Territorial Just Transition Plans*. SDW(2021) 275 final.

One other example of a social focus in the EGD is how it plans to incorporate the Sustainable Development Goals of the United Nations:

“The [European] Green Deal is an integral part of this Commission’s strategy to implement the United Nation’s 2030 Agenda and the sustainable development goals (...) to integrate the United Nations’ sustainable development goals, to put sustainability

and the well-being of citizens at the centre of economic policy, and the sustainable development goals at the heart of the EU's policymaking and action." (European Commission, 2019b, p.3)

This quote provides an excellent example of something that could solely be technical, namely, economic policy. However, the sustainable development goals (SDGs) integration into the economic policy also considers the social effects of this transformation, making the EGD more social overall. Furthermore, incorporating the SDGs can lead to the inclusion of many different ideas and concerns since it focuses on issues like gender inequality, quality education, peace and justice, and climate action (United Nations Development Programme, n.d.). These goals can help empower more people and give them a voice, shifting power dynamics from the large institutions more toward civil society.

Where the previous two discourses are more focused on change within a system, *StT* is more focused on the change between systems. Examples of the previous two discourses have shown that the idea of change within systems is present in the EGD. However, the idea of transforming systems into other systems is also present in the EGD, which is more in line with *socio-technical transitions*:

"The EU has the collective ability to transform its economy and society to put it on a more sustainable path." (European Commission, 2019b, p.2)

The EGD acknowledges that the EU economy and society should become more sustainable. The EU has admitted that the current system is not very sustainable. For example:

"Between 1990 and 2018, it reduced greenhouse gas emissions by 23%, while the economy grew by 61%. However, current policies will only reduce greenhouse gas emissions by 60% by 2050." (European Commission, 2019b, p.4)

Therefore, the EU acknowledges that it should change to a more sustainable system, indicating a shift between systems. However, based on the first quote, it is hard to know what this new system will be. When has one system transformed into another? The ambiguity of when a system has transformed allows for different solutions to be included in the agenda, each following a different idea of system transformation. However, the idea of changing from one system to another is limited by the focus on the economy in the EGD, which could exclude visions that want to move entirely away from the current economic system. This exclusion can make it easier for the current interests to be maintained through the preservations of (parts of) the system.

Something that is also characteristic of *socio-technical transitions* that is present in the EGD is the focus on economic policy. The EGD has its fair share of economic focus; the green economy, blue economy, circular economy, and bio-economy are all mentioned in the EGD:

"Sustainable re- and afforestation and the restoration of degraded forests can increase absorption of CO₂ while improving the resilience of forests and promoting the circular bio-economy" (European Commission, 2019b, p.13)

and

"But also encouraging the bio-economy the farm is producing out of biomass." (Interviewee 6)

This quote is an example of something common within the EGD, where environmental protection is combined with the economy. As the issue lies within the economy, it can be argued that the solution lies there as well; this seems to be the argument of the EGD. With its repeated use of transformations, these different types of economies are seen as different economic systems, transforming the old ‘normal’ economy into a ‘green’ or ‘circular’ economy. There is never any question about whether resource use and environmental protection can work together, creating a discursive hegemony around the need for economy. It is taken at face value that it can be decoupled, whilst not everyone agrees, this excludes ideas that go against this by framing it as the most reasonable solution.

The EGD reflects ideas of both technical and social innovations as well as a strong focus on the economy. These are all essential components of the *socio-technical transition* discourse. Consequently, there is much overlap between the *socio-technical transition* discourse and how the EU sees transformative change.

Transformative Social Practice

Another way of combining social and technical components is displayed in the *transformative social practice* (TSP) discourse. When it comes to TSP, the main idea is to change daily life practices towards sustainable social practices. Although not very present, some aspects of the EGD do follow the discourse of TSP. For example, removing unsustainable practices and making more room for new sustainable social practices to be created:

“Achieving sustainable transport means putting users first and providing them with more affordable, accessible, healthier and cleaner alternatives to their current mobility habits.” (European Commission, 2019b, p.10)

Making it easier for consumers to take sustainable transport might start a new social practice. As sustainable transport becomes the new norm and easily accessible to all, people will start to adopt this new routine without giving it too much thought, creating sustainable social practices. Power relations could shift towards civil society by creating new social practices that give them more opportunities (e.g. taking the bus, train, bike, or car), therefore giving more agency over their actions.

The TSP discourse only sees value in technology when it is integrated into society. Although this is not explicitly mentioned in the EGD, one of the interviewees did bring it up, so some people within the EU have this personal point of view:

“I think with the big power of social innovation, we can organize ourselves around existing technologies, and this is the social innovation. You know the technologies are not innovation per se; innovation is the combination of technologies to a certain end.”
(Interviewee 4)

Technologies are still at the centre of this, but it is acknowledged that technologies are more effective when included in social innovation, which is also an essential point in TSP. This combination of social and technical innovation could help innovation be more inclusive of civil society and its issues and concerns and give them more power n.

Despite these examples, the main idea of the EGD does not fit with the *TSP* discourse because the ideas that the EGD focuses on are not the ideas that the *TSP* discourse sees as a solution, such as technical innovation without social integration and education:

“The Commission will prepare a European competence framework to help develop and assess knowledge, skills and attitudes on climate change and sustainable development.” (European Commission, 2019b, p.19)

Things such as education and technological innovation can help with introducing new practices. However, as explained in [subchapter 2.5](#), *TSP* does not see the solution in these approaches. Although there is a bit of overlap, there is not much of a match between the *transformative social practice* discourse and the representation of transformative change in the EGD. The main ideas of the EGD do not line up with the essential components of *TSP*; there is too much of a focus on education and technology that is not integrated into society.

Social-ecological Transition

Continuing to the next discourse, we have *social-ecological transitions*. One of the central discourses of *social-ecological transitions* (*SeT*) is that we change how we value and view nature. According to *SeT* scholars, a better relationship with nature can build more resilience to climate change. This idea is reflected in the EGD in the first paragraph of the subchapter ‘Designing a set of deeply transformative policies’:

“To deliver the European Green Deal, there is a need to rethink policies for clean energy supply. [...] To achieve these aims, it is essential to increase the value given to protecting and restoring natural ecosystems, to the sustainable use of resources and to improving human health.” (European Commission, 2019b, p.4)

It implies that we cannot achieve the goals without changing how we value nature, which reflects the idea of *SeT*. This quote is precisely what *SeT* stands for; changing our relationship with nature to save the environment. Caring more about ecosystems is good for the environment and the community living in and caring for those ecosystems for centuries. Practices of (indigenous) communities can be included in this new relationship with nature, creating a more plural worldview of nature and empowering those (often marginalised) communities, shifting the power towards the marginalised.

Another characteristic of *SeT* is that it puts ecology and environmental protection in the foreground. This idea is reflected in the EGD and one of the interviews:

“All EU policies should contribute to preserving and restoring Europe’s natural capital.” (European Commission, 2019b, p.4)

and

“We have one planet, but we are squeezing it already way beyond what is sustainable. [...] So by 2050, if we continue on the current trajectory, we will consume resources, erode biodiversity and produce emissions like we had three planets.”(Interviewee 5)

These quotes reflect the need for ecosystems to be conserved and respected, which aligns with the *SeT* discourse. However, there is a caveat: the use of ‘natural capital’ in the first quote. This concept is based on the capitalistic market, where everything is a resource and has monetary value. Therefore, it neglects the intrinsic value of the ecosystem and perpetuates the current system and power relations of a capitalist society and the associated hegemonic discourse.

Nevertheless, there is potential for the EGD to make nature conservation a top priority which might bring nature conservation more to the forefront of the public agenda. Through this agenda-setting, the perceived value of nature conservation can be increased, which can then shift the public perception towards a more conservatory relationship with nature, which is a step in the right direction in the eyes of the *SeT* discourse.

The concept of an ecological transition is mentioned multiple times within the EGD, mainly in combination with how a strategy can help achieve this ecological transition. For example, when it comes to the digital transformation:

“The Commission will support work to unlock the full benefits of the digital transformation to support the ecological transition.” (European Commission, 2019b, p.18)

What this ecological transition precisely entails is not explained in the document, but it does indicate some sort of awareness of the importance of the ecological side of the issue.

Despite these examples of the EGD fitting in with the *social-ecological transition* discourse, the EGD does not fit in completely. The main reason for this misfit is that nature is often only seen as necessary because of the tangible services it delivers for humanity, so there is no change in how we perceive our relation to nature. There are different examples within the EGD talking about protecting nature to protect ourselves, for example:

“Ecosystems provide essential services such as food, fresh water and clean air, and shelter. They mitigate natural disasters, pests and diseases and help regulate the climate.” (European Commission, 2019b, p. 13)

Here, the reason to protect nature and why we should care about nature is because of the tangible services it provides us. Of course, when following the view of the *SeT* discourse, acknowledging this is already a step in the right direction for our relationship with nature, according to the followers of the *SeT* discourse. However, framing nature as necessary because it provides us with something can undermine the parts of the natural world that do not provide (tangible) services but still need our protection (or be left alone). Additionally, the frame of the natural world as a resource has got us here in the first place, so it does not change the way we interact and see the natural world.

All in all, there is some overlap between this discourse and the EGD, but in a rather superficial manner of environmental protection instead of transforming the way we see and interact with nature, which is at the core of the *social-ecological transition* discourse.

Sustainability Pathways

Compared to the other discourses discussed in this subchapter, *sustainability pathways* is the discourse of transformative change most concerned with justice and power relations. Although this is not reflected through all of the EGD, there is one main section devoted to especially this; the ‘Just Transition Mechanism’ (JTM), which carries with it the idea that we should leave no one behind in the transformation of the EU economy and society. It is highlighted that we need to consider the most affected, both by climate change and the EGD strategies:

“The transition can only succeed if it is conducted in a fair and inclusive way. The most vulnerable are the most exposed to the harmful effects of climate change and environmental degradation.” (European Commission, 2019b, p.16)

and

“Is that as we change, let's say our system, for example, the energy prices will change and so the way you know we have to look that vulnerable households are not, for example, affected by higher energy prices” (Interviewee 1)

Within the EGD, there is a strong focus on solving the issue of energy poverty. Energy poverty is when people do not have the means to adequately warm their homes through a lack of finance or technology. It shows the conviction of the EU that this transition cannot be achieved without it being done in a just way. The JTM can be applied to any part of the EGD, and it does not matter what the ideas or strategies are; they should be done in a way that leaves no one behind.

Where *socio-technical transitions* focus on the social aspect by ensuring the most affected are taken into consideration, *sustainability pathways* also look at power relations, which are not present in the *socio-technical transition* discourse. Especially in empowering marginalised people and shifting power relations is essential in *sustainability pathways*. An example of this in the EGD is the Climate Pact, an initiative to help increase the involvement of citizens in EU decision making. The Commission mentions about the Climate Pact that:

“It [the Climate Pact] will continue to work to empower regional and local communities, including energy communities.” (European Commission, 2019b, p.23)

Giving citizens more say in decision making is also a great way to empower them and leave no one behind, which is an important aspect of the EGD. Different types of communication are discussed in the EGD, some more one-sided like education, and some more engaging types such as citizens' assemblies and stakeholder dialogue. The EU has already done some engaging communication such as citizens' dialogues and citizens' assemblies and plans to continue them:

“The Climate Pact will build on the Commission's on-going series of citizens' dialogues and citizens' assemblies across the EU, and the role of social dialogue committees.” (European Commission, 2019b, p.23)

These dialogues and assemblies focus mainly on what the Commission calls 'energy communities'. The acknowledgement and involvement of these energy communities and other communities show the willingness of the EU to involve citizens in more ways than just education and voting every four years. Empowering citizens can be a great way of shifting power relations as well as creating an inclusive environment where all types of ideas, solutions, and views can be heard and shared. All of this could help shift the hegemonic discourse away from economic growth and technology. On the downside, more dialogue can drag out the decision making process at a time when every minute counts.

The idea of JTM reflects a crucial part of the *sustainability pathways*. However, the ideas within the *sustainability pathways* discourse around multiple pathways are not so clearly reflected. There are multiple ideas for achieving the goals set in the EGD, and because it is so all-encompassing, there are many different strategies. That being said, there is no clear plan for different pathways when different scenarios happen. An explanation for the lack of plural pathways is that the EGD has already adopted one pathway over other pathways, which can be seen in the representation of transformative change as discussed throughout this research. This representation and pathway seem to be one of research, innovation, and economy with a social justice component, as will be discussed further in this chapter and the next. To summarise, parts

of the EGD reflect the justice aspect of this discourse. Nevertheless, the pathway part is not clearly reflected.

Systemic Transformation

Lastly, there is the *systemic transformation* discourse. An essential aspect of *systemic transformation* is the deep changes to structures. Instead of continuing along the current paths, the structures should change. The EGD does acknowledge these structural changes:

“At the same time, managing the transition will lead to significant structural changes in business models, skill requirements and relative prices.” (European Commission, 2019b, p.16)

This quote reflects that the transition will lead to structural changes in line with the *systemic transformation* discourse. However, these structural changes seem to be more focused on change within systems rather than between systems. This is where it slightly mismatches with the *systemic transformation* discourse. There are some more examples of structural change, for example:

“In addition, building on the results of its recent stock taking of better regulation policy, the Commission will improve the way its better regulation guidelines and supporting tools address sustainability and innovation issues.” (European Commission, 2019b, p.19)

One of the current structures is the linear growth model, and the EU seems to want to move away from that:

“It [EU industry] remains too ‘linear’, and dependent on a throughput of new materials extracted, traded and processed into goods, and finally disposed of as waste or emissions. Only 12% of the materials it uses come from recycling.” (European Commission, 2019b, p.7)

and

“You need to probably change the way we operate in that respect, so this is where the transformative element comes in, simply because also the change that we have to see has to be more of the exponential side and not on the linear side” (Interviewee 4)

Moving away from the current linear growth structure could constitute a structural change within the *systemic transformation* discourse. Linear growth is the current status quo and the current structure. Moving away from this means moving away from the current system, something that is at the core of *systemic transformation*. Furthermore, it broadens what we think of as possible, moving beyond linearity toward circularity and creating new ways to conceptualise the world. These examples show an opportunity to include different systems and potentially different ways of thinking as they call for moving away from current systems and structures. This can shift the current power relations from institutions, where most of the power lies in the current system, towards a civil society where power could go into a new system. Where other discourses might exclude the ideas of transforming to another system, the ideas of the current system might be excluded in the *systemic transformation* discourse.

That being said, the main focus of the EGD still seems to be one of economy and technology, systems that have been in place for decades, as shown through the examples in this subchapter. The *systemic transformation*, changing how things are currently being done in a ‘radical’ way,

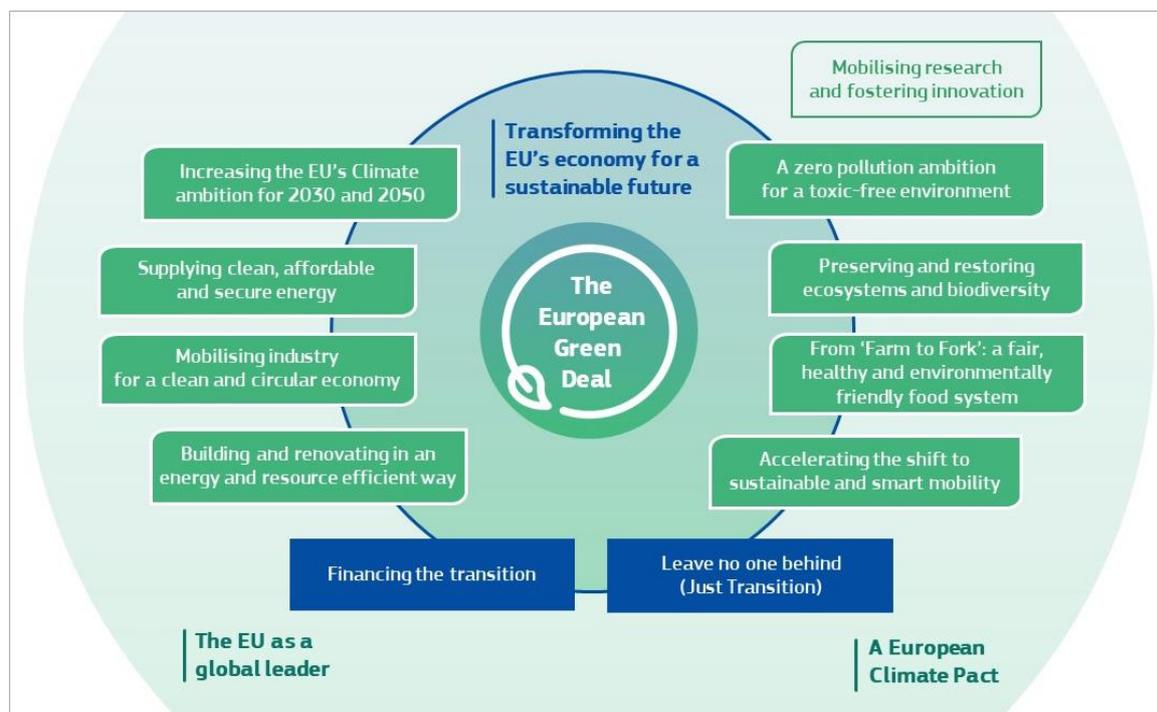
is not omnipresent in the EGD. As shown above, the EGD does have some ideas that line up with the discourse. However, most of it is still set in the current capitalistic or neoliberal systems that have got us where we are today. The idea of tackling the issues at the roots and changing how we operate, for example, moving towards a degrowth system where economic growth is not the highest value to be achieved, is not reflected in the EGD. Therefore, there is little overlap between this discourse and the representation of transformative change in the EGD.

4.2 Translating Discourse into Strategies

Similarly to the results for the first research question, the results in this subchapter will be guided by the transformative change discourses found in [subchapter 2.5](#). Each discourse will be individually discussed to see how the strategies in the EGD do or do not match with them, which is visualised in Table 3. When talking about how well the proposed strategies match with one of the seven discourses, it is written from the view of that discourse (e.g. research & development) to show from their perspective how it matches and why. The findings from the critical discourse analysis will reflect what the strategies imply and what kind of ideas and solutions they include and exclude. Figure 2 provides an overview of the different strategies presented within the EGD.

Figure 2

Visualisation of the European Green Deal



Note. From: European Commission. (2019b, December 11). Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions. The European Green Deal. COM(2019) 640 final. p.3.

Research & Development

There are some matches when it comes to the strategies in the EGD and the ideas of the research and development discourse. To start with, one of the main goals of policy, according to this discourse, is to make it easier for companies to conduct research and development. This goal is reflected in the EGD with strategies aimed at breakthrough technologies and making the EU a leader in sustainable products:

“The European Innovation Council will dedicate funding, equity investment and business acceleration services to high potential start-ups and SMEs for them to achieve breakthrough Green Deal innovation that can be scaled up rapidly on global markets for climate neutral and circular products, in the EU and beyond.” (European Commission, 2019b, p.18)

Approaches like these reflect a top-down approach, where companies are in charge of thinking up and implementing solutions, keeping civil society, their concerns and ideas out of the picture. There is a potential to include more civil society through the start-ups and small and medium-sized enterprises (SMEs) and create a more bottom-up approach.

Another essential aspect of *R&D* is public-private partnerships (PPPs), where governments and companies work together to achieve their goals. Again, this was reflected in both the EGD and the interviews:

“Partnerships with industry and Member States will support research and innovation on transport, including batteries, clean hydrogen, low-carbon steel making, circular bio-based sectors and the built environment.” (European Commission, 2019b, p.18)
and

“So when we try to resolve the issue of batteries, for example, we create partnerships. Partnerships between us as a public institution and private institutions. So all those companies or institutions they are actually innovating technologically, in that respect, and we create partnerships with. We’ll create long contracts five, six, seven years sometimes and we work in close collaboration.” (Interviewee 4)

Similar to the point made in the previous paragraph, the focus is very much on private institutions (e.g. companies) creating technological innovations to solve the climate crisis. PPPs have the ability to create new, out-of-the-box innovations since they are supported by public funding and do not yet have to be marketable. This could allow for radical innovation to be developed with fewer restrictions on what is possible. If done right, PPPs can include a wide range of ideas and solutions and create an equal power distribution among the stakeholders (so also citizens).

The Commission is also keen to support the research and development of breakthrough technologies, something it sees as crucial for reaching the objectives in the EGD as mentioned in the previous [subchapter \(4.1\)](#). In this case, the ambitions are matched with action:

“the Commission will support clean steel breakthrough technologies leading to a zero-carbon steel making process by 2030 and will explore whether part of the funding being liquidated under the European Coal and Steel Community can be used. More broadly, the EU Emissions Trading System Innovation Fund will help to deploy such large-scale innovative projects.” (European Commission, 2019b, pp.8-9)

Focusing on breakthrough innovation makes sense in a completely novel crisis. However, doing this does come with risks; we are putting our hopes of solving this crisis onto innovations that do not exist yet, excluding solutions that are already present in our society. The strong focus on breakthrough innovation includes a vision of research, development, and innovation but excludes a vision of looking for solutions in existing approaches, a point also made in [subchapter 4.1](#). The EGD looks at the world and the issue of climate change as solvable by innovation. Therefore, discourse structuration and even institutionalisation occur here. This shows an overlap between the strategies in the EGD and this discourse, as well as a match between the *R&D* discourse and strategies in the EGD. However, strategies such as the Just Transition Mechanism (JTM), where a solid social component is introduced into the EGD, make it an incomplete fit between the discourse and the EGD. That being said, the incomplete fit was also present in the representation of *R&D* in the EGD. Overall, the translation from the representation of transformative change to proposed strategies is fairly accurate.

Innovation Systems

Similar to *research & development*, innovation is an essential part of the *innovation systems* discourse. There are many different strategies within the EGD to create structures that facilitate innovation, which is the primary goal of the *innovation systems* discourse. One of the main projects coming from the EGD that was also often named by the interviewees is the missions of Horizon Europe, which is “EU’s key funding programme for research and innovation” (European Commission, 2018). Horizon Europe is part of the overarching strategy to increase research and innovation as these are “critical to achieve the objectives of the European Green Deal” (European Commission, 2019b, p.18). The approach of the missions of Horizon Europe is setting one goal and putting everything into motion to achieve this goal. It is often compared to putting a man on the moon:

“So the idea that at the time they said we want to put a man on the moon, so we are putting in place the research funding, the institutional structure and everything else so that goal is achieved. So it tries to apply this to other topics. So this very focused, let’s say research agenda and there are five of these missions that were started now.” (Interviewee 1)

The strategies to achieve these missions are, for example, bringing together universities, research organisations, and companies. The goals of these missions are to create new technologies and innovative value chains that will tackle specific problems such as soil health and climate-neutral cities:

“The full range of instruments available under the Horizon Europe programme will support the research and innovation efforts needed. Four ‘Green Deal Missions’ will help deliver large-scale changes in areas such as adaptation to climate change, oceans, cities and soil.” (European Commission, 2019b, p.18)

A similar strategy to create an enabling framework for innovation is also proposed:

“The regulatory framework for energy infrastructure, including the TEN-E Regulation, will need to be reviewed to ensure consistency with the climate neutrality objective. This framework should foster the deployment of innovative technologies and infrastructure” (European Commission, 2019b, p.6)

Strategies like these fit well into the *innovation systems* discourse as they create an enabling framework for all types of innovation to happen. The interesting thing about the missions is that it directs innovation in a specific direction that benefits civil society. So although the solutions of civil society might be excluded (although there are some plans for consultations), the concerns and worries of civil society are included since the innovation tackles issues such as beating cancer and making communities climate-resilient. That being said, the missions do still include more technological innovation than social innovation.

Provided in the EGD is Figure 2, a visual representation of the strategies proposed in the EGD. Encircling these policies is ‘mobilising research and fostering innovation’, which overlaps all other parts of the EGD. Hence innovation and research are seen as part of the solution for all strategies. This clearly reflects the *innovation systems* discourse where innovation is seen as the solution for all (environmental) issues. To ensure adequate innovations to solve the issues at hand, there are many strategies to increase innovations, especially when it comes to reducing emissions from the energy sector. For example, making more funding available that can be used to develop innovations:

“More broadly, the EU Emissions Trading System Innovation Fund will help to deploy such large-scale innovative projects.” (European Commission, 2019b, p.9)

The strategies supported by this funding are mainly focused on decarbonising the energy sector. The main ones seem to be renewables, phasing out of coal, and decarbonising gas. These all are solutions that still require technical innovations to become more efficient and reliable, leading to issues similar to those with breakthrough technologies discussed in the *research and development* section of this subchapter.

Similar to the representation of transformative change in the EGD (see [chapter 4.1](#)), the social aspect of the EGD is not well reflected in the *innovation systems* discourse. For example:

“Particular attention will be paid to the renovation of social housing, to help households who struggle to pay their energy bills.”

Renovating houses is technical. However, this strategy focuses on renovating social housing, which adds a social component unfamiliar to the *innovation systems* discourse. Renovating social housing is done to make sure no one is left behind, not necessarily something that the market would pick as a winner, which is the driving force of *innovation systems*.

All things considered, there are numerous similarities between the strategies in the EGD and the *innovation systems* discourse. These similarities are found in the EGD’s focus on missions, economic growth, markets, and technological innovations. On the other hand, the social component of the EGD is something that does not match this discourse. When it comes to the translation from discourse to strategies, the overlap between the *innovation systems* discourse and the strategies is similar to the overlap between the *innovation systems* discourse and the representation of transformative change (see [subchapter 4.1](#)). Therefore not much of a gap is present between the two.

Socio-technical Transition

The social component of the *socio-technical transition* (StT) discourse combined with the technical component is reflected in the Circular Economic Action Plan (CEAP), which is introduced in the EGD and the primary strategy to achieve an EU circular economy (European Commission, 2020c). Clearly, the circular economy has discursive hegemony when it comes to the solution to climate change. It includes strategies for the circular design of products and decarbonising energy-intensive industries. The right to repair is proposed, a strategy that will give consumers more opportunities to choose reusable and easily repairable products. A strategy to reduce greenwashing is also introduced; green claims need to be verifiable and comparable to make it easier for consumers to make informed decisions. In addition, more cooperation on the value chain is also a strategy for waste reduction, with a focus on a sustainable battery value chain. It is recognised that there will still be waste, so “where waste cannot be avoided, its economic value must be recovered and its impact on the environment and on climate change avoided or minimised” (European Commission, 2019b, p.8). This is a great example of the *StT* discourse as it involves the technical and economic system by creating products and industry to fit the circular economy. Furthermore, it involves the social system by reducing greenwashing and making it easier for consumers to make informed and sustainable decisions. It is also a transition from the linear production system toward the circular production system, and an essential component of the *StT* discourse is system change. That being said, the CEAP is still focused on the technical side of circularity, creating innovation for waste reduction and recycling. This does exclude some of the more social approaches, which are part of the *socio-technical transition* discourse, however, the right to repair and reducing greenwashing claims do add a more social approach to the CEAP.

Another example of a strategy that matches the *socio-technical transition* discourse is the strategy to reduce emissions and energy poverty by renovating housing:

“To address the twin challenge of energy efficiency and affordability, the EU and the Member States should engage in a ‘renovation wave’ of public and private buildings. While increasing renovation rates is a challenge, renovation lowers energy bills, and can reduce energy poverty.” (European Commission, 2019b, p.9)

The strategy has a technical side, the renovation, how do you effectively insulate a house and a social side, reducing people's energy bills, with a focus on those who struggle to get by. Another social aspect of the strategy is creating an open platform for stakeholders to exchange their ideas, increasing the agency, which is also an important part of this discourse. Therefore this proposed strategy includes both technical and social aspects quite equally.

In the section above about the *innovation systems* discourse, Horizon Europe is mentioned as an example of that discourse. However, part of the idea behind Horizon Europe can also be seen as a characteristic of the *socio-technical transition* discourse, specifically the part about public investment, as it links to multi-level perspective theory. This strategy is not mentioned in the EGD but rather by an interviewee working at the Directorate General for Research and Innovation:

“It [Horizon Europe] is by far the biggest international program in terms of money to deal with climate change for research and innovation. The fact that we are giving so

much money because we realise that the markets are not going to do it for this upstream type. The markets are always going to take ideas which are close to commercialization because the markets operate with profit, but who is going to do this push in order to arrive to that?" (Interviewee 4)

Besides an example of a public investment strategy, this quote is an excellent example of the multi-level perspective (MLP) theory, part of *socio-technical transitions*, specifically niche-innovation. Niche-innovation is one of the levels where transitions can start; radical innovations can be created away from the market forces. The interviewee talks about how some innovation is not stable and should just be kept away from the market and funded by public institutions until they can be commercialised, which is in line with the MLP theory. Such an approach could lead to the inclusion of many different ideas and solutions if action is taken to listen to those ideas and solutions.

To sum it up, significant similarities exist between the *socio-technical transition* discourse and the proposed strategies in the EGD. As explained in the previous section, many strategies propose technical innovation. However, there is also a social component to many of these and strategies like the Just Transition Mechanism also add to the social component of the whole EGD. The presence of the MLP theory is less evident within the EGD, although there are some examples. The discourse and proposed strategies of the EGD both are a good fit with the *socio-technical transition* discourse. Consequently, there seems to be no fundamental mismatch in the translation from discourse to proposed strategies for this discourse in the EGD.

Transformative Social Practice

When it comes to creating *transformative social practice*, it is not about giving consumers more options. Instead, it is about creating new practices, changing the norm, and removing unsustainable options from the range of choices. This idea is not mentioned often in the EGD, but it is present in some of the ideas in the EGD, for example:

"It [the Circular Economy Action Plan] will foster new business models and set minimum requirements to prevent environmentally harmful products from being placed on the EU market." (European Commission, 2019b, p.7)

Instead of just offering more sustainable products, the EU wants to remove unsustainable products from its market. This will allow for other products ('materials' in social practice theory, see [subchapter 2.5](#)) to become the norm and, thus, new social practices to be formed around them, which is in line with what *TSP* scholars see as the solution. Of course, by limiting what is allowed onto the market, you exclude some innovations from entering the market, innovations that could solve some of the issues at hand. Nevertheless, it does consider the social concerns and the harm those products can have.

One of the main ideas of *transformative social practice* is that any technology should be embedded into society. To *TSP* scholars, technology has no added value if not combined with society. This idea can also be found in the EGD:

"The Horizon Europe programme will also involve local communities in working towards a more sustainable future, in initiatives that seek to combine societal pull and technology push." (European Commission, 2019b, p.18)

The idea of including locals in the creation of innovation is an important part of the Horizon Europe programme. The involvement of locals in this programme could allow for better integration of technology into society and deliver innovation that has a purpose and includes social concerns, not just innovation for the sake of innovation.

A strategy that was not explicitly present in the EGD but was brought up in one of the interviews fits quite well with the *transformative social practice*, namely creating a community around a social practice:

“But if the society is going to take that up, it is not given up. So you may have, you create this clubs of bikers, for example, or this sharing economy so you can create a platform where people who cannot afford necessarily the bike can find those electric bikes by very small subscription, and then they create a community of people that they operate around.” (Interviewee 4)

Creating a community around a practice, in this case cycling, could help create new norms among the community members and shift the norm from taking the car to taking the bike to work. This way, new sustainable social practices are created. They are not enforced, taught or incentivised. Rather, the community members did it for themselves and a sense of community and shared norms. The inclusive nature of the community proposed is a nice touch, this way, even people who cannot necessarily afford it can be part of it, leaving fewer boundaries. Still, there is a risk of exclusion in any community due to discrimination or other boundaries when trying to fit in somewhere.

Despite these examples of the EGD following the *TSP* discourse, there are more than enough examples of the EGD going against the *TSP* discourse. The main ideas present in the EGD that oppose the *TSP* discourse are that education will help bring sustainable change and the idea of changing structures to change individual behaviour. An example of the latter idea is visible in this quote:

“These policy reforms [of all climate-related policies to meet the EGD objectives] will help to ensure effective carbon pricing throughout the economy. This will encourage changes in consumer and business behaviour, and facilitate an increase in sustainable public and private investment.” (European Commission, 2019b, p.5)

This quote reflects that individual consumers will change without introducing new practices if we change certain incentives. However, this is not something that scholars of *TSP* see as the solution. Instead of giving incentives to change but still keeping the ‘unsustainable’ options, it calls for removing the ‘unsustainable’ options entirely, as shown in a previous paragraph. It is a small detail, but to *TSP* scholars, this is the difference that will create transformative social practices.

Another main difference between the *transformative social practice* discourse and the EGD is that technology is often not embedded into social practice, as can be seen from the quotes and explanations given in the sections about the *research & development* discourse and the *innovation systems* discourse but also in this quote from the EGD:

“The EU needs to develop innovative ways to protect harvests from pests and diseases and to consider the potential role of new innovative techniques to improve the sustainability of the food system, while ensuring that they are safe.” (European Commission, 2019b, p.12)

A more *transformative social practice* approach would have been a strategy where farmers were involved in creating new farming practices instead of just delivering technical solutions. However, this approach includes innovation whilst leaving out existing practices such as crop rotations and other practices from organic agriculture.

On the whole, although there is some correspondence between *transformative social practice* and the EGD. The EGD in its entirety does not reflect the *transformative social practice* discourse adequately. Interestingly, there is more action than discourse when it comes to *transformative social practice*, showing a gap in the translation between discourse and strategies. However, the main focus is on a mistranslation from words to action, not the other way around, because the strategies also reflect a specific discourse. Therefore, the gap does mean the words are promising something the action cannot deliver. As a result, the gap does not affect the outcome or accuracy of the discourse of the EGD.

Social-ecological Transition

Although previous sections have shown strategies with social components, few strategies reflect the goal of the social-ecological transition (SeT) discourse to change how we interact with nature. For example, there are strategies in the EGD to reduce the pressure on EU ecosystems. To do so, the Commission proposed reducing the impact of fisheries and improving and maintaining the forested areas. However, this is not about fundamentally changing how we interact with the natural world. The strategies that come closest and have some potential are ‘nature-based solutions’, for example:

“More generally, lasting solutions to climate change require greater attention to nature-based solutions including healthy and resilient seas and oceans. The Commission will analyse the findings of the International Panel on Climate Change special report on oceans and propose measures in the maritime area.” (European Commission, 2019b, p.14)

Nature-based solutions also play an important part in Horizon Europe (see *innovation systems* section in [subchapter 4.1](#)). Nature-based solutions are “Solutions that are inspired and supported by nature” (European Commission, 2020d). The European Commission (2022) acknowledges the importance of nature-based solutions for an environmentally-conscious economy. So, nature-based solutions are an important approach in the EGD and Horizon Europe. However, in the EGD, there are no specifics on what those solutions are or what values they should be based on. There is potential for *SeT* strategies if these nature-based solutions are aimed at showing us the importance of nature both because of their services and their intrinsic value. Additionally, this quote also shows how the International Panel on Climate Change (IPCC) influences the policies of the EU. Although the IPCC is a reputable source, some influence comes from using their document that could include or exclude certain ideas not originally included or excluded in the EGD. The tone of strategies of the IPCC seems more

focused on the natural side of things, mentioning, for example, “Safeguarding and strengthening nature is key to securing a liveable future” (IPCC, 2022b). In the same article, the economy is only mentioned once, economic growth zero times and nature nine times, which is different from the ‘new growth strategy’ narrative of the EGD.

Some strategies call for environmental protection in the EGD, for example:

“The natural functions of ground and surface water must be restored. This is essential to preserve and restore biodiversity in lakes, rivers, wetlands and estuaries, and to prevent and limit damage from floods.” (European Commission, 2019b, p.14)

and

“To ensure a toxic-free environment, the Commission will present a chemicals strategy for sustainability. This will both help to protect citizens, and the environment better against hazardous chemicals and encourage innovation for the development of safe and sustainable alternatives.” (European Commission, 2019b, p.15)

Although, overall, when it comes to the *social-ecological transition*, there are a few strategies for environmental protection, and the Commission promises to integrate environmental protection into all EU policies (see [subchapter 4.1](#)). However, there are no strategies for changing how we interact with nature. So although it does acknowledge the ecological side of this issue, there are no specific strategies that match the *social-ecological transition*. This mismatch between the *social-ecological transition* discourse and the EGD is also seen in the results of the first research question (see [subchapter 4.1](#)) on the representation of transformative change. Therefore the discourse is quite accurately translated into the proposed strategies when it comes to the *social-ecological transition* discourse.

Sustainability Pathways

When it comes to the *sustainability pathways* discourse and specifically the focus on justice, the main strategy that corresponds with this is the Just Transition Mechanism (JTM). Although a just transition is not explicit in all strategies, the JTM provides an overarching strategy to protect marginalised people and provide justice for the most affected people:

“It [the JTM] will also strive to protect the citizens and workers most vulnerable to the transition, providing access to re-skilling programmes, jobs in new economic sectors, or energy-efficient housing. (...) The need for a socially just transition must also be reflected in policies at EU and national level. This includes investment to provide affordable solutions to those affected by carbon pricing policies, for example through public transport, as well as measures to address energy poverty and promote re-skilling.” (European Commission, p.16)

The strategies are clearly focused on justice and consider the adverse effects that the policies might have. The social effects of reaching the objectives are considered, and there is an effort to dampen the hardest blows, with the main strategy including investments. These are all strategies aimed at a just transition.

One of the sectors where a just transition strategy is explicitly mentioned is energy. An essential issue in a just transition is to take consumers into account and to make them benefit from this transition as well as make sure the energy is secure and affordable by producing at the lowest

possible cost. In line with this is the strategy to reduce energy poverty by, among other things, renovating houses. Reduction of energy poverty was found both in the EGD and the interviews:

“The risk of energy poverty must be addressed for households that cannot afford key energy services to ensure a basic standard of living. Effective programmes, such as financing schemes for households to renovate their houses, can reduce energy bills and help the environment.” (European Commission, 2019b, p.6)

and

“NextGenerationEU is something new, and it is unprecedentedly huge. To try and address the most immediate and intuitive social aspects of the green transition. Because if you see the price of a heat pump or the price of going solar for your house or the price of buying a good electric car. Immediately you see this stuff for bourgeois people in the Brussels Beltway or in Paris if you are French. There is a package in Fit For 55 which allocates 72 something billion to address. I mean, it is a drop in the sea, it is not, you know, exhaustive, but it is already a big sign of progress in energy poverty and inequality” (Interviewee 5)

The EU seems to be well aware of the effects the strategies in the EGD can have and are proposing strategies to reduce the adverse effects. The interviewee acknowledges that they come from a privileged position, not all EU citizens enjoy. This awareness and consideration of justice and vulnerable people fit well with the *sustainability pathways* discourse. Accordingly, increasing the effectiveness of heating homes is an important step. It should include decarbonisation of the energy sector, but the EGD does seem to take this into consideration.

In brief, the social justice aspect of this discourse is relatively well represented, however, the other aspects of this discourse, such as multiple pathways, the politics of institutional change, and the idea that different people experience things differently, are not explicitly present in the proposed strategies for the EGD. Nevertheless, a similar match was found in the representation of *sustainability pathways* (see [subchapter 4.1](#)), indicating that the discourse is translated accurately into proposed strategies in the EGD.

Systemic Transformation

Finally, when it comes to the strategies supporting the *systemic transformation* discourse, none of the strategies in the EGD supports a complete change of the current system. An argument could be made for the circular economy to support a system change but following the literature review, this fits better with the *socio-technical transitions*, as it still functions within the current economic system. One of the strategies that do have the potential to transform the current system (note that the line of when a new system starts is ambiguous) is the citizens’ assemblies:

“The Climate Pact will build on the Commission’s on-going series of citizens’ dialogues and citizens’ assemblies across the EU, and the role of social dialogue committees.” (European Commission, 2019b, p.23)

In short, a citizens’ assembly is a gathering of randomly chosen citizens to deliberate on a specific issue. The assemblies could shift the decision making power towards citizens and away from (inter)national leaders and politicians. The current representative democratic system in many EU countries where citizens elect representatives could transform into a direct democracy where citizens directly influence decision making.

Although there are barely any proposed strategies in the EGD that match *systemic transformation*; one of the interviewees did mention something:

“You have to change our economic model and the power relations to get anywhere and I think that is at the core of your concept [transformative change], or it should be, at least in the execution of it, because the current power relations are based on exploitation and on growth, which is not possible on a finite planet. [...] So those power relations and the economic system should shift one way or another” (Interviewee 3)

It is worth mentioning that this interviewee is part of the Left group in the European Parliament (see Appendix III), a radical left political party, so not wholly representative of the primary author of the EGD, the European Commission. That being said, the European Parliament did have a say in the amendments and acceptance of the EGD as a controlling power. Changing the current power relations and economic model is at the core of what the scholars of the *systemic transformation* discourse want, because changing power relations can change systems. Therefore there is some overlap between the discourse and the EGD, but still limited.

There seems to be more focus on the technical strategies than the social and environmental strategies in the EGD. In general, when it comes to the EGD, the further down (from section 2.1.1 to 2.1.8) the more social and environmentally conscious the strategies become. At the start, there is a section called ‘Supplying clean, affordable and secure energy’, and one of the last chapters is called ‘Preserving and restoring ecosystems and biodiversity’. In the world of policy, where every little detail is discussed, it seems like this is also saying something about the importance of technical versus social and environmental policies and how the concept of transformative change is performed through small details like these.

Table 3

*Different discourses of transformative change, their characteristics based on a literature review. The characteristics that are also present in the EGD are in **bold**. **Bold** and with an asterisk (*) means that it is present in the discourse but not in the strategies around transformative change in the EGD*

Discourse	Main characteristics found in the EGD
Research and development	<ul style="list-style-type: none"> • Goal: scientific and technological knowledge production • Type of innovation: technical • Actors: State that finance, private sector that perform R&D, scientists • System: technological • Innovation for growth • All innovation is good innovation • Technology as magic bullet for crises • State should finance, private sector should perform R&D • Policy is based on the linear model of innovation • Policy provides favourable conditions for businesses to conduct R&D

Innovation systems	<ul style="list-style-type: none"> • Goal: Focus on creating enabling framework conditions for any innovation to happen • Type of innovation: technology • Actors: Triple helix of actors, academia, industry and government • System: technological • Not all innovation is good innovation • Interactions between actors are important • The market should pick winners • Growth and output are important • It is crucial to have a growing economy to keep up in international markets • User-producer relations are crucial
Socio-technical transitions	<ul style="list-style-type: none"> • Goal: green growth to stop pollution and environmental degradation • Type of innovation: social and technological • Actors: diverse range • System: socio-technical • Societal and economic policy agenda • Change the system towards more sustainable production and consumption • Reflective towards own strategies • Co-evolution
Transformative social practice	<ul style="list-style-type: none"> • Goal: changing social practice to move toward a more sustainable way of living • Type of innovation: sustainable social practices • Actors: consumers and producers • System: social • State should be involved because they regulate the elements • Development of certain social practices can help develop sustainable behaviour • Sustainable elements should replace unsustainable elements • Technology will only help if it is integrated into social practice • Ongoing and dynamic
Socio-ecological transformation	<ul style="list-style-type: none"> • Goal: transformation through changing the relationship with the environment and the way we interact with it * • Type of innovation: social • Actors: everything within the biosphere • System: ecological, social • Multi-scalar • The capacity of the ecosystem's production of services should be respected * • Critical view of strategies and their intended and unintended effects

Sustainability pathways	<ul style="list-style-type: none"> • Goal: emphasises the need for balance between human development objectives, justice, and ecological sustainability * • Type of innovation: social • Actors: everyone with a focus on the marginalised and the poor • Systems: complex systems • Focus on the power and politics of institutional change • Different people experience things differently, which should be taken into account • There are many different ways to achieve their goal • Transformations towards sustainability should also lead to more justice and the reduction of poverty
Systemic transformation	<ul style="list-style-type: none"> • Goal: “contesting change, and transforming social and political relations and paradigms to open up new possibilities for the future” (Patterson et al., 2017, p.10). • Type of innovation: technology, human behaviour, social relationships, social context • Actors: everyone • System: social, technical, environmental and political • Systemic change * • Power dynamics play an essential role • Acknowledges that there will be resistance

4.3 Justifying and Legitimising Strategies

The previous two subchapters have shown the discourses and strategies presented in the EGD, respectively. It has been shown that there are some mismatches between what is said and what is done. The words seem to be more ambitious than the actions. This subchapter will build on that by looking at the justifications for those mismatches present within the EGD and the conducted interviews. Although the interviewees work at the EU institutions, these statements do not reflect the views of the EU institutions but rather their personal opinions on the matter. In total, six different discourses have been identified. I will go over them, explain what they are, highlight some power dynamics present in them, and what norms are underlying each justification.

Alternatives Are Worse

The *alternatives are worse* discourse is based on the idea that if the EU made its strategies more ambitious, it would have adverse effects. Therefore, the strategies should be adhered to exactly as the EU proposes them right now, this excludes certain strategies from being considered. A frequent idea is that companies will move away from the EU into other countries:

“This is at the heart of the deindustrialization question, so carbon leakage, meaning that we just tighten our screws and the costs go up for our industry so much that our industry says, ‘you know what? I am going to go to Turkey or to I do not know China

or wherever else, and I am going to produce there in a much cheaper way.’” (Interviewee 8)

Companies moving away have two negative consequences for the EU. First, it decreases its income. Secondly, it puts those companies outside of the EU’s jurisdiction, so it cannot impose climate and other regulations on them. This discourse allows the EU not to increase its ambitions and blame others, as it cannot move even if it wanted to. The EU likes to paint the picture of itself as a global leader, a frontrunner that can set things into motion, but that frame is weakened through this discourse; it is just another player in the global field of climate policy.

Although companies leaving would be perceived by many as a negative consequence, a few companies leaving could be manageable. However, there is not just a fear of a few companies leaving but even of the whole EU being deserted:

“It would be stupid because I mean if you set very strict, very ambitious rules this has no impact outside of Europe, what you end up doing is industrial desertifying Europe, impoverishing Europe, destroying our social/prosperity model and creating poverty for people and at the same time what sort of favour do you do to the global environment: none” (Interviewee 5)

It is implied in this quote that strict rules will lead to all industries leaving, which will lead to the impoverishment of the EU. This is based on the idea that the industry is the most crucial part of our society and leaves no room for other ideas. The importance of the industry is an integral part of how the European Commission conceptualises the world, and therefore, this is a case of discourse structuration. Of course, there is truth to this, but statements like these leave little room for different ideas and solutions. The interviewee jumps quickly from stricter rules to no industry. All of the EU industry leaving would have adverse effects. Nevertheless, this quote leaves out that this might not happen and that the EU is a big market that many other countries depend on, so the EU has more leverage when it comes to stricter rules than is painted in this picture. Instead, the frame of the EU as powerless seems to come forward more in this quote.

The idea of ‘destroying our social/prosperity model’ (see the previous quote) is not just believed to come from the industry leaving but also if we implement more ambitious alternatives. For example, the alternative of focusing on behavioural changes:

“I think what you have to do is in order to actually get anywhere, you can always say, oh, this is not enough this is not enough, but then what in the end, is the alternative? If you start saying that people are not allowed to drive anymore, people are not allowed to fly anymore, people are not allowed to heat their houses anymore, because it is simply too much CO2. You would reach a better result, but do you actually allow people still to work, and do you allow them still to go on?” (Interviewee 8)

Two things are happening in this quote; first, it immediately jumps to the extremes, which makes sense to an extent in this example. However, jumping to extremes excludes the middle ground, where most policies are established. Additionally, you make the alternatives look ridiculous, and by grouping all the things, you make it harder to look at the ideas in a separate manner. Advocates for flying less are now painted as people who do not want you to heat your houses, which is probably incorrect. A second thing that happens is that it keeps the current

societal structure and values intact and presents it as the only way to live, creating a discursive hegemony. As inhabitants of Western countries, we have got very used to our current way of living, eating meat, driving cars, flying to vacation destinations multiple times a year, a house filled with things, et cetera. However, not even that long ago, there were times when we did not have all of those things, and people were okay. Again, this dominant discourse of our current lifestyle leaves little room for deviating from the current systems and structures.

Be Realistic

The *be realistic* discourse upholds that ambitious, transformative strategies are not realistic in what they want. For strategies to work, they should operate in the current reality:

“But I told you have to see if it is feasible or not, and here on the feasibility, yeah, I think we should stay ambitious, but we also should be realistic. We should not create vulnerabilities for ourself.” (Interviewee 6)

The idea of ‘being realistic’ is really interesting because, as discussed in [subchapter 2.4](#), the idea exists that reality is constructed and different constructed realities exist. Therefore, depending on whom you ask, different strategies would be categorised as realistic. There probably exist strategies in the EGD that others do not find realistic. For example, the current reality of the EU seems to be one of market dynamics and technological innovation, so consequently, strategies that fall outside of that reality would be considered unrealistic, creating discourse structuration. This indicates a discursive hegemony of the discourse around market dynamics and technological innovation. On the other hand, you have movements like degrowth, which have a completely different reality, exemplified by this quote from one of the interviews:

“I think the happiness in degrowth, I am not buying it. I think I am not, I think it is a fantasy, a bourgeoisie fantasy by people who can spend premium to buy organic vegetables in expensive organic vegetable stalls.” (Interviewee 5)

Advocates for degrowth would not consider degrowth to be unrealistic. Instead, they would see the current way of doing things as unrealistic. The quote shows that the interviewee has constructed the reality of degrowth as something for the rich, which can be true in some cases. However, there are also other realities of what degrowth entails. Categorising strategies as unrealistic often leaves out any debate on the strategy or where it is coming from, maintaining the power of the status quo. In an age of polarisation, putting away ideas as unrealistic only furthers the divide and reduces the chance of fruitful and constructive discussion. This discourse is an interesting example of including and excluding specific ideas to fit best the ideas of a specific discourse and its reality, based on its norms and values. These norms and values decide which ideas are included and which are excluded. The norms and values of the EU are reflected in its strategies and seem to be based greatly on the economy and market. These dominant norms and values and the discourse that comes from them make it harder for other discourses to be considered or taken seriously, further perpetuating the current discourse.

Certain Things Are Just Needed

The *certain things are needed* discourse reflects the justification for strategies that there is a necessity for certain things. An example of those necessities is the energy-intensive industries, reflected by the European Green Deal and the interviews:

“Energy-intensive industries, such as steel, chemicals and cement, are indispensable to Europe’s economy, as they supply several key value chains.” (European Commission, 2019b, p.7)

and

“We want climate protection, we want climate neutrality, but we would like to do that together with the industry, we would like to be global leaders in clean technologies” (Interviewee 6)

This discourse builds on the overall idea in the EGD of decoupling resource use from environmental degradation, thus allowing for the industry to remain and nature to be protected. A strong discursive hegemony is created around this idea throughout the whole EGD. Although there is nothing wrong with this per se, it does keep the focus on one dominant discourse, that of growth and industrialisation. By focusing on the need of the industry, the solutions that are looked at are limited. The solutions are mainly focused on decarbonising, excluding solutions in the realm of producing less. Whether the industry is decarbonised, it could still be seen as the current system and thus not very transformative. A decarbonised industry would be a change within a system, not a transformation from one system to another. By identifying certain things as necessary, the lack of ambition can be justified by pointing to the idea that certain things are just needed, and there is nothing we can do about that. Again, this paints the EU as not having access to all solutions, thus keeping things working the same way and maintaining their power.

A similar point about necessity is made in the EGD when it comes to raw materials:

“Ensuring the supply of sustainable raw materials, in particular of critical raw materials necessary for clean technologies, digital, space and defence applications, by diversifying supply from both primary and secondary sources, is therefore one of the prerequisites to make this transition happen.” (European Commission, 2019b, p.8)

The strategies proposed in the EGD require a lot of raw materials, which need to be extracted, something that does not always happen in the most environmentally conscious and humane way. However, you eliminate all debate around choice by focusing on the absolute need for these materials (we will not reach the goals if we do not have them). Statements like this are hard to argue with; if you are against the extraction of raw materials, you are also against reaching the targets. If you eliminate the choice between more or less production and focus only on more production, you cannot argue with the fact that we need resources for that. Instead, the argument is about how we will extract those materials. On the other hand, if the idea of less production were acknowledged, the idea of needing more raw materials would be weaker. This shows that the growth discourse excludes certain solutions as it does not fit that discourse, maintaining its discursive hegemony.

Doing the Best We Can

Admittedly this is a broad discourse, and it has some overlap with the other discourses. Nevertheless, it is one of the more common discourses in the EGD and the interviews. The ‘doing the best we can’ discourse justifies the strategies taken and the mismatches between discourse and strategies by arguing that they are doing the best they can in the current situation with the current tools. The examples are rather specific, for example, when it comes to pesticides:

“I saw this discussion about, I can take an example of neonicotinoid. We know that they are killing bees and we banned them but sometimes you know there is this emergency approval in Member States. They use it, sometimes they abuse it but they said I have no other solution now this year because of the climate. Also I have a situation of a lot of disease. And what should I do? I do not have anything else instead to address this issue and then the only things I do is to use the old method. Let me do it in an emergency for this year, for a restricted area or for one crop. So you see, this is not always very easy” (Interviewee 6)

An example is given of certain strategies not working out because there are no alternative tools, in this case, a banned pesticide. It presents a real issue; it is hard to implement the strategies successfully without fitting solutions. Furthermore, there seems to be no preparation for emergencies like these. If backup plans existed, the need to go back to harmful pesticides might not be there. Without a backup plan, it is easier to argue for the use of pesticides, keeping the resources and power in the hand of pesticide producers instead of farmers. In contrast, the presence of a backup plan would make it harder to argue for the use of pesticides, and therefore the rules would be implemented more effectively. With the climate changing, more droughts and other events that have adverse effects on agriculture are expected, making it even more essential to have a backup plan. The issue of pesticides is also mentioned in the EGD:

“The EU needs to develop innovative ways to protect harvests from pests and diseases and to consider the potential role of new innovative techniques to improve the sustainability of the food system, while ensuring that they are safe.” (European Commission, 2019b, p.12)

This quote provides a similar narrative to the previous quote, where nothing is done due to a lack of tools. It also reflects the idea that there are no other solutions to the problems at hand. Thus they will not be solved until new tools are presented, keeping up the same hegemonic power and discourse until that happens (or even after). This idea is accurate for some of the issues, but when it comes to the example of pesticides, solutions such as organic farming and crop rotations exist that could reduce the need for pesticides. However, as shown in the first quote, the system still relies on banned pesticides, a clear example that if you do not transform the system away from the harmful practices, it will be hard to actually change. The idea of insufficient tools allows the EU to wait until a solution is presented instead of looking at what already exists that could be of use. Essentially, this allows the EU to perpetuate the way of thinking of the current system because it excludes solutions that may lie outside the current way of thinking by perpetuating the idea that there are no solutions yet.

Another argument within the *doing the best we can* discourse is that we need to function within the current system. We have to deal with rules and structures and account for them when strategies are proposed. For example, the capitalist system we currently find ourselves in:

“So what we are saying is that we have to work with what is out there, otherwise you cannot work in a vacuum. You cannot say simply I refuse to work in a capitalistic system because we have a system of markets which give value to things. And the fact that we speak today over this particular technology because of this system as well. The question is, you have to question to what extent this system works perfectly. And it doesn't” (Interviewee 4)

The interviewee admits that the current system is not perfect and needs work, arguing that we have to fix the current one rather than transition to another system. The point is made that we cannot just change the system; it will create a vacuum that would not help anyone. Statements like these create discourse structuration around the idea of the industry being indispensable. This discourse continues the idea that the EU is powerless rather than finding ways to empower. The idea of a powerless EU excludes specific solutions outside of the system because the EU does not have the power to make such radical changes. This leaves out any debate around different strategies, and debate is essential in controversial issues such as climate change to make sure all concerns are considered.

Role of the EU

Another justification discourse is *role of the EU*, about whether or not this is the role of the EU to do something. There are many debates about what the EU can and cannot decide. The EU seems to create a narrative where if it has control over certain things, the role and capabilities of the EU are played up, and when it does not have this control, the role and capabilities of the EU are played down. For example:

“but I would definitely say that the Commission's emphasis is more on the what you're saying technology, research, supporting innovation because I think that's where the EU is also stronger in the sense of, for example, giving research funding, I mean a lot of what the Commission does is essentially giving funding to the different policy areas, and that's where it has a lot of weight I think.” (Interviewee 1)

This discourse allows for the EU to exclude specific solutions because it does not lie within the possibilities of the EU whilst simultaneously playing up its stronger sides. The areas where the EU plays a more prominent role also seem to be the more technical, market-based solutions, as shown in the quote above. The areas that lie outside of the EU's influence seem to be focused on the social side, though there is consideration of those strategies, visible in this quote:

“but I would refrain from the EU giving direct orders to citizens on what to behave and not behave. I personally think that would go too far, but incentives and recommendation for behavioural change, yes” (Interviewee 8)

Here a more questioning attitude is applied to thinking about the EU in this role compared to the first quote. However, compared to other examples in this section, there is a more open nature to these quotes, where the other solutions are not immediately excluded but taken into consideration. Apparently, there is a more general understanding of the need for behavioural change in the EU discourse, which could shift the power to citizens. However, it should be ensured that the responsibility is still with the governments and corporations. This shows a shift in the EU thinking, moving from only technical to a more social focus, an observation confirmed by one of the interviewees:

“The social sustainability, this is something new, this is something in the making” (Interviewee 9)

Contrarily to the previous examples, some areas are not the role of the EU by law. Certain topics are not EU competencies, and the Member States have full authority over those subjects. An example of this taxation, something that could be part of the solution to climate change, e.g. tax on animal products or fossil fuel transport. Taxation is a point that also came forward in the interviews:

“However, when you say through tax incentives, tax obviously is not an EU competence, it's a Member State competence” (Interviewee 8)

Taxation is a complex subject since the EU can advise the Member States to implement, e.g. a meat tax. However, anything more than advice is not within its mandate. This excludes many different incentives for companies and people to make more sustainable decisions (both for the environment and monetarily)

We Are in the Hands of Others

Similar to the previous discourse, the *we are in the hands of others* discourse has some overlap with other discourses. For example, *doing the best we can* discourse and *alternatives are worse* discourse regarding companies (others) leaving, which would be bad for economic growth. The justification that follows this discourse is that certain strategies are included and others excluded because of the influence that institutions and other stakeholders have on the strategies. One of the ways these influences can play out is in a compromise:

“You have to be very conscious of the fact that everything is a compromise. Especially when it comes to the things that comes from the [European] Commission, because, on the one hand, they have to agree within the Commission and after that, they have to present something that they think the European Parliament will agree with, and a big part of the Parliament is very conservative, and after that, they have to get the (European) Council along.” (Interviewee 3)

The idea of everything being a compromise allows the Commission to create less ambitious strategies because everyone has to agree with them. The Commission tried to be more ambitious, but *others* objected, keeping up the current hegemonic discourse and power relations. Of course, this is a very valid point; the EU is a democracy, so compromise and listening to what others have to say is part of it. These compromises influence what strategies are included and excluded and maintain a certain status quo by never entirely going against the current way of thinking. Democracy is great, but it also often lags behind, as brought up in an interview:

“I mean I have a seven years still similar cycle for the policy. Sometimes you know our legislative process does not follow so quickly, so we need with the system of the European Union about three years to conclude the reform. So it is a long time [...] I mean, there are a lot of discussion about speeding up the decision-making process in the European Union, but we are a Union of the 27 Member States, and yes, democracy has a certain speed.” (Interviewee 6)

The people in power are the ones that benefit most from maintaining the status quo because that is how they got their power in the first place, something that was also mentioned by one of the interviewees:

“And the status quo does not want us to choose, that we can choose for deforestation-free meat or even no meat at all. In fact, plant-based meat substitutes cannot even be called burgers or whatever” (Interviewee 3)

Maybe this is something that we have to accept as a consequence of democracy. However, the least that can be done is to match the words with the actions. As some of the mismatches between the first and second research questions have shown, the words are sometimes more ambitious than the actions. If the actions are less ambitious because of democracy, which is understandable, the words should not try to keep up a façade of more ambition.

Besides the constant compromise, there are also rules outside of the EU that should be upheld and followed, allowing for a justification that not everything is possible because others are in the way:

“He is [President of France, Emmanuelle Macron] very keen to develop to further work into this what they call the mirror clause and ensure the kind of equivalency of products coming from abroad, this was our standards, but that's not an easy exercise because we have an international, World Trade Organization rules and other rules for trade. And we have to be very careful and handling this, not to breach these rules” (Interviewee 6)

Statements like these create a frame where there would be more ambitious strategies if it were up to the EU, but it is not, so more ambitious strategies are put aside. Consequently, it takes out of the public debate that the EU might not even want these more ambitious strategies, this risks the possibility of putting all the blame on others instead of taking responsibility.

Besides putting part of the blame on compromise or other institutions, civil society is also seen as one of the reasons why the strategies are the way they are. The support of the public is seen as crucial for the success of the EGD:

“The involvement and commitment of the public and of all stakeholders is crucial to the success of the European Green Deal. Recent political events show that game-changing policies only work if citizens are fully involved in designing them.” (European Commission, 2019b, p.22)

Therefore, the strategies should not adversely affect civil society too much, an idea also shared by an interviewee:

And we are understanding more and more that when you lose the support of the people, political support, the objective will not be reached. (...) If you want the support of the people, you need to make sure they are not disproportionately affected by the costs of the transition” (Interviewee 2)

This focus on the support of civil society can have two effects on policy. First, strategies can consider the social impacts more, and more strategies can be considered to appease citizens. Second, it gives the EU the possibility to blame strategies not being ambitious enough on citizens. If the citizens do not want it, then it will not happen. The difficulty of this is that many different ideas exist among EU citizens. With every policy, some will be for and others against it. This could lead to a frame where only the people against are heard because they might scream the loudest, excluding the people for it.

5. Discussion

This chapter will dive deeper into the findings, what they mean, and how they fit into the larger context of scientific debates. The structure is as follows: first, in [subchapter 5.1](#), the results will be interpreted in order to answer the research questions; this subchapter handles each research question individually. The same subchapter will also go over the implications of the findings and compare the findings of this study with previous studies and findings. The following [subchapter 5.2](#) contains a reflection on the conducted research as well as my positionality as a researcher, this is then followed by recommendations for the practical implementation and suggested further research in [subchapter 5.3](#), based on the findings and limitations of this research.

5.1 Answering the Research Questions

In Europe, the climate crisis is at our doorstep, and for many countries, it has already crossed it (Eckstein et al., 2021). During the seven months of writing this thesis, many alarming reports have come out, one of which is the Intergovernmental Panel on Climate Change's Sixth Assessment Report (AR6), of which the first part came out in August of 2021 and the second part in February of 2022 (IPCC, 2021; IPCC, 2022a). In this report, the IPCC stated that climate change has effects beyond what humans can cope with. Therefore, they call for swift action to keep below 1.5°C. To add pressure for people to act, IPCC had a press release in April 2022 to call people to action, with the title: "The evidence is clear: the time for action is now. We can halve emissions by 2030.". Although they praise some of the steps already taken, they also warn: "Without immediate and deep emissions reductions across all sectors, limiting global warming to 1.5°C is beyond reach." (IPCC, 2022c, para. 1). The IPCC reports show how crucial it is we act now and in a big way, if we want to avoid the worst of the climate change impacts. Various ideas exist on the approach that should be taken to dampen the effects of climate change. One of those approaches is transformative change, which can set into motion system changes toward more sustainable ways of living. However, the issue with the concept of transformative change is that it is ambiguous in meaning; this allows for many different conceptualisations all under the same name, diminishing the revolutionary character of transformative change (Blythe et al., 2018). For this reason, it is of value to look into the different conceptualisations of transformative change within a policy document to discover the conceptualisation and discourse of the concept for those policymakers. This research looked at the European Green Deal (EGD), advertised as the most ambitious climate policy of the European Union (EU); it plays a crucial role in dampening the effects of climate change. Therefore, a complete understanding of how transformative change is seen and used was useful to know the direction of the EGD and hold the EU accountable for the correct implementation of the objectives and strategies. To better understand this, the transformative change discourse of the EGD and how it is translated into the proposed strategies of the EGD was researched. Additionally, the justifications for the choices made in the EGD were also investigated.

RQ1: The Representation and Performance of Transformative Change

This section is about the first research question: *How is the concept of transformative change represented and performed in the European Green Deal?* The objective of this research question was to find out what the European Union considered transformative and how this was reflected in the European Green Deal. To reach this objective, I conducted a critical discourse analysis of the EGD, focusing on what discourse of transformative change was present in the EGD; the words. The analysis found that the EGD corresponds with all seven discourses from the analytical framework in some way. These discourses are research and development, innovation systems, socio-technical transitions, transformative social practice, social-ecological transition, sustainability pathways, and systemic transformation. There is no one fully dominant discourse, this reflects Foucault's theory that there is constant competition among discourses to gain influence (Sharp & Richardson, 2001). Overall, the discourses that fit best seem to be *innovation systems* and *socio-technical transitions*. These discourses indicate that the constructed reality and hegemonic discourse of the EGD is one of technology, innovation, and market forces. However, there is also a social justice aspect in the EGD that matches the *sustainability pathways* discourse. This social justice aspect was mainly present in the Climate Pact and Just Transition Mechanism. That being said, the other aspects of the *sustainability pathways* discourse, such as the plural pathways and the idea that everyone experiences things differently, are not clearly reflected within the EGD. Furthermore, there also is a component of environmental protection present in the EGD, which matches with *social-ecological transition*. Although this is not the complete picture of the *social-ecological transition*, it does show some consideration of the importance of nature and ecosystems. Even though all discourses were present somehow, not all were represented equally. For example, the *transformative social practice* discourse and the *systemic change* discourse have a few similarities with the EGD, but overall, there is no strong representation. Overall, the representation of transformative change and the hegemonic discourse in the EGD is one of technical innovations that try to incorporate social aspects.

These findings show that the representation of transformative change is more on the technical side of the transformative change discourses, as it is most in line with the *innovation systems* and *socio-technical transition* discourses. It is argued that in order to fix the climate issue, we should move away from focusing only on technical fixes (Vogel & O'Brien, 2021). The technical fixes that play an important role in the *innovation systems* and *socio-technical transition* discourses only solve the surface issues but do not solve the underlying issues of power relations, which according to some scholars is crucial to reducing the effects of climate change (e.g. Brand, 2016; O'Brien, 2018; Vogel & O'Brien, 2021). Therefore, this could imply that the EGD is not radical enough to set the changes into motion needed to reduce the effects of climate change and thus need to do more (Koch, 2018; Pianta & Lucchese, 2020). The findings add to a more extensive understanding of the EGD and the EU in general, specifically, its construction of reality, its discourse structuration, and how it sees transformative change, which can be an important starting point for others who want to assess the discourse of the EU critically.

Other research on the EU discourse in general and the EGD has also been conducted. Ossewaarde and Ossewaarde-Lowtoo (2020) look at where the EGD discourse fits in between green growth and degrowth. They argue that the EGD keeps up the capitalistic green growth

and “oligarchical power structures” (Ossewaarde & Ossewaarde-Lowtoot, 2020, p.5), similar to my findings. They also criticise the European Commission for perpetuating “the green growth discourse by endorsing and reinforcing the traditional vision of the industrial society” (p.6). Also, in line with my findings, Ossewaarde and Ossewaarde-Lowtoot (2020) acknowledge that the EU moves away from this traditional green growth discourse through more just and inclusive discourse. Eckert and Kovalevska (2021) argue similarly that the EGD’s language perpetuates the current neoliberal discourse, excluding other ideas, something I have also found. Furthermore, Stegemann and Ossewaarde (2018) argue that green growth is the hegemonic discourse in the EU.

Another way to approach how the EU looks at the climate crisis is weak versus strong sustainability theory. The thought behind this theory is that policy around sustainability (which is often linked to the climate crisis) can be categorised as weak or strong in its approach to sustainability. Weak sustainability has already briefly been mentioned in [chapter 1](#). It is the idea that natural capital can be exchanged for other types of capital (e.g. financial) (Gutés, 1996). Therefore, weak sustainability sees technological innovation and financial compensation as solutions to environmental issues. Conversely, when it comes to strong sustainability, natural capital is not seen as interchangeable with other types of capital (Ayres et al., 2001). Therefore, the solution to environmental issues is preserving the ecosystems and maintaining natural capital (Ayres et al., 2001). Through my findings, the EGD fits more with weak, rather than strong, sustainability. The whole idea of the EGD is that we can keep using resources, but now they are decoupled from environmental degradation. This decoupling is not because we preserve the whole environment but because we can compensate for damage through technology and economic compensation, for example, decarbonising energy-intensive industries instead of scaling down production. The article by Colombo et al. (2019) argues that the EU has a weak sustainability position regarding the concept of eco-innovations. There is little research on whether the EGD has a weak or strong sustainability position, but there are articles that indirectly mention it. For example, Eckert & Kovalevska (2021) are critical of the use of sustainability in the EGD, saying that the current sustainability discourse will lead to environmental degradation in the future. The reason for this, according to Eckert & Kovalevska (2021), is that the current focus of the EGD on economic growth and the strategies that follow are thought of as unsustainable by the epistemic community. The fact that the EU acts as if the natural capital is infinite when it is not is also criticised (Eckert & Kovalevska, 2021). These are both characteristics of sustainability that fit better with weak sustainability. Samper et al. (2021) criticise the EGD for seeing the market as a ‘catch-all solution’, proposing a new Green Deal where environmental degradation is not seen as market failure. Again, despite weak and strong sustainability not explicitly being mentioned, it is still implied that the EGD has a weak sustainability discourse. Therefore I argue that the EGD follows a weak sustainability approach to solving climate change and environmental degradation.

A concept related to the previous debate and the EGD is natural capital (or nature’s capital). This concept is at the core of the weak versus strong sustainability debate. However, there are critiques of this concept. The main critique is that it fits nature into the neoliberal systems of market forces and thus its hegemonic power. Natural capital can be defined as the stock of natural resources (Guerry et al., 2015). The term ‘natural capital’ is also present in the EGD as I have already spoken about the section on *social-ecological transition* in [subchapter](#)

[4.1.](#) Washington (2020) warns that the concept of natural capital (and ecosystem services, which is also present in the EGD) does not look into ‘benefits to nature’, meaning that the environment will degrade. Furthermore, natural capital does not allow for ecojustice, which is “justice for non-human nature” (Washington & Maloney, 2020, p.5). To Washington (2020), social justice and ecojustice are intertwined and therefore cannot exist without each other, this means that strategies that do not allow ecojustice also do not allow social justice. Washington and Maloney (2020) elaborate on this lack of ecojustice, saying that through concepts such as natural capital, the current neoliberal system and anthropocentrism are kept in place, causing us to go beyond the limits of sustainability. According to Washington and Maloney (2020), if we want to stay within the limits, we need to move away from these terms and constant economic growth towards a steady-state economy with low resource use on a sustainable scale. The concept of natural capital is not mentioned often in the EGD (only three times). Nevertheless, it still keeps up the hegemonic discourse and perspective of nature as a good, a commodity that can be given a monetary value. Alone, this would not say much about the EGD but combined with the general focus on markets and the weak sustainability, it all ties together. To show the EGD playing out within the current system adding the EGD’s technical and economic discourse around transformative change.

When it comes to solutions to the climate crisis, a common discourse is green growth or the green economy. However, critiques exist around green growth for not having the results it advocates (Wanner, 2015; Stegemann & Ossewaarde, 2018). The green growth discourse fits well with the weak sustainability discourse, as green growth wants to decouple resource use from environmental degradation (Wanner, 2015). This decoupling is often criticised for not solving but rather worsening the environmental and climate issues (Wanner, 2015). The findings of this research have shown that the idea of green growth is present in the EGD; ‘green economy’ is named, and the EGD also talks about a decoupling between resource use and environmental degradation. Furthermore, the *socio-technical transition* discourse has strong ties to the green growth discourse, and the findings have shown that the *socio-technical transition* discourse is very much present in the EGD. Stegemann and Ossewaarde (2018) criticise the EU in general for its use of green growth, arguing that it is a myth kept up by the current EU discourse. Furthermore, they argue that the EU’s green growth is focused more on satisfying economic and geopolitical objectives than it is focused on environmental justice (Stegemann & Ossewaarde, 2018). When it comes to the EGD specifically, Ossewaarde and Ossewaarde-Lowtoo (2020) argue that the green growth discourse in the EGD is not entirely similar to the ‘general’ green growth discourse. Although the EGD still has a strong focus on combining growth and environmental protection, three things set them apart; it acknowledges the importance of ecosystems, it acknowledges some of the downfalls of industries, and it wants the transition to be inclusive (Ossewaarde & Ossewaarde-Lowtoo, 2020). These insights show the potential for the EGD to move away from the ‘myth’ of green growth. That being said, these three things are focused on words; the EU says ecosystems are important, that industry has adverse effects, and that it wants to be more inclusive, again there is potential in the language. The real question is whether the actions match these words. As will be explained in the next section, there seems to be a disconnect between words and actions, especially regarding the importance of ecosystems. When it comes to the actions, the green growth discourse does prevail in the EGD (Ossewaarde & Ossewaarde-Lowtoo, 2020). Green growth is at the core of the

EGD and the EU's hegemonic discourse and is seemingly one of the reasons why it is not as transformative as it could be. As Ossewaarde and Ossewaarde-Lowtoo (2020) argued, the EGD does mention the importance of ecosystems. However, there is no real strategy to show for this. Most of the conservation is set within the market system by commodifying nature. By moving away from green growth, the focus could become less on markets, making room for nature conservation that protects nature regardless of its 'value'. Although green growth is a step towards more sustainability, compared to the current system, if the EU wants to achieve its goals, it has to move away from green growth and growth in general.

RQ2: Translating Discourse into Strategies

The representation of transformative change paints a certain picture. For the second research question, the aim was to see how words turn into proposed actions by answering the question: *How does the representation of transformative change in the European Green Deal translate into the proposed strategies in the European Green Deal?* To address this question, I again conducted a critical discourse analysis of the EGD, this time focused on the proposed strategies. The proposed strategies were compared to the seven discourses established from the literature review on different views around transformative change (see [subchapter 2.5](#)), namely, research and development, innovation systems, socio-technical transitions, transformative social practice social-ecological transition, sustainability pathways, and systemic transformation. The main findings of this research question are that there is overlap with all seven discourses. However, some strategies only have potential overlap. Many of the strategies proposed within the EGD are based on technological innovation and market-based solutions. This aligns with the hegemonic discourse of the EU and with the strategies of the *innovation systems* discourse and the *socio-technical transitions* discourse. The need for innovations and technical solutions is present throughout the document; a subchapter is dedicated to mobilising innovation. In Figure 2, this is visualised as encompassing all the other EGD chapters. Furthermore, there is some overlap with the *sustainability pathways* discourse through the strategies proposed in the JTM and Climate Pact.

The discourses of *social-ecological transition* and *systemic transformation* have the least overlap. There are no strategies in the EGD that specifically match these discourses, though there are a few that have potential. For *social-ecological transition*, the strategy of using more nature-based solutions has potential if it were also to integrate a shift in how we see nature. When it comes to *systemic transformation*, the strategy to promote citizens' assemblies can potentially shift the current representative democratic system towards a more direct democratic system. Similarly to what was found in the first research question, there seems to be a better match with the strategies on the technical side, compared to the more social side, with the exception of the social justice part of the *sustainability pathways*. For all but one of the discourses of transformative change in the EGD, some strategies have the potential to match. The one discourse that does not have a strategy that matches is the *systemic transformation* discourse. Within the EGD, there are mentions of structural change, a concept often associates with *systemic transformations*. However, there are no clear strategies to achieve these structural changes; they are just supposed to happen. There is a big gap between words and actions when it comes to *the socio-ecological transition*. The EGD mentions that the value of protecting nature should be increased, but there are no strategies proposed that could make this added

value happen. There seems to be the best match between the representation and proposed strategies of the *socio-technical transition* and *innovation systems* discourses.

These findings show a gap between discourses and the strategies regarding transformative change in the EGD, which shows a general mismatch between the words and actions of the Commission for which they should be held accountable. Acknowledging the presence of this gap can help pinpoint where the EU needs to improve to reach the legally binding goals sets in the Climate Law. Furthermore, knowing these gaps makes it easier to address the EU on these specific questions and hold it accountable.

Samper et al. (2021) also argue that there is a gap. They looked at two different ideas of Green New Deals (GND 1.0 and GND 2.0). The GND 1.0 can be compared with weak sustainability in that it looks for solutions in technology and markets. GND 2.0, on the other hand, sees the solutions to climate change in changing the current power structures (Samper et al., 2021). Samper et al. (2021) argue that although the EGD follows the GND 2.0 in words when it comes to the actions, the EGD follows GND 1.0, thus creating a gap. Storm (2020) criticises the strategies in the EGD for not being ambitious enough, acknowledging that climate policy is controversial but that the EGD is not doing ‘what is politically possible’.

RQ3: Justifying and Legitimising Strategies

The purpose of the third research question was to identify how the European Commission (through the EGD) and EU employees justify the choices made in the EGD and build legitimacy through these justifications by answering: *If there are mismatches between the discourses and proposed strategies, how does the European Green Deal justify and construct the legitimacy of its strategy for transformative change?* This was achieved through interviews with people working at European Commission and European Parliament, which focused on the reasons behind the choices made in the European Green Deal. The critical discourse analysis of the interviews and the EGD regarding the justifications found six different discourses:

- Alternatives are worse
- Be realistic
- Certain things are needed
- Doing the best we can
- Role of the EU
- We are in the hands of others

Most justifications fell into the ‘doing the best we can’ discourse. Overlap between the different discourses is present, and one discourse does not necessarily exclude the other. Although all justifications have their own unique components, there does seem to be a general message coming from all of them. The primary justification seems to frame the EU as being sidelined most of the time, which goes against the other frame of the EU as one of the most ambitious leaders (European Investment Bank, 2021; European Council, 2021). The reality construction is that the EU has been a market for a long time, and capitalism is the system we are in, so we should function within this system.

These findings show that although the EU frames itself as a climate leader and fills this frame to some extent (Eckert & Kovalevska, 2021). At the same time, it is vulnerable to the influences from outside. Instead of stepping outside that system and discovering more possibilities, it is guided by what the current systems see as possible. Furthermore, the Commission

seems to emphasise or downplay its importance based on what suits its narrative best. Being aware of these justifications can make it easier for others to spot them and call out the EU for any gaps that might be present between its words and actions.

An interesting issue that comes up from this research and, more particularly, this research question is how different people experience things in different ways. This difference in experiences comes down to the idea that reality is constructed, briefly discussed in [subchapter 2.4](#). In short, everyone experiences things differently based on their previous experiences, upbringing, culture, and other external influences. The realities are often most notable in controversial issues, where many different solutions heavily impact lives, such as climate change. The way the CEO of a steel manufacturer looks at climate change and its solutions is vastly different compared to a farmer in Romania or an environmental science student. This research also aimed to investigate the EU's reality when solving climate change. The *be realistic* justification and the EGD in general show a certain constructed reality of the EU. A reality where degrowth is unrealistic but decoupling resources from environmental degradation is not. There are plenty of people for whom the opposite is their reality, where degrowth is the solution and green growth is a 'myth' (Sandberg et al., 2019; Stegemann & Ossewaarde, 2018). Ossewaarde and Ossewaarde-Lowtoo (2020) see the reality of the EGD as a traditional one: "a capitalist political-economic establishment that consists of the traditional oligarchical forces behind brown growth" (p.4). Furthermore, Eckert and Kovalevska (2021) argue that the continuous use of certain words and phrases in the EGD is an attempt to build a "particular social reality" (p.7), a hegemonic discourse of economic growth.

Considering all the different realities is crucial if the EU wants to make the EGD work and currently the EU does not focus enough on those different realities (Ossewaarde & Ossewaarde-Lowtoo, 2020; Eckert & Kovalevska, 2021). This consideration is something that the *sustainability pathways* discourse acknowledges and highlights the importance of when it comes to climate policy (Patterson et al., 2017). The importance of public support was often mentioned in the interviews (e.g. see *we are in the hands of others*, [subchapter 4.3](#)), and it was used to justify why the European Commission did not do more. When people feel heard and considered, they could also be more open to more ambitious policies (Arvai, 2003; Klain et al., 2017; Perlaviciute & Squintani, 2020). For example, farmers in rural areas believe that Brussels ignores them (Mamonova & Franquesa, 2019). Nevertheless, at the same time, they want to do more. To quote an interviewee working at the directorate-general for agriculture and rural development (interviewee 7): "I am 100% sure. I think you talk to farmers. I think they want to change, and I think this is why a lot of them have already changed". By listening to them and their reality, more 'realistic' policies can come about, not just based on the EU reality but also the local reality. To me, one of the adverse effects of globalisation is the idea that there is one lived reality based on the reality of middle-class Western European men. This leaves out all the other realities of the billions of people on this planet and the hundreds of millions in Europe. The realisation that much of what we do in Western Europe is influenced by our colonial past is becoming more prevalent. Part of this colonial thinking is the idea of one true reality (Banerjee & Linstead, 2001). Therefore, acknowledging our colonial past and how that shaped our current way of thinking could allow us to move away from the idea of one true reality found through science. Instead, we should move toward the idea of multiple realities and the importance of considering them all, even (or especially) if you strongly disagree. Latour (2011)

uses the concepts of multiculturalism and multinaturalism for this debate. Multiculturalism is the idea that there is one objective truth and reality (nature) that can be found through science, and there are different cultures with different interpretations of this reality. Multinaturalism, on the other hand, is about the idea that there is no one objective truth and reality; instead, everyone experiences a different reality (nature). Overall, the different realities need to be allowed more space in the EGD. The inclusive components of the EGD (e.g. JTM) have the potential for more realities to be taken seriously and, therefore, a more just transition to happen.

An essential aspect of this research question is about legitimacy and the construction of legitimacy. Therefore, to dive deeper into the results, this paragraph will speak on legitimacy and its importance in policymaking, making the policies easier to implement (Akerlof, 2017). Bernstein (2011, p.20) defines legitimacy as “the acceptance and justification of a shared rule by a community”. Acceptance is about giving consent to those who “claim they have a right to be obeyed”, and justification is about the norms at the core of this authority relationship (Bernstein, 2011, p.20). According to Eckersley (2007), legitimacy can be attained through the appropriateness of the decision, expertise, fair decision making (input legitimacy), or effectiveness of the policies (output legitimacy). More specifically, Turnhout et al. (2015) argue that due to the democratic deficit of the EU (as explained in [chapter 1](#)), the EU constructs legitimacy differently, namely in three ways. First through the idea of the principle of subsidiarity, which is a part of EU law stating that only the EU should act on an issue if the national governments cannot do it more efficiently. Second, by focusing on output legitimacy (making sure the policy is effective) rather than input legitimacy (fairness of decision making). Third, the EU sees participation as something that can be achieved in public fora, not just in parliament. The findings of this research show that the EGD follows these three to some extent. Especially the idea that participation (and therefore democracy) is not achieved by changing the current parliamentary system; rather, they can just increase ways for civilians to participate. An example of this finding is the Climate Pact, where the EU aims to involve more people in decision-making and mentions stakeholder dialogues in the EGD. However, there is no mention of making the EU institution more democratic by changing its system. The justification *we are in the hands of others* shows that this idea is also present in the EGD, the idea that if we give people a platform, the EU does not need to work on our democratic deficit. The idea of output over input legitimacy can be seen through this. Not focusing on increasing the democratic functioning of the EU reduces the fairness of decision making and, therefore, the input legitimacy. Furthermore, *the role of the EU*, is in line with the subsidiarity principle; it would make more sense for others (such as the Member States) to fulfil this role rather than the EU, for example, with taxes or behavioural changes. Overall, the justifications found in this research seem to align with previous findings. Something that does seem to stick out more in the findings of this research that is not in Turnhout et al. (2015) is the idea of the EU putting itself outside of the issues at times or scaling down its power and influence in climate policy. This can be seen best in the *role of the EU*, and *we are in the hands of others* justifications.

Main Research Question

This thesis's objective was to find out any mismatches between discourse and strategies within the EGD and see how those were justified. This was done by answering the main research

question: *How do the discourses and proposed strategies of transformative change in the European Green Deal differ, and how are any inconsistencies constructed and legitimised?* The discourses and proposed strategies of transformative change in the EGD differ, mainly when it comes to the more social and ecological components. That is where the words seem more ambitious and radical compared to the proposed strategies. Many justifications are given for the choices in the EGD and thus for these gaps. However, the idea seems to be that we live in a certain system and that the EU cannot change that alone; there are others that need to come along for the system to change. Until then, the EU should function within the system we have. All of this shows the potential for the EGD to be more transformative based on the discourses present. This thesis shows that the most ambitious climate policies of the EU still need some work to achieve the potential it holds. This research has also shown what the hegemonic discourse of the EGD is, one of technical innovations, markets and social justice. Knowing this hegemonic discourse can help better understand the choices being made by the EU and gain more understanding of those choices. When it comes to the justifications, it shows many obstacles for the EU to overcome still in this crisis. Furthermore, it also uncovered that the EU sometimes changes the narrative of its role in this crisis. This finding can shed more light on how the EU legitimises its actions in the EGD and beyond. With the many crises that seem to be happening at the moment, understanding the narrative of the EU during crises could be crucial in understanding them better. Overall, this understanding can result in better reactions to the actions of the EU. Additionally, this can also help hold them accountable; understanding its narrative can help better question its underlying values and formulate counter-narratives.

The effects climate change has and will have on all lives everywhere can be considered a crisis, and I have called it a climate crisis in this research. The problem with this crisis is that its effects are only showing slowly, piece by piece, shifting our norms. In 1962, Rachel Carson wrote *Silent Spring*, a book about the deterioration of bird populations due to the DDT (dichloro-diphenyl-trichloroethane) pesticide. The birds had been declining for a while, but apparently it went mostly unnoticed. Maybe people got used to it over time until *Silent Spring* was released. The outrage that ensued led to the ban on DDT, and bird populations increased again, and luckily, the effect was not irreversible. Nowadays, similar things are happening; each year it gets warmer and more natural disasters happen but it seems like in the Western European countries, which have the most power in the EU, we adapt, maybe by an air condition unit, and move on. Every record-breaking heat, rain, or drought shifts our norms until the effects are too strong to be ignored. Then and only then does it seem like real action is taken. The importance of the market and economic growth is present in the EGD, the picture is painted that we cannot go without the market and economic growth, but is this the truth? We do not know. We do know that there seems to be a sense of endless optimism (what Koch (2019) calls 'irrational optimism') in the West; we will figure it out; we will find new solutions; it will not be that bad (Arvesen et al., 2011; Gardezi & Arbuckle, 2018; DeFries et al., 2019).

During the writing of this thesis, an event happened that was preceded by the same optimistic way of thinking; the escalation of the war in Ukraine. The war in Ukraine has shown that we are way too optimistic, and although the response has been swift, lives might have been saved if we listened to the most vulnerable who have been warning us about this, in this case, Ukraine and the Baltic countries (Ciesnik, 2021; Brennan, 2022). There were plenty of warnings, also from United States officials. Still, it came as a shock when the invasion actually

happened (Gaouette, 2021). At times it feels as if Western Europeans think that they are invincible. Besides the showcasing of Western European optimism, the war in Ukraine has had substantial effects on the European Union. Energy and food prices are soaring, and the EU wants to become more independent in both food and energy supply. When it comes to the energy supply, it could go either way; we could fast track the implementation of renewables or go back to even more polluting energy sources such as coal. Of course, the EU can also import from other countries, but these are often not countries the EU is keen to collaborate with. Times like these call for transformative change, and the EU's reaction to this crisis can be a preview of how the EU reacts to others crises, such as the climate crisis. That being said, the current collaboration with Russia and other countries shows that energy, and thus the economy, is above all. Immediately stopping the supply of Russian gas will have disastrous effects on daily life in many countries, so it makes sense that the EU is hesitant to stop. However, during negotiations in the first few days after the war escalated, countries tried to save their economies. Belgium wanted to continue the diamond trade, Italy wanted to continue the trade in luxury products, and even now, the Netherlands is doing little to freeze the assets of Russian oligarchs in de Zuidas. The economy is at the core of everything nowadays. The same is visible in the EGD, where the economy is also at the core.

The other price increase comes in food; Ukraine and Russia are the breadbasket of Europe and the world. To combat the price increase and any impending food shortages in Europe, the European Parliament has proposed for fallow land in Europe to be used to produce cereal. Due to the crisis at hand, the common rules in the CAP about sustainable agriculture will not apply. With the current state, the decision is understandable. However, it shows a lack of preparation for crises. This lack of preparation can also be seen in the EGD in the example of neonicotinoid in [subchapter 4.3](#) in the section on *doing the best we can*. Not only can this be seen as a lack of preparation for a crisis, but little was also done to prevent the crisis. Again, a parallel can be made with the climate crisis, where for years, barely anything was done to stop it. Globalisation has made the EU more and more dependent on imports, and this war has shown that even close countries cannot always be relied upon. All in all, many lessons can be learned from this war in general, and some of them can be applied to the climate crisis (e.g. energy independence, less international imports). The market and economy and how much the EU relies on unsustainable practices, not just environmental but also economic and political, is something that makes the EU vulnerable both in this war and in the climate crisis. The potential of transformative change in the EGD can help move away from these vulnerabilities, but to do that, the gaps between discourse and strategies need to be bridged. The EU seems to be closer than ever, so now more than ever is the time to take advantage and get things done that previously were thought impossible.

5.2 Reflection

All research has its strengths and limitations. In this subchapter, I will reflect on my research to highlight the aspects that added value to the outcome and the aspects that limited the outcome. This subchapter aims to provide a full picture of my research. The subchapter will first look at the methods used, followed by the methodology underlying my research. After that, the

theory will be reflected upon to evaluate its usefulness within this research. Finally, I will reflect on my positionality as a researcher and how that could have affected how I conducted the research and its outcome.

Methods

One of the strengths of this research is the diversity of interviewees that I was able to speak to. I spoke to seven European Commission members and two European Parliament (EP) employees. Of the EP employees, one was active in a radical left party and the other at a centre-right party. Although this does not cover the whole political spectrum, it does provide two (potentially) opposite views. Among the seven interviewees active at the European Commission, five different Directorate General (DG) were represented, ranging from the DG on climate action to the DG on agriculture and rural development to the DG on the EU internal market (see Appendix III for more details). This provided many different views and interests, which allowed for a wide range of justifications to be discovered.

A limitation that came with the interviews is that although the interviewees were speaking from their personal point of view, they might still have told me what they thought I wanted to hear. In qualitative research, this is referred to as a socially desirable response (SDR) (Börger, 2013). In short, SDR is a response that the interviewee perceives as fitting best with the social norms and will make the interviewee look good (DeMaio, 1984; Börger, 2013). According to Börger (2012), three criteria should be met for SDR to occur. First, the interviewee has to want to be socially accepted. Second, the interviewee must know the socially desirable option among all the responses. Lastly, the interview should not be anonymous (Börger, 2012). To relate to this study, the first criterion is difficult to assess as it goes to a deeply personal level and therefore I cannot with certainty say whether this applies to the interviewees. The second criterion about knowing the desirable response, is a bit easier. When it came to this interview, the interviewees had to know what I wanted to hear. As a student from Wageningen University, a widely known environmentally conscious university, studying forest and nature conservation, with interest in the EGD, it would be possible for them to know that I care for the environment. Thus shifting their responses to more environmentally conscious ones. Finally, the interview was not anonymous; I spoke to the interviewees online, often with a video connection. Therefore, following Börger (2012), it can be assumed that at least some of the interviewees gave socially desirable responses. The possibility exists that I did not get the full picture of what they thought, creating a certain narrative they thought I would like or that would be the most socially desirable and politically correct. However, since I wanted to find out about the justifications, even if they were not the real or complete ones, they were the ones that the interviewees were willing to tell. Therefore, it still shows the justification that they are willing to tell the public, which I was looking for.

The primary analysis method was coding, which came with a few limitations. Mainly, at times I found it challenging to analyse the data. The main reason was probably too many codes; I coded everything I thought was interesting, making it harder to analyse and get through to the important things. This could have made the results less concise and to the point and made the data analysis portion unnecessarily big. On the other hand, combined with the fact that I went over the document multiple times, I did end up with a complete picture of the EGD. That being said, the amount of data could have prevented a concise and complete picture in the final

report. Next time I use coding, I will try to focus more on keeping the main and side issues separate to make the outcome of the analysis more concise.

Furthermore, the choice was made to use the seven discourses from the literature review to compare them to EGD. This ended up with findings on how well (or not) the EGD matched with those discourses. Although this provided a nicely structured analysis and report, it also has some downsides. Mainly, the discourse or ideas that did not fit with any of the predetermined discourses were not picked upon and thus not further analysed. This might have led to some interesting ideas being missed out upon. Maybe new ideas that could spark new conceptualisations of transformative change were overlooked. However, the seven discourses had a broad focus, so most of the ideas were considered. Nevertheless, it is essential to acknowledge this limitation.

Another limitation is that I could have been clearer on all the concepts I used (e.g. social, technical, innovation). Researching an ambiguous concept such as transformative change made me extra aware of all the different interpretations people can have of the same word. I tried to stay consistent in what meaning I had for those words, however, I never fully defined them. This could have made it unclear for the reader and myself during the data analysis. Furthermore, having not clearly defined concepts allows for more subjectivity in the data analysis and discussion. However, strictly delineating what each concept means is not always the answer. As explained above, keeping within a certain structure (such as the seven discourses or defining all words) can also lead to less openness to different ideas. Nonetheless, the next time I conduct research, I will be clearer about what I mean by certain key concepts, even if it is just for myself to provide more consistency and transparency.

Something else that I think could have limited my research is that it is hard to give a complete picture of the EGD. Certain things will always have to be left out to make it more concise. Although I tried to give a complete picture of the EGD, and I think I managed, the data analysis only used the codes most relevant to answering the research question. The selection process, as explained in [subchapter 3.2](#), was based on the criteria set by Hennink et al. (2020). This could have shown a certain picture of the EGD not reflecting the EGD in its full. As I will speak on later, my positionality has probably influenced these choices to a certain extent. Reading the EGD would provide a more nuanced view of it in addition to reading this research.

A similar limitation is that I only focused on the EGD, but it might have also been interesting to look at other documents that supplement the EGD or public communications of the EU to triangulate my findings. For example, the advertisements sponsored by the EU for meat and dairy products, what does that say about the EU discourse? Or the fact that the EGD is advertised for during the UEFA Champions League.

Methodology

When it comes to the methodology of this research, I think it is important for me to reflect on the underlying ontologies and epistemologies of this research to provide context to the results and discussion. In short, ontology is about how reality is perceived, and epistemology is about how to achieve knowledge (Bernard, 2017). Although I am still navigating through all the different types of ontologies, the one that fits me best is social constructionism, this is an ontology I have already discussed in the research (see [subchapter 2.4](#)). To me, there is no one true reality.

Instead, everyone's lived reality is different based on external factors, such as geographical location, upbringing, and education. Certain realities are closer to your reality, making it easier to relate, however, there also exist realities that are so far removed from yours that it can be hard to believe. As has been visible throughout this research, I believe that each one of these realities should be heard. We all have our reasons to believe something to be real, and just to put those reasons aside because you cannot relate is, in my opinion, not the way to solve the current issues at hand. I do think there are certain 'truths' that cannot be ignored; gravity exists, and so does climate change. However, this does not mean that I will immediately think a climate denier is wrong. Often, something is underlying this denial, whether they are afraid of change, the concept is too big to comprehend, or it is just scary and hard to acknowledge. To me, constructionism makes it easier to put yourself in someone's shoes because you know that they can have a very different outlook on life, which is still valid. Trying to convince someone that there is this one reality that they should also believe will not make them believe you. Instead, they might feel attacked and retaliate by putting their foot down even more. Listening to people, finding common ground, and understanding where they are coming from is what I believe to be the most productive way of communication, which is deeply rooted in the constructionism ontology.

The way someone believes to know things, epistemology, is of course related to the way someone looks at reality. An epistemology that sees reality as constructed is interpretivism, this is also the epistemology of my research. Often interpretivism is used interchangeably with constructivism and is also regarded as an ontology. According to Bernard (2017), interpretivism is about understanding why people make certain choices rather than explaining those choices as is the norm with positivism. Interpretivism is also about acknowledging that the researcher is part of the research and therefore influences it. Researchers have a certain reality and cannot fully be objective (Myers, 2019). This is also the downfall of interpretivism as it is subjective in nature, something I will elaborate on in the section on my positionality in this subchapter.

Theory

The main strength of my research comes from the exploration of the concept of transformative change. Although the aim of this thesis was never to define the concept, it was essential to understand the different views. A wide range of transformative change discourses was presented and explained through the literature review. Such an overview allows for an ambiguous concept such as transformative change to be more accurately depicted in all its different interpretations. Furthermore, this depiction made the discourse analysis more structured and related to existing findings, which substantiated the findings.

One of the limitations of my focus on transformative change theory is that it is so ambiguous as a concept. As much as I have tried to show all sides, there likely are other ideas that I have not included. Furthermore, focusing on all those different ideas made it harder for me, and probably also the reader, to know what I meant when I talked about transformative change in general. I tried my best to clarify what view of transformative change I was coming from to give the necessary context. In addition, by making my review very broad, it left less room to go into detail on each of the discourses I have found, possibly making my analysis less precise and missing certain statements that would have fit well with one of the seven discourses. In the

end, I made a choice for a broad overview to make the analysis cover most of the views whilst simultaneously keeping it concise and comprehensible, which, to me, worked.

Positionality

When it comes to doing research, especially qualitative research, it is important to reflect on your positionality as a researcher. To many scientists, objectivity is crucial to good research, however, complete objectivity is not a reachable goal (Darwin Holmes, 2020). The place you grew up, the things you have experienced, the people around you, your education and teachers, all have had an influence on the things you feel and do. Despite full objectivity not being an obtainable goal, it is still important to consider and reflect on your choices and the underlying values. In general, I care a lot about the state of the environment and the effects of climate change and feel a personal connection and a need to solve this issue. This environmental consideration is something that I was brought up with as a daughter of a father that was an old school hippy in the seventies and a mother that has been vegetarian since she was eighteen. Furthermore, I take an activist stance when it comes to climate change fueled by outrage and optimism, two strong emotions that at times can be hard to control and keep inside. This is my passion and drive, and I am very proud of that, however, it does mean that I am very involved and have strong opinions on these issues and what should or should not happen, meaning full objectivity was hard to reach.

The topic for this research was chosen based on personal interest and a feeling of connection. When it comes to the different discourses around transformative change, I felt more connected with the ideas and solutions on the more social side than the technical side. Although I was aware of this and tried to keep myself from critically analysing all discourse the same way, there is a possibility that my thinking was affected by this. Furthermore, the way I look at and conduct research has been shaped by the western scientific ontology and epistemology and my upbringing in a Western European country. Despite my awareness of this and other ontologies and epistemologies existing, my way of thinking, what I find important, and how I conduct research and interpret the validity of my and others' data are influenced by these Western traditions.

Finally, my own experience and subjectivity inevitably shaped my perception of the data. For example, I might have missed specific theories or ways of thinking as they differ too much from my thinking. I might have also dismissed specific theories laid out by others or unfairly emphasised others. However, I tried to critically reflect on my way of thinking to hopefully keep myself from making these mistakes. Despite constant reflection and critical thinking, I will never achieve complete objectivity, and even this statement is not objective as we cannot describe reality in an objective manner (Dubois, 2015, as cited in Holmes, 2020). Instead, I strived for transparency about my thinking and choices. I provided many quotes to show the specific text on which my claims are based and related my claims to literature to substantiate them.

5.3 Recommendations

The following subchapter contains the recommendations that have arisen from the findings of this research. First, recommendations on the practical implementation of the findings are given;

what are the practical steps policymakers and others can take. Second are recommendations for further research following the findings to dive deeper into the subject of transformative change in the European Union.

Practical Implementation

Following the findings, a few recommendations can be made to improve on the issues that have arisen. First of all, a recommendation for the three main EU institutions (Commission, Council, Parliament) is to be more transparent about the intentions and ideas behind decisions. The EGD is a breakthrough document that tries to solve the climate crisis with a synergetic approach, and its ambitious nature should not be ignored. However, the findings of this research have shown some gaps between words and actions. It could help the EU build more legitimacy and accountability if it were more transparent. The institutions, and mainly the European Commission, as it represents EU interests the most, should acknowledge shortcomings and compromises made in the EGD to show a complete picture of the EGD. This transparency should be within institutions and (and most importantly) towards citizens and organisations, e.g. Greenpeace or EU-observer (a journalistic and opinion website focused on Brussel politics). Not being fully transparent about the decision process could decrease the democracy of the EU, as it would hinder the ability to criticise all the EU does. Being more transparent would not just be putting it on the Commission's website somewhere, but it should also be communicated clearly to the Parliament, journalists, and citizens. More transparency can help decrease the debate around a democratic deficit of the EU, giving them more legitimacy (Turnhout et al., 2015). Additionally, it could also lead to more understanding from EU citizens if they see where the EU is coming from. Furthermore, it might even add to people feeling heard more if they see the EU does take their ideas into consideration.

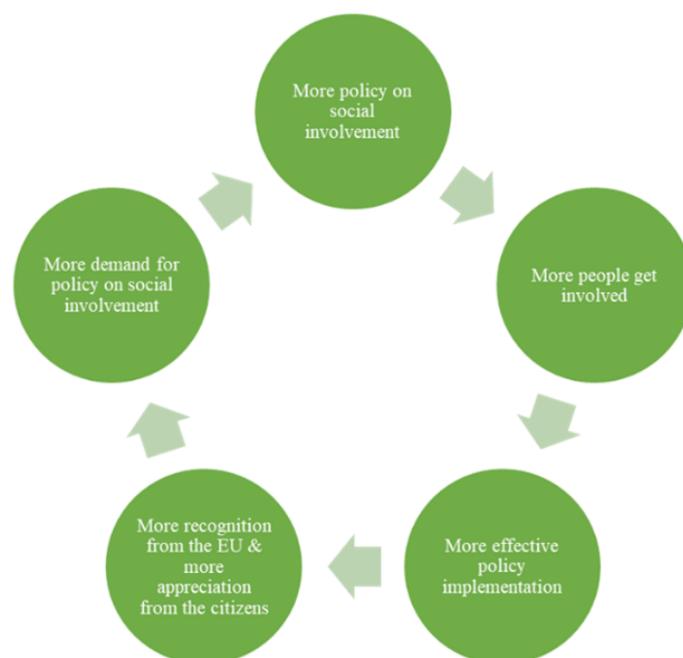
Building on this idea of transparency, another recommendation is to involve citizens actively. Of course, the Just Transition Mechanism and the Climate Pact already provide ample opportunity for this, but there have been critiques (Pianta & Lucchese, 2020; Sabato & Fronteddu, 2020) that it is not enough. There seems to be a consensus that public support is needed and can be an obstacle, as can be seen, for example, in the *we are in the hands of others* discourse in [subchapter 4.3](#), so to get more radical strategies through, we need more public support (Shaw, 2014). As discussed in [subchapter 5.1](#) about the construction of reality, there are many different views on the issue of climate change, and all of those should be heard; this is what makes climate policy so complex. Decisions will be made that upset people; jobs will disappear, consumer behaviour has to change (and people do not like to be told what to do), it will cost a lot of money, there will be many refugees that need shelter, and the list goes on of controversial decisions that need to be made. Something that might help soften the blow is having conversations, people need to feel heard (Shaw, 2014). And not just heard, their ideas should be considered, and implemented if possible. Many people are willing to change if it is not in their back garden (O'Neil, 2021). Listening to them and figuring out why they are against it might lead to new solutions and more understanding. Therefore, the recommendation for policymakers is to make policies that make it binding to hold meetings with affected citizens, not just presentations of plans already made but meetings throughout the whole process. Of course, this will make decision making harder and probably longer, but it can also make it more sustainable and effective. According to Sandover et al. (2021), citizens' assemblies can lead to

more democratic legitimacy, something that the EU lacks, according to some (e.g. Murdoch et al., 2018). Another benefit of citizens' assemblies is an increase in the political engagement of young people (Gershtenson et al., 2010). Of all EU citizens, young people (between 18-24 years of age) have the lowest turnout rate (European Parliament, 2019a). Vlerick (2020) also argues that because of the diversity of people deliberating in a citizens' assembly (when random sampling is added), they are more likely to consider more perspectives, concerns, and ideas when coming up with strategies. People deserved their concerns to be heard and to be considered. Members of the European Parliament (MEPs) are a bridge between the people and the other EU institutions as chosen representatives. They could talk to people on the ground and voice their concerns in parliament. Maybe this could even lead to more engagement from the citizens with the European Parliament, increasing the voter turnout, which in 2019 for the whole EU was at 51%, and for individual countries, 23% at the lowest (European Parliament, 2019b), in part leading to more democracy and representation. When it comes to the Commission and the Council, they need to do more to be present in EU countries and regions, especially those regions that feel unheard. In research conducted by Pew Research Center, Greece came out on top, with 80% of Greeks feeling that the EU does not understand the needs of its citizens (Pew Research Center, 2019). Although Greece has the highest percentage, with an average of 62%, this is an issue for the whole of the EU (Pew Research Center, 2019). The Commission tends to stick to Brussels, and this is often used as a critique of the EU, showing that they care equally about all Member States can help strengthen the EU. Not listening to other countries' concerns can make decision making easier but can also have negative consequences. An extreme case is Putin's war in Ukraine, which Baltic countries have warned about for years (Ciesnik, 2021; Brennan, 2022).

Furthermore, more citizen involvement also calls for a shift in the EU mindset towards a more environmentally conscious mindset. The start of the EU as a coal and energy union was often seen as technical and technocratic. However, it was started to avoid war, which is a rather social goal (with, of course, economic and technical components). Holding on to science and facts is a great start, and I am not advocating getting rid of them. Nevertheless, we know the science, we know what will happen if we do not act. Not all details, but the main line is clear. It is time to add the social component to something that already has a great start in the JTM and CP. This point plays in with the previous one and can become a virtuous cycle; a more social focus of EU institutions (mainly the Commission) can help involve more people through legislative pathways (see Figure 3). Involving more people can then show the EU its importance, which can lead to more legislation

Figure 3

Virtuous cycle of social involvement and effective policy implementation in the European Green Deal



and adjustments to any gaps that have arisen in previous legislation. Furthermore, there is the possibility that when more people get involved and appreciate it that they will demand it more and more from the EU institutions, adding to a more social focus within the EU institutions. Surveys from the Eurobarometer have shown that 93% of EU citizens see climate change as a serious issue (European Commission, 2021a). Additionally, 94% of EU citizens see protecting the environment as important (European Commission, 2020a). Therefore, with more social involvement, ideas of more climate action and environmental protection can get to the foreground and be discussed more.

The final recommendation for practical implementation is focused on the use of transformative change in the European Green Deal. As explained in the [subchapter 2.2](#), transformative change is an ambiguous concept, allowing governments and other institutions to use the concept however they want (Pelling, 2014; Ziervogel et al., 2016; Blythe et al., 2018). This can lead to the concept losing its initial meaning and potential for radical change (Blythe et al., 2018). Blythe et al. (2018) identified five risks that could come from the ambiguity of transformative change: the burden of change is shifted onto the most vulnerable; the concept can be used to justify business-as-usual; not enough attention to the social dimensions at play; the possibility of resistance to the transformation can be excluded; not enough attention to the power relations and politics of transformations. The European Commission is also vulnerable to these risks by using transformative change. To avoid these risks from playing out, the European Commission and the policy officers need to be aware of these risks and take steps to avoid them. For example, the Just Transition Mechanism provides an excellent opportunity to make sure the burden is not put onto the most vulnerable. Making sure the citizens' assemblies are put into practice can help take the social dimension into account more by working bottom-up. The citizens' assembly can also help give a voice to the resistance to the transformations instead of not listening and putting them aside. Lastly, the role of power and politics should be reflected upon throughout the whole process of transformations. Ignoring these fundamental aspects of transformations undermines the legitimacy of transformative change (Blythe et al., 2018). Therefore, to live up to the transformative potential, these things should be actively recognised, considered, discussed, and analysed.

Further Research

Based on the findings of this thesis, there are a few suggestions for further research on the topic of transformative change within the EU and EGD. First of all, it would be interesting for scholars familiar with the topics of transformative change or (un)conscious decision making to research the conscious and unconscious use of the concept of transformative change. Some EU employees said that they had never really heard of the concept or just used it as something to add to a speech. After explaining what the concept of transformative change entailed, I already noticed that they started using it in the interview, even though some said they had never used it beforehand. The Freudian theory around unconscious behaviour could be used to look at how EU employees work with the concept and how the unconscious associations they have with transformative change influence their work. Another theory that could be used by scholars to further elaborate on the findings in this thesis is how legitimacy can be achieved through various means, which was briefly touched upon in [subchapter 5.1](#). The knowledge from these theories can then be used to dive deeper into the justifications given by the EU and EU employees.

This thesis only investigated the EGD, but the EGD is just the starting point of many different policies, laws, and other documents. Further research could look at if transformative change is used there, how, and if it differs between different documents, for example, in the ‘Fit for 55’, the Circular Economy Action Plan, the Just Transition Mechanism, or the Climate Pact. Besides different representations of transformative change in different documents, researchers could also look into the different uses of the transformative change among institutions, both inter- and intra-institutional. Speaking with someone from the European Parliament representing *the Left* group, they were the only ones with a very clear idea of what the concept meant for them, so there clearly are differences between and within EU institutions. Investigating this could provide more understanding of the use of the concept and the implications.

As mentioned in the Reflection [subchapter \(5.2\)](#), the underlying values behind the discourses were only skimmed. Understanding and knowing the underlying values can give more insights into the decisions being made and the given justifications. It could also provide clearer distinctions and similarities between the different discourses by getting to the core of decision making. Therefore, it would be useful for scholars knowledgeable in underlying values, or maybe even the theory of basic human values, to further investigate the values underlying the EGD and EU in general. Furthermore, the research could be done on value-attitude-behaviour theory to see how the values have shaped the EGD and if there might be any attitude-behaviour gaps.

Finally, a lot is happening at the moment; the effects of climate change are showing more and more, even compared to months ago when the introduction was written. Furthermore, the war in Ukraine of the past eight years has escalated. Major events like these can have great consequences on policies, either making them more ambitious or going back to the older, often short-term saver, options. Therefore, it would be interesting for scholars to investigate how the EGD and its associated documents develop over time and with it the concept of transformative change. This is an important subject to investigate as policies change when discourses change faster than policy documents (Turnhout et al., 2015).

6. Conclusion

This thesis looked at the use of transformative change in the European Green Deal (EGD) and the justifications of the proposed strategies through a critical discourse analysis of the EGD and interviews with the European Commission and the European Parliament. This research aimed to answer the main question: *How do the discourses and proposed strategies of transformative change in the European Green Deal differ, and how are any inconsistencies constructed and legitimised?*. The main question was broken down into three sub-questions, to which I will provide the answers in this chapter.

The first sub-question was: *How is the concept of transformative change represented and performed in the European Green Deal?* The findings show that the EGD overlaps with all seven discourses from the literature review, however, it follows the *innovation systems* discourse for the most part and mainly the *socio-technical transition* discourse. These discourses were supplemented by a just and social transition component from the Just Transition Mechanism and a recognition of the importance of protecting ecosystems.

The second sub-question was: *How does the representation of transformative change in the European Green Deal translate into the proposed strategies in the European Green Deal?* From the research, it appeared that similar to the discourse around transformative change, the strategies were also most in line with the *innovation systems* and *socio-technical transition* discourses. However, where there was some overlap between the *social-ecological* discourse in words, there was no overlap in action. The same applied to the *systemic transformation* discourse. This shows some gaps in the translation from the representation of transformative change into the strategies.

The third and final sub-question was: *If there are mismatches between the discourses and proposed strategies, how does the European Green Deal construct the legitimacy of its strategy for transformative change?* To justify some of the mismatches and the strategies, European Union (EU) employees provide six different justifications: alternatives are worse; be realistic; certain things are needed; doing the best we can; role of the EU; we are in the hands of others. The overarching theme seems that the EU is vulnerable to external influences and guided by current systems and, therefore, unable to do more. The EU seems to emphasise or downplay its importance based on what suits its narrative best. Constructing legitimacy through the principle of subsidiarity, putting output legitimacy over input legitimacy, and focusing on participation through fora rather than the parliament.

To better understand the results and the implications of this research, scholars should dive deeper into the underlying values in the EGD and other EU documents, as well as how transformative change develops over time. Especially the justifications have shown that there is still a need for more democracy in parliament and more input legitimacy. Therefore, the EU should strive to be more democratic by increasing its accountability and transparency.

The findings in this research clarified the reality of the EU around climate policy and its justification which can provide support to people who want to hold the EU more accountable but might struggle to find how. Being able to name the constructed reality of the EU can make arguments stronger. With the democratic deficit often attributed to the EU, any knowledge of the working and thinking of the EU, such as the justification discourses, can help decrease this deficit and make the EU more democratic and transparent.

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Appendix I

Interview guide

Background information

What is your position within the EU?

What is, or has been, your role in the EGD?

How is your work affected by the EGD?

How they think the EU uses transformative change

Is transformative change an essential concept in the EGD? Please elaborate on your answer.

How do you think the EU uses transformative change in the EGD?

What do you think the implications are of how the EGD frames transformational change?

Does the view on transformative change of your DG/department differ from the view we just talked about? If so, how?

Does your view on transformative change differ from the view we just talked about? If so, how?

Strategies around achieving transformative change

What are the main strategies used or proposed by the EU to achieve transformational change?

What do you think of these strategies? Are they transformational enough? Are they missing anything important?

Is there anything in particular that hinders the fulfilment of the strategies outlined in the EGD?

How do they legitimise the decision made in the EGD?

How do you use transformational change in your daily work?

In what sectors of your department is transformational change most used?

How does your department use transformative change in those sectors?

What is the reasoning behind the approach to transformational change taken in the EGD?

Are there things you think could be improved in how the EU uses transformational change in the EGD?

Appendix II

Template mail interviews

Dear [Name],

I would like to introduce myself; I am Jip Dekker, a master's student at Wageningen University. I am contacting you because I am researching the concept of transformational change in the European Green Deal. My focus is on what ideas and strategies are advocated and their potential for addressing the major social-environmental challenges.

[Specific reasons I want to talk to this individual]. More broadly, I am curious to hear from diverse people whose work is influenced by the document and its implementation, and especially your ideas on what transformational change means in the EU context.

If you are interested and available for an interview, it would be around 30 to 45 minutes. But any time is greatly appreciated. Preferably we can speak online, but an in-person interview can also be arranged.

Thank you for letting me know if you are available, and I am of course happy to first answer any further questions. I look forward to hearing from you!

Sincerely,

Jip Dekker

Appendix III

List of people interviewed

ID	Position in the EU
Interviewee 1	Cabinet staff at Cabinet of Frans Timmermans and DG Climate Action
Interviewee 2	Policy officer Emission Trading System at DG Climate Action
Interviewee 3	Staff at the Committee on Environment, Public Health and Food Safety for the Left in the European Parliament
Interviewee 4	Adviser at DG Research and Innovation
Interviewee 5	Deputy-Director General DG Internal Market, Industry, Entrepreneurship and SMEs
Interviewee 6	Deputy Director-General DG Agriculture and Rural Development
Interviewee 7	Director at one of the directorates of DG Agriculture and Rural Development
Interviewee 8	Member of Economy and Environment Working Group at European Parliament for European People's Party
Interviewee 9	Policy officer Circular Economy DG Environment