



The European Union's climate change mitigation action: an ongoing transition?

PH. D in International relations

October 2016-September 2020

Candidate name: Valeria Tolis

Candidate number: C1461786

Supervisors: Dr. Hannah Hughes, Prof. Fabio Vighi, Dr. Alena Drieschova

Word count: 69479

Abstract

This project develops a Lacanian framework for analysing the EU's climate change mitigation policymaking in a period that corresponds to the finalisation of the 2030 Clean energy package and the launch of the 2050 long-term decarbonization strategy. It empirically follows the work of the EU at its Brussels headquarters and at the level of the UNFCCC Conferences of the Parties between 2017 and 2018 and methodologically contributes to the poststructuralist strands of Global Environmental Politics in International Relations. This project aims to reflect on the nature of the EU's current climate action and on the possibility of "change" in relation to scientifically informed climate warnings and recommendations on departing from the business as usual logic. The investigation is guided by the case studies of *energy efficiency* and *renewables*, and *circular economy* given their policy-relevance and given that these are considered desirable policy tools by the EU. It builds on Jacques Lacan's theory of discourse which allows us to emphasise signification and its effects on the speaking subjects. This makes it possible to open a seemingly closed discourse and expose its inherent fractures through the speaking subjects by empirically exploring how energy efficiency, renewables and circular economy are spoken. It is demonstrated that *energy efficiency*, *renewables* and *circular economy* cannot be thought as a presupposition of sense that automatically delivers the desired and required emissions reductions. I argue that to understand the current EU's climate action and any possibility of change, attention must be paid to the way in which any produced fractures are handled in signification by the subjects, as these can be either positively integrated into signification or can disrupt it and cause a change of paradigm. I conclude that except for a few potentially disruptive elements that leave room for a true rupture and possible change, the current EU's climate mitigation action appears more as a fictitious change than as a real transition.

Table of contents

Abstract	i
Table of contents	ii
List of acronyms.....	v
List of Figures and Tables.....	vii
Acknowledgments.....	viii
Chapter 1. Introduction	1
Chapter 2. Project positioning.....	9
2.1 Introduction	9
2.2 Climate governance and EU governance: echoes of rationalist approaches	10
2.3 Discourse analysis and the environment	14
2.3.1 Language matters	14
2.3.2 Discourse analysis in environmental politics.....	18
2.4 Conclusion.....	21
Chapter 3. Conceptual framework	24
3.1 Introduction	24
3.2 Jacques Lacan's theory of discourse	26
3.2.1 The priority of the signifier.....	26
3.2.2 Discourse	28
3.2.3 The Lacanian subject as the subject of the enunciation.....	30
3.2.4 The relevance of the Lacanian subject-discourse relationship in social research	32
3.2.5 Symbolic, Imaginary, Real: the three registers of discourse	34
3.3 The theory of the four discourses	36
3.3.1. The fixed framework and the four discourses	36
3.3.2 The University discourse: knowledge as command	39
3.3.3 Knowledge: University or Hysteric discourse?	41
3.3.4 The Capitalist discourse: enjoyment unbound.....	42
3.4 Conclusion.....	46
Chapter 4. Methods	49
4.1 Introduction	49
4.2 The policy landscape: the 2030 Clean Energy Package and the 2050 long-term strategy	50

4.3 From theory to practice. “What” to look for: fieldwork as the moment of the enunciation	53
4.4 From theory to practice. “Where”: participant observation, interviews, netnography	54
4.4.1 The fieldwork process: participant observation	54
4.4.2 The fieldwork process: interviews	57
4.4.3 The fieldwork process: “netnography”	58
4.5 Lacanian discourse analysis (LDA)	59
4.6 Implications of positioning in the field and conducting an LDA	62
4.7 Conclusion	64
Chapter 5. Climate change mitigation as “knowledge”: the case of energy efficiency and renewables	67
5.1 Introduction	67
5.2 Climate mitigation action: “knowledge” at work	69
5.2.1 The mobilisation of knowledge	69
5.2.2 The disavowed nature of knowledge	72
5.2.3 The anchoring point of representation: the command of knowledge	76
5.3 Disrupting <i>climate change</i> and <i>mitigation</i>	79
5.3.1 The signification space of climate change	79
5.3.2 <i>Mitigation</i> as nonsensical	82
5.4 Disrupting <i>energy efficiency</i> and <i>renewables</i>	87
5.4.1 Why energy efficiency and renewables?	87
5.4.2 <i>Energy efficiency</i> qua lacking knowledge	89
5.4.3 <i>Renewables</i> qua lacking knowledge	92
5.4.4 <i>Energy efficiency</i> and <i>renewables</i> as fantasy?	94
5.5 The postgrowth conference: breaking discourse boundaries?	97
5.5.1 Of knowledge and scientific enquiry	97
5.5.2 The disruptive force of <i>energy efficiency</i>	99
5.5.3 The disruptive force of <i>renewables</i>	102
5.6 Conclusion	107
Chapter 6. Climate change mitigation action: the case of the non-circular economy	109
6.1 Introduction	109
6.2 The disruptive potential of circularity	111
6.3 The desirable role of the circular economy	116

6.4 Circular economy as the hystericizing element in discourse: resistance.....	118
6.5 Climate action and circular economy in the “in between strategies” period.....	122
6.6 Acceptance: is it a circle or a line?.....	127
6.6.1 Expanding the boundaries of signification within the EU?.....	127
6.6.2 Circular economy and its link to climate action	128
6.6.3 Labels in the context of a product policy.....	130
6.6.4 Circular economy as recycling	131
6.6.5 Circular economy as ecodesign	132
6.6.6 New perspectives on the circular economy?.....	135
6.6.7 Is the whole economy becoming circular?	137
6.6.8 The size of the circle and the pace of its movement.....	139
6.7 The element of counter-resistance.....	142
6.8 Conclusion.....	149
Chapter 7. Conclusions	152
7.1 Summary and discussion of the findings.....	152
7.2 Discussion of the findings in terms of their contribution to environmental politics	162
7.3 Suggestions for future research	165
Bibliography.....	168
Appendix	185

List of acronyms

CAN: Climate Action Network
CCS: Carbon Capture and Storage
CCU: Carbon Capture and Utilisation
COP: Conference of the Parties
CRM: Critical Raw Materials
DA: Discourse Analysis
DG: Directorate-general
EEB: European Environmental Bureau
EESC: European Economic and Social Committee
EFA: European Free Alliance
ENGOS: Environmental non-governmental organisation
EPP: European People's Party
EPSC: European Political Strategy Centre
ETS: European Trading Scheme
EU: European Union
EVs: Electric Vehicles
GEP: Global environmental politics
GHGs: Greenhouse gases
HFC: Hydrofluorocarbons
IEA: International Energy Agency
INDCs: Intended Nationally Determined Contributions
IPCC: Intergovernmental Panel on Climate change
IR: International Relations
JRC: Joint Research Centre
LDA: Lacanian discourse analysis
LULUCF: Land use, land-use change, and forestry
MEP: Member of the European Parliament
PVs: Photovoltaics
R&I: Research& Innovation
RTD: Research, Technology, Development
SDGs: Sustainable Development Goals
SMEs: Small & Medium Enterprises
UAB: Universitat Autònoma de Barcelona

ULB: Université libre de Bruxelles

UNFCCC: United Nations Framework Convention on Climate Change

List of Figures and Tables

Figure 1: The fixed framework	37
Figure 2: The four discourses with their fifth variant	37
Figure 3: The University discourse	39
Figure 4: The Capitalist discourse	42
Figure 5: The 2 circles (The Ellen MacArthur Foundation, 2019)	113
Figure 6: Slide taken from the SCREEN presentation at the CRM event	139
Table 1: EU side events attended at COP23	185
Table 2: In-site observations conducted at the EU headquarters in Brussels.	186
Table 3: EU side events attended at COP24	190

Acknowledgments

I would like to thank the ESRC-DTP Wales for granting me the opportunity to undertake this research project. I am also extremely grateful to my supervisors Dr. Hannah Hughes, Prof. Fabio Vighi and Dr. Alena Drieschova for their role in defining the path of my research, for their guidance and for encouraging me through each stage of the research process. I would like to acknowledge the contribution of all the staff in the Law & Politics department who made this accomplishment possible. Finally, I would like to express my deepest gratitude to my family and my friends for their continuous love and support.

Chapter 1. Introduction

Human induced climate change is one of the most pressing issues of our time. The United Nations Intergovernmental Panel on Climate change (IPCC) stated in its Fifth Assessment AR5 (2014) as well as in its Special report (2018) that the global average surface temperature warmed by approximately 1°C (likely between 0.8°C and 1.2°C) above pre-industrial levels (1850-1900) in 2017 (IPCC special report 2018, p.51). It is today accepted in the scientific community that the dominant cause of climate warming since the mid-20th century is the human influence on the climate. If human activities continue to disrupt the climate system by emitting Greenhouse Gases (GHGs), this will severely and irreversibly impact people and ecosystems. The longer our response is delayed, the higher the technological, economic and social challenges and costs we will incur (IPCC AR5, 2014). As a result, ambitious climate change mitigation actions are necessary to limit global warming to below 2°C and possibly 1.5°C (IPCC AR5, 2014 and IPCC special report 2018, p.51) compared to pre-industrial levels. This requires “an urgent and fundamental departure from business as usual” (IPCC AR5, 2014, p. v).

The EU has been responsive to scientifically informed climate warnings (see IPCC AR5 2014 and IPCC special report 2018) and has pushed for binding international commitments since the Kyoto Protocol (1997) under the United Nations Framework Convention on Climate Change (UNFCCC). These have been matched by internal institutional commitments with the entry into force in 2009 of the 20-20-20 regulatory framework. This framework set a target of reducing GHG emissions by 20%, increasing the share of renewables by 20%, increasing energy efficiency by 20%. by 2020 compared to 1990 levels. Although these commitments have been criticised at times for not matching the high ambition advocated at the international level (Dimitrov, 2016; Oberthür & Kelly, 2008; Oberthür & Pallemarts, 2010), the current 20-20-20 regulatory framework is coming to an end, and EU climate policymakers have been planning the future directions to take. For this purpose, the EU has come to finalise its climate and energy plans for the period 2021-2030 with the “Clean Energy package for all European citizens” which sets higher targets, i.e. an increase of the share of renewables by 32%, an improvement for energy efficiency by 32.5% and a total of 40% GHGs emission reductions, compared to 1990 levels. Meanwhile, the ratification of the Paris Agreements (2015) under the UNFCCC commits its parties to keep global warming below 2°C and pursue efforts to limit the increase to 1.5°C (Paris Agreement 2015, Art.2) but leaves to the parties how decarbonisation will be conducted. The more ambitious approach required by this new international treaty has set up the direction of work

for the EU. This is represented by the Commission Communication (COM (2018) 773 final) called “A Clean Planet for all - A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy”, commonly referred to as “the long-term strategy”, which is a statement of intents whose role is to assert the EU Commission’s course of action in a given policy area.

In this project I investigate the EU’s climate mitigation action by virtue of the higher level of ambition proclaimed by the EU both in the mid run (2030) and long run (2050). Consequently, I situate my research in the moment that corresponds to the finalisation of the 2030 mid-term climate policy framework and the launch of the 2050 “long-term strategy” of the EU’s climate policymaking. My research empirically follows the work of the EU and its stakeholders at its Brussels headquarters and at the level of the UNFCCC Conferences of the Parties (COP), where I participated in both the COP23 (2017) and the COP24 (2018). In this critical phase of the policymaking that sets out the future direction of work, I reflect on the nature of the current EU’s climate action and on what constitutes “change” in relation to the business as usual logic. For this purpose, throughout the project, the period under observation will be referred to as the period “in-between strategies” to place an emphasis on the alleged transitional aspect that this policymaking should bring about in the achievement of the climate objectives in line with climate science. My critique of the EU’s climate mitigation action is not addressed to mainstream market-based policy solutions such as the famous European Trading Scheme (ETS). Rather, it is addressed to more complex policy tools and concepts that are apparently unproblematic and even desirable, such as energy efficiency, renewables and circular economy. My selection of the case studies is justified on two grounds. Firstly, these tools play a key role in both the 2030 Clean Energy Package and the 2050 long-term strategy. Secondly, these policies are in fact apparently desirable solutions, in that no one would argue against having equipment or devices that consume less energy, use renewable energy, or are recycled and re-manufactured. Hence these can be potentially regarded as desirable change carriers.

This work does not conduct a critique of energy efficiency, renewables or circular economy as pre-constituted and taken for granted policy tools. The reflective epistemological perspective adopted in this study sets this project apart from predominant problem-solving perspectives (Cox, 1981) in the study of EU’s climate policy (see 2.2). Rather than engaging with causal explanations as to what factors in terms of institutions and relationships influence a given policy outcome (Oberthür and Dupont, 2015), I contribute to the poststructuralist

strand in the wider Global Environmental Politics (GEP) field, as I emphasise the socio-linguistic performative character of “climate change” and consider “mitigation” as the starting point of reflection from a qualitative perspective. Importantly, this perspective allows us to take into account the interplay of actors and institutions that populate the EU’s climate landscape (Richardson and Sharp, 2001). Furthermore, this perspective enables to approach climate change knowledge in a non-reductionist way both as a biophysical phenomenon, inherently related to other environmental degradation issues, and as a socio-economic issue, most notably related to energy needs in the EU economy. The discursive approach adopted in this project departs however from the dominant Foucauldian approaches in IR-GEP, insofar as it does not focus on competing discourses as storylines (Hajer, 1995; Hajer and Veerstag, 2005; Leipold et al., 2019). Instead, I build on a discursive conceptual framework that draws on Jacques Lacan’s discourse theory, which allows me to place a greater emphasis on signification, retain the centrality of the subject, and accordingly analyse the effects of this unfolding signifying chain on the speaking subjects. Through an empirical investigation of how *energy efficiency*, *renewables* and *circular economy* have become the policies of choice, I illustrate what “becoming energy efficient”, “becoming renewable” and “becoming circular” mean for the EU in relation to delivering an ambitious climate change mitigation action. These policy tools are embedded in a critique that regards these as the formalisation of an overarching socio-linguistic structure that enables us to establish, define and maintain our societal and thus climate relationships, i.e. discourse. This allows me to emphasise the partial and never achieved character of *energy efficiency*, *renewables* and *circular economy* as transition-carriers by exposing the inconsistencies, gaps and blind spots that embody an ontological residue of signification in the enunciation of the Lacanian speaking subject.

By opening a seemingly closed discourse and exposing any fractures through the speaking subject, the key to understanding the EU’s current climate action lies in the way any produced fractures are handled in signification, that is by being positively integrated into signification or by disrupting it. Hence, I demonstrate that we cannot think of energy efficiency or renewables or circular economy as a presupposition of sense that automatically delivers the desired emissions reductions. In fact, with the exception of a few elements of disruption that leave room for a real rupture and possibly change of paradigm, the EU’s current climate mitigation action appears more a fictitious change than a real transition. This argument is justified on the grounds that the traumatic points of the discourse, through which these fractures could become effective in bringing about change, are mainly positively

integrated into the hegemonic signification and turned into commodified knowledge and commodified objects of identification. The next six chapters develop my research as follows.

Structure of the thesis

Chapter 2 outlines my literature review with the aim of positioning this project in the broader academic environmental politics debate. For this purpose, it reviews the dominant paradigms in environmental politics by paying attention to the types of questions they address. Hence, I review traditional approaches, such as neoliberal institutionalist approaches, and I argue that these are still predominant in EU's climate policy/governance. These approaches are preoccupied with finding a causal explanation to a given bargaining outcome or a given policy outcome. For this reason, I justify the conduct of my research by contrasting these problem-solving approaches with a reflexive approach (see Cox, 1981) that enables to take "climate mitigation" as the anchoring point of reflection. The main contributions of discursive approaches are then emphasised, and I situate my research within a discursive framework based on Jacques Lacan's theory of discourse. This approach, by virtue of a dialectical relationship between discourse and subject, enables us to account for agency and therefore for stability and change.

Chapter 3 sets out a conceptual framework based on Lacan's theory of discourse, which informed my empirical chapters. The first part of the chapter elaborates on signification, discourse and subject from a Lacanian perspective and insists on their relationship of mutual presupposition. "Discourse" becomes the overarching socio-linguistic structure allowing us to establish and organise our intersubjective societal and climate relations. Consistently, I explain how the subject presupposes language to create sense, and more widely, to establish and maintain these societal relations. At the same time discourse presupposes a real speaking subject to be established and maintained. Within this framework, I emphasise how the activity of speaking always produces an excess of meaning that is perceived like a loss in the enunciation, as the socio-linguistic order can never fully complete the subject. This theory thus places at the heart of the analysis a lacking but socially produced climate subject, that is split between the pursuit of climate objectives and a signifying structure defining them and regulating their actions. The impossibility of the discourse is rendered visible in the blind spots, contradictions, weaknesses that make the discourse always partial and inconsistent. It is the focus on this produced ontological residue of signification that can explain rupture and change based on how this fracture is positively integrated into signification or how it disrupts signification. The second part of the chapter addresses the theory of the four discourses.

These can be used as guidelines to reflect on what underpins knowledge in the EU's climate mitigation action and how we understand the "objects" of identification that are relevant to this transition, such as energy efficiency, renewables or circular economy. Indeed, these social bonds can be distinguished based on the social effect they produce. The Master (with its Capitalist variant) and the University discourses embody the hegemonic discourses of power and commanded knowledge, whereas the Hysteric and the Analyst discourses embody the discourse of challenge and ultimately change.

Chapter 4 translates the conceptual framework into a research practice and a method of data analysis. It presents the policy context in which I developed my research practice and briefly outlines the main policy features of the EU's climate policies and strategies and how these intertwine with the UNFCCC international governance. It clarifies how the enunciating act is the moment when the mutually presupposed relationship between discourse and subject is manifested. For this purpose, I justify the need for conducting field research in those sites of climate policymaking where I can conduct participant observations and interviews. Hence, the chapter provides an account of the fieldwork activities conducted between November 2017 and December 2018 in terms of participant observations and interviews at both the EU headquarters in Brussels and at the UNFCCC level by attending the Conferences of the Parties COP23 and COP24. I also describe my interviewing practice, which has been varied and adjusted on a case-by-case basis based on the actors and their different engagement with the interview. Finally, I explain that these methods are complemented by the web resources provided by the EU Commission's and the EU Parliament's websites, which I employed as a way of tracing the ongoing climate-related events and of scrutinising the official policy documents referenced during events or interviews. The last part of the chapter sets the premises for a Lacanian discourse analysis that will be conducted in the empirics. It explains how I focused on the system of structuration of language and how I analysed the unfolding signifying chain in which our subjects are caught and which they put to work as "knowledge". Mapping the structuration of language is a way of breaking down the text because it enables the isolation of the potential anchors of representation, but also because it enables the generation of different perspectives on the text by exposing the excess-leftover of meaning rendered visible in the gaps, weaknesses and contradictions that make the discourse partial and inconsistent. The last part of the chapter addresses the implications and limitations of such methodological positioning, in that in a Lacanian Discourse Analysis I only act as reflexively positioned on the text and does not entail an objective "metalanguage" perspective.

Chapter 5 provides the first case study of the EU's climate mitigation. The aim is to generate alternative understandings of a seemingly closed discourse to reflect on the nature of the EU's climate transition and on any possibility of shaking the foundation of discourse. I show how in the pursuit of achieving the goal of climate change mitigation, the EU's climate mitigation action is placed by policymakers in a context of knowledge that, despite being hailed as evidence-based, is put to work in function of a disavowed command of competitiveness, accumulation and ultimately growth. Consistently, I empirically discuss the nonsensical, or partial, character of *climate change* and *mitigation* and show how these are signified around the semantic gravitation centre of *energy transition*, which closes the signification space by neglecting considerations about the ecosystem, biodiversity and the planet more in general. Within this climate and energy nexus, I empirically show how *energy efficiency* and *renewables* constitute the quintessence of this rationalised and valorised commanded knowledge produced via the integration into signification of its traumatic points, that is where discourse reveals its partiality and impossibility. This in turn results in a paradoxical (dis)satisfaction and fictitious sense of plenitude of targets, impact assessments, continuous consultations, modelling, policy drafting, technology innovation and research, or efficient or renewable consumption. For this reason, I conclude that *energy efficiency* or *renewables* as a presupposition of sense do not automatically deliver the desired and necessary climate change mitigation. As a result, the proclaimed climate action qua energy transition appears to be a fictitious change that is not able to defy the hegemonic discourse.

Chapter 6 continues the reflection on the nature of the current EU's climate transition and on any possibility of change and presents the case of the circular economy. The critique emphasises the potentially disruptive character of the metaphor of "circularity" which would embed issues of metabolism, complexity and interrelation. As a result, I investigate how "circularity" is spoken within the EU in relation to delivering an ambitious climate mitigation action. For this purpose, I show how *circular economy* is in principle acknowledged as a vital part of an effective EU's climate action. Precisely, I argue that circularity can contribute to a greater symbiosis and coordination of all EU policy DGs, i.e. the Commission's departments. It can also become a common pattern across policy areas in that it requires a consideration of flows and how these interact with the surrounding biophysical environment. This alternative concept would pose the circular economy knowledge in contrast with the linear, reductionist and bureaucratised approach that has been

so distinctive of the Commission. However, I claim that precisely because it pointed to a reorganisation of our societal and economic relationships and to how knowledge is produced and exchanged, the initial element of disturbance represented by “circularity” has been gradually resisted. This resistance first came through a withdrawal of the circular economy project and then with a reintroduction and co-option of the project that has entailed a loss of the liberating potential that “circularity” carried with it. As a result, I open this seemingly closed discourse and look at what “becoming circular” means for the EU to see whether and where fractures in discourse still emerge. I conclude that *circular economy* is not spoken as a common pattern across policy areas, but as another policy carriage of the EU qua regulatory machine. The illusion of greater circularity is sustained by the fantasies of standardising practice, increased recycling, ecodesign meant as energy efficiency and new business models that perpetuate old logics, which promise to cover the impossibility of discourse and give us a semblance of circularity. Thus, the alleged circle in which the subject is caught seems to picture the a loop of painful and paradoxical (dis)satisfaction which must move faster and on a larger scale without being able to picture the circularity, meant as transformation, and pursue the desired climate objectives. However, I emphasise the important element of counter resistance provided by stakeholders such as the European Economic and Social Committee (EESC) or the unofficial policy landscape such as the Postgrowth conference on 18-19/09/2018, where different subjectivities challenging the status quo try to keep the original disruptive element of circularity alive and expand circular economy signification beyond more recycling, beyond energy efficiency, beyond the ever-expanding geographical boundaries.

Chapter 7 sums up the main arguments by following the key themes of knowledge, its authority, the fractures in discourse, how the surplus of signification that emerges in the enunciation is handled, and what type of transformative forces can be detected. Furthermore, the chapter discusses their relevance in the field of environmental politics and International Relations more widely. It links back to the discussion about mainstream theoretical approaches in studying the EU’s climate action and their focus on the factors that influence a given policy outcome conducted in the literature review Chapter 2. Within this framework, I reassert the contribution of this project to the social constructivist and poststructuralist strands in the wider IR-GEP discipline for the way in which I investigate “how” the very concept of “EU’s climate mitigation” is thought and constituted. By placing an emphasis on signification and on the signifier as unit of analysis I illustrate the partial and never achieved character of the signifier, whether *efficiency*, *renewables*, *circular economy* or *mitigation*. In

this respect *efficiency, renewables, circular economy* are not competing “discourses”, but they coexist as an ever-partial expression of the same discourse as the social link. As a result, this approach retains a more resistant subject, for its emphasis on the speaking subject as a form of agency and on its effects, that is the produced surplus of meaning. Finally, the chapter makes suggestions about how the insights provided in this study can help understand the further development of climate mitigation policy and how they can help in other issues areas in environmental politics, and potentially in IR, that seek to investigate agency, stability and rupture from a discursive perspective.

Chapter 2. Project positioning

2.1 Introduction

This project focuses on a specific aspect of the EU's climate change action, that is climate change mitigation. More specifically, I am focused on what comes constituted as "mitigation" as spoken in the field by examining the nature of the EU's climate action in a period that corresponds to the finalisation of the 2030 Clean Energy Package and the launch of the 2050 long-term decarbonisation strategy. This chapter positions my research in the broader academic context and identifies its contribution. I argue that climate change politics is a complex object of research for two main reasons. First, it is a phenomenon that intersects with other biophysical phenomena, such as environmental degradation, or other social phenomena such as energy (in)security and forced migrations. Second, climate governance involves the interplay of a wide range of actors and institutions across multiple levels of analysis. Thus, the risk of treating it as a single-issue area or treating the EU as an atomistic unit means oversimplifying this complexity and excludes important aspects in the analysis. For this purpose, I illustrate how traditional mainstream accounts, as exemplified by neoliberal intuitionist approaches, are underpinned by a positivist epistemology that attempts to find causal explanation to a given bargaining outcome or a given policy outcome. However, despite these rationalist approaches have been juxtaposed in International Relations (IR) by a multitude of other approaches that provide more sophisticated analysis of structure, power and agency (Marxist, Gramscian, Feminist), they are still predominant in approaching the EU's climate governance, where the EU's climate policy is still studied in function of international leadership, European integration or energy security.

As my approach intends to take climate change mitigation as the anchoring point of reflection, rather than EU leadership or EU integration, I emphasise the need to carve out a research space between those approaches highlighting the construction of the social world. Precisely, I argue that a focus on discourse allows us to consider the performative role of language, reflect on how language is ingrained into practice and answer "how" questions. Hence, in the last section I illustrate that discourse analysis in environmental policy encompasses a vast field of related approaches as the language of environmental politics is continuously contested in a meaning struggle. In doing so, I emphasise a dominant literature strand that addresses the socio-cultural meaning structures and builds on Foucault's theory of discourse as a means of establishing power relations via knowledge. Then, I highlight the main discursive contributions to the problematisation of the relationship between power and knowledge in the field of environmental science, to the meaning struggle between competing

storylines, most notably that of radical restructuring versus ecological modernisation, and to the production of a new climate change governmentality. At the same time, I claim that a Lacanian-based discursive power-knowledge relationship is in line with that of Foucault but places a greater emphasis on the foundational role of language and signification in society. More importantly its main contribution lies in his theory of the subject. Although the achievements of Foucauldian discursive approaches are not disregarded in this project, scholars agree that these downplay the role of subject, as the latter is constrained and subjugated to power, which in turn hinders the possibility of resistance and change.

By contrast, I claim that a Lacanian approach helps understand the mechanisms of stability and change in the discourse by engaging with concepts of power and agency precisely because it retains the centrality of the subject which can be understood only by considering the paradox of language. As I will explain more in detail in Chapter 3, the socio-linguistic order can never fully complete the speaking subject and the activity of speaking produces an excess of meaning, which is perceived like a loss. Hence by insisting on a constitutive lack rather than the essence of the individual psyche, I do not risk collapsing the social level to the individual level as the subject continuously attempts to fill this lack through available social discursive representations. However, this produced excess-loss can either disrupt signification and produce a change or can be neutralised and positively integrated into signification. Thus, it is the mastering of this excess that enables to explain stability and change, and this is what justifies a Lacanian theoretical framework as the framework of choice for this project.

2.2 Climate governance and EU governance: echoes of rationalist approaches

This project zooms in on a specific aspect of EU's climate change politics, that is climate change mitigation. More specifically, based on what comes constituted as "mitigation" as spoken in the field, it reflects on the nature of the EU's climate action in a period that corresponds to the finalisation of the 2030 Clean Energy Package and the launch of the 2050 long-term decarbonisation strategy (see Chapter 1 and 4). Climate change politics is a complex object of research, for two main reasons. First, "climate change" is an issue that intersects with other biophysical phenomena such as environmental degradation in general, or other social phenomena such as energy (in)security or forced migrations. Therefore, treating it as a single-issue area risks excluding other interrelated factors in the analysis. Second, climate change politics is a complex object of research due to the interplay of a wide range of actors and institutions, and due to the multi-level character of global climate

governance. This complexity affects the way we choose the starting level of the analysis. For example, when studying the EU's climate change mitigation, an important preliminary question is at what level to study the EU: its role in international governance, or the EU institutional level. More importantly, even if I decide to focus on a given actor at a given level, for example the EU institutional level, but the research question aims at investigating a concept such as "mitigation", another analytical point to address is what links these chosen speaking actors to a concept such as "mitigation".

The literature on the international climate governance has been dominated by the regime strand of neoliberal institutionalism (Keohane and Nye, 1977). In these accounts climate change has been framed from a "problem solving" perspective (Cox, 1981) as a pre-given issue whose resolution depends on problem-solving skills by decision-makers in the inter-state bargaining process (Strange, 1983; Krasner, 1983; Vogler, 1995; Ward, 1996; Susskind 2014). These approaches characterise for considering states as rational, unitary actors with fixed interests, and for neglecting important phases of the policymaking process such as the agenda setting, domestic constraints, as well as the role of non-state actors. Finally, these approaches treated states as autonomous from economic organisations (i.e. corporations) and perpetrated a separation between politics and economics.¹ This problem-solving, regime-based account does not serve the purposes of this project, as it implies treating as a given assumption the very same concept on which I am trying to reflect, namely "climate change mitigation". In this study I do not aim to establish causal connections on climate mitigation bargaining but to reflect on a specific case study in a specific phase of the policymaking. As a result, although this project does not intend to downplay the contribution of rationalist approaches in IR-GEP, it considers these insufficient for answering the addressed research questions. At the same time, the narrow frame of this climate governance literature has been challenged for over two decades. For example Paterson (1996) argued that the problem lies in the questions such theories ask rather than for the explanatory power of the answers they give (Paterson, 1996, p.7), and that the way in which an issue is framed can exclude the detection of the main causes of the issue (Paterson, 2001, pp. 2-3).² Important evolutions

¹Other regime scholars acknowledged that it would be a mistake to neglect transnational alliances, interest groups as well as domestic pressures, and that environmental policy does not depend entirely on rules and the international level (see Young, 1989; Levy et al., 1993).

² In this work he provided a "structural" understanding and we can perceive a constructivist bent where he highlighted the social construct of "structure". For example, he explained that those trends which are causing climate and environmental change have to be understood as part of the reproduction of power structures in world politics (and economy) that constraint actors. These "tend to reproduce their basic principles through the practices of actors operating within them, and thus tend to reproduce the way in which they confer power on actors differently" (Paterson, 2001, p. 42). Hence, if such power structures are anti ecological this affects the type of political responses we should expect. He built on Greens' concepts of ecocentrism by Eckersley (1992,

within this framework aimed at expanding the policy landscape, for example via the inclusion of non-state actors and by showing that separating politics from economics is not tenable (the role of fossil fuel lobbies in Newell, 2000;³ Rowlands, 1995).

If on the one hand in IR the neoliberal institutionalist approach has been juxtaposed by a multitude of paradigms providing more sophisticated analysis of power and structure such as Constructivist, Marxist, Gramscian, Feminist approaches and might no longer be regarded as the dominant strand in GEP, on the other hand the neoliberal institutionalist influence persists in the literature on the EU's climate governance and the EU's climate policy. At the same time, it persists with some theoretical evolutions that reflect the character of the EU as a supranational organisation. This literature focuses on the EU international leadership and on climate policy as the vehicle towards greater European integration. Leadership studies are concerned with what constitutes leadership, what factors underpin leadership and what type of leader the EU is (see Oberthür, 2009). These include early regime approaches to leadership (Gupta&Grubb, 2000)⁴ as well as more constructivist-influenced approaches preoccupied with "actorness" (Bretherton & Vogler, 2006)⁵ and with what actor, namely EU institution, exercises leadership (Wurzel and Connelly, 2011).⁶ Other studies address the interplay between the international and the internal variables in the EU's climate policy in analysing the extent to which the EU's climate policy has contributed to boost the integration process. For example, it is argued that the international and the EU's climate policy shaped

pp. 49-56) and Goodin (1992) and the questions of limits to growth which builds in turn on Meadows et al. 1972 (Dobson, 1990, pp. 74-80).

³ Newell (2000) analysed the role of non-state actors such as fossil fuels lobbies and environmental NGOs in the Working group I of IPCC, as these were previously regarded as externalities. Although he did not challenge regime theories and remained committed to inter-state bargaining he included less visible form of power (Newell, 2000, p. 33) other than coercive capabilities and domination (Waltz, 1979; Morgenthau, 1948) of non-state actors at different stages of the negotiation phase (Paterson, 1996; Saurin, 1996; Willet, 1993). Such non state actors have power not because they are present in the final draft of the text but because "they have helped to shape the contours of the debate by lobbying for or against various policy options, by projecting new understandings, norms and expectations, or by helping to ensure that some options were never even considered because of their structural power, which may not be visible in the confines of the formal policy arena but is ever-present in the minds of policy-makers" (Newell, 2000, p. 165).

⁴ Economic analysis is not seen as sufficiently part of the policymaking, issue linkage is more an intuition, non-state actors are occasionally mentioned, and the only dichotomy represented is that of EU versus member states. However, this was written at the time when Kyoto had not been ratified yet and the regime was at its early formation.

⁵ Importantly, they considered the EU as an entity in construction, whose identity is fluid (Bretherton & Vogler, 2006, pp. 35-36). Although not limited to environmental policy, their focus is actor capability and what determines such actorness. Furthermore, the dichotomy is still EU versus member states and the complexity of EU institutions (i.e. when analysing presence) themselves is not addressed.

⁶ This work breaks with the traditional distinction EU versus member states, for looking at each EU institution, groups of member states as well as for considering non-state actors (ENGOS and business groups). Indeed, even at the EU level alone, it appears that there are different agencies competing with each other, identities evolve but agents are still institutions and not people, in line with what detected by Kuus (2014, p. 44) in her work of critical geopolitics on EU diplomacy.

each other for more than two decades by gradually reducing the credibility gap between international bargaining and internal commitments (see also Oberthür & Kelly, 2008), so that the self-proclaimed leadership role has become more credible (Oberthür & Pallemmaerts, 2010, pp. 12-14, 28). Consistently, Skjærseth and Wettstad (2010) employed three explanatory integration theories, namely liberal intergovernmentalism,⁷ multilevel governance,⁸ and the impact of international regime, to explain the change of policy tools such the change from the old European Trading Scheme (ETS) to the new ETS.⁹ Similarly, Jordan et al. (2010) framed the climate policy in terms of different dilemmas that the EU faces and confront these with the perspectives offered by liberal intergovernmentalism, contrasted with a process-oriented historical institutionalism¹⁰ and theories of multi-level governance. More recently, attention has shifted towards energy security issues. For example, Oberthür and Dupont (2015) focused on what decarbonisation means for the EU internal energy-related policy and for external energy relations. In this respect, these scholars are interested in analysing the progress made so far and what could further be done to achieve decarbonisation by 2050, by comparing business-as usual projections with the reality of policy measures. Externally this means turning decarbonization from an internal policy objective qua dependent variable into a given independent variable for analysing the impact that decarbonisation might have on EU's external energy relations (i.e. phase-out of fossil-fuel imports) (Oberthür and Dupont, 2015, pp. 12-14). In conclusion, these approaches tend to adopt a causal positivist lens to explain what influences a given style of leadership or what affects the outcome of a given climate policy. This implies taking the world as it is as a

⁷ Neoliberal intergovernmentalism considers the EU's policymaking and integration as an outcome of inter-state bargaining. State interests and choices in intergovernmental venues determine most part of European integration. More specifically, the policymaking is determined by national governments that are constrained by domestic interests (Moravcsik, 1998). This theory is criticised for assuming states as unitary, rational (Jordan et al., 2010, pp. 44-45), it does not consider their internal diversification and overlooks the impact of EU in shaping domestic preferences.

⁸ Multi-level governance is an alternative to state-centred approach. It consists of many variants sharing the central assumption that the EU is multilevel and composed of different actors and that the EU integration weakened the state (Hooghe & Marks, 2001).

⁹ The European Emissions Trading Scheme. Both approaches emphasise internal factors in policymaking and attempt to explain change of member states' position. However, while the neoliberal intergovernmental approach explains the change of position by Member states in requesting the reform, the multi-level governance perspective contributes more to understand the scope and magnitude of changes, as the idea of centralised and harmonised ETS based on auctioning was encouraged by European Parliament, European Commission and ENGs. As change was not detected as being a response to changes in international regime but an attempt to affect the regime (Skjærseth & Wettstad, 2010, p. 86), thus the "impact on international regime" lens is claimed to be the weakest.

¹⁰ This theory takes into account how governing is a process that unfolds over time, and thus is a cumulative process whose implications are embedded in institutions (Pierson, 1996, p. 126). Accordingly, state interests are fluid, sector-specific and affected by the expansion of the *acquis*. Thus process-oriented theories stress that such preferences can also be exogenously created as states adjust them due to their membership to the EU. Process-oriented theories have been criticised for explaining only stability with sudden deviations being assumed as the product of sudden exogenous events; they are not coherent and have low predictive power (Jordan et al., 2010, p. 47).

framework for action with the aim of making institutions and relationships run smoothly, in order to identify laws and regularity whose validity depends on the institutional and relational parameters assumed in the theory (Cox, 1981, pp. 128-129). At the same time, if we consider the ideal aim for which such policies are put in place, that is GHG emissions reductions, even problem-solving scholars acknowledge that despite the progress achieved in the twenty-first century, the EU policy falls short of the EU ambition of keeping temperature from rising more than 2°C (Oberthür and Pallemmaerts, 2010, Jordan et al., 2010, Oberthür and Dupont, 2015). In this regard, the difficulty lies not so much in putting the issue on the agenda but how to address the problem (Jordan et al., 2010 p. 3), as policies are not delivering at a global level the reductions demanded by scientists (Helm, 2008).

Hence, rather than focusing on leadership or integration, my project takes “climate change mitigation” as its anchoring point of reflection and focuses on *how* the very concept of “EU’s climate mitigation” is thought and constituted to reflect on the nature of the current climate action and on what constitutes change from a qualitative perspective. To pursue this aim I need to position my research in a different ontological and epistemological perspective, what Cox (1981) has defined a “reflexive”¹¹ theory that allows us to study climate change in a non-reductionist way and to consider the complexity of actors and institutions that populate the EU’s climate policy landscape. It is for this reason that in the next section I will look at the social constructivist and poststructuralist strands in the wider IR-GEP discipline.

2.3 Discourse analysis and the environment

2.3.1 Language matters

To understand “climate change mitigation” as the anchoring point of reflection and analyse “how” the very concept of mitigation is thought and constituted in a given phase of the policymaking, I turn to reflexive approaches that acknowledge the construction and constitution of the social and thus environmental policy world.¹² This move enables us to consider the complexity of climate change politics as an object of study. In this respect, Richardson and Sharp (2001) argued that researchers look at constructivist approaches with

¹¹ These theoretical frameworks investigate how that order, social relations and power came to be (thus a shift from the strategies to the process) by calling them into question and opening possibilities for change (Cox, 1981, pp. 128-129).

¹² The importance of reflexive approaches in Global Environmental Politics (GEP) had been emphasised in 1994 by Litfin, at a time when mainstream theoretical approaches had downplayed the role of subjective factors and had limited to an analysis of structural (meant as mainly material) factors, with norms, ideas and knowledge being regarded as epiphenomena. She had pointed out is that a reflexive approach (that she calls reflectivist), focuses on the sources of interests and action based on the subjective understandings of actors. Thus, reflectivist approaches do not disregard material factors, but emphasise cognitive factors such as beliefs ideologies and knowledge and that social structures cannot exist independently of the process (Litfin, 1994, pp. 3-4).

interest (see Steinberg, 2001; Hoffman, 2005; Broadhead, 2002; Hannigan, 1995; Demeritt, 2001) in that these enable to make sense out of the messy and complex interactions that make up the environmental policy process (Richardson and Sharp, 2001, p. 194). At the same time, I draw a further distinction between a social constructivist perspective and a more radical poststructuralist one,¹³ and would place discursive approaches in this latter category. In fact, several scholars acknowledge that social constructivism focuses on cognitive factors such as shared and intersubjective ideas, knowledge and norms, but downplays the role of language as this does not have a role on its own and is still treated as a means to convey such norms, ideas and knowledge (Solomon, 2015; Fierke, 2002).

Conversely, the poststructuralist strand is a heterogeneous research field based on the centrality of language in constructing and shaping the social world.¹⁴ At the same time, other scholars in GEP such as Pettenger (2007) distinguish between a causal, state centric and norm-centred type of social constructivism¹⁵ and a discourse analytical perspective (Pettenger, 2007, p. 9; Cass, 2014, p.21).¹⁶ Accordingly, discursive approaches would belong to a sub-branch of social constructivism. In any case, whatever label scholars adopt, in this project I stress the centrality of language itself as a field of social practice and focus on meaning constitution and its contingency. Thus, building on the centrality of language, discourse becomes a system or structure of signification that constructs social reality (Milliken, 1999).¹⁷ Importantly, as discourse provides a framework for understanding the world, it constitutes power relations as it enables and constrains what can be thought, it embeds and excludes, defines who is allowed to speak and thus produces objects and subjects

¹³ Constructivism highlights the social construction of reality. It focuses on the role of ideas in shaping the behaviours of both state and non-state actors and its distinctiveness is based on the mutual constitution of structure and agency. Moreover, ideas are intersubjective and based on shared knowledge rather than on individual beliefs (see Wendt, 1992; Finnemore, 1996; Ruggie, 1998; Kratochwil, 1989). This means that although they constrain agents' behaviour, such structures (conceptualised in ideational terms or norms, culture and identity) are in turn reproduced and transformed through and by agents' behaviour. At the same time, identities and thus interests cannot exist prior to the interaction with structures (see Stevenson, 2012). Constructivism is not monolithic and subject to different interpretations by constructivists themselves (see Adler 1997; 2002; Checkel, 2006; Dunn, 2006).

¹⁴ For a review of the differences between discourse theorists see Rasiński 2011. For an in-depth review of different types of discourse analysis in social research see (Keller, 2012; Schiffrin et al., 2001).

¹⁵ These emphasise the role of norms meant as expectations regulating actors' behaviour and investigate the causal forces in the social construction of a phenomenon, with a focus on how and why agents create, adopt and diffuse such norms (see Bernstein, 2001; Cass, 2006).

¹⁶ Pettenger (2007) attempted to bridge this divide by pointing to how in climate change politics norms and discourses are complementary, as norms are the expression of underlying discourses which can become dominant or marginalised. By way of example, the competing discourses of green governmentality and ecological modernisation analysed by Bäckstrand and Lövbrand (2007) are the main discourses between norms of economic efficiency and domestic responsibility addressed by Cass, Pettenger, Hattori and most notably Fogel (2007).

¹⁷ This poses poststructuralism in stark contrast with positivists who treat language as a closed system of ready-made tools to convey meanings coming from the outside.

(Neumann and Dunn, 2016, pp. 47-54; Milliken, 1999 p. 229; Hansen, 2006, pp. 19-20; Oels, 2005; Doty, 1993).¹⁸ In this respect, focusing on discourse is helpful as it does not presume core properties or “essences” and does not engage with assumptions about the internal structure of identities, in that these cannot be grasped outside the language used to describe them (Solomon, 2015, p. 12). Consequently, it does not assume an individual or a state-Self like the “EU” and by starting from a basic question, “who speaks?”, it is possible to travel from the individual to the institutional level without pre-assuming who these actors are (Epstein, 2011, p. 342).¹⁹ Finally, discourse is directly linked to the production of knowledge in that it defines knowledgeable practices and delimits the range of policy options and eventually creates a truth effect that has a disciplining function in society (Doty, 1993; Milliken, 1999, p. 229; Neumann and Dunn, 2016, pp. 47-54; Hansen, 2006, pp. 19-20; Oels, 2005).

For the purposes of this project, focusing on discourse has several assets. First, a focus on discourse makes it possible to explore the performative role of language in constructing the “environment”, “climate change” or “mitigation”. For example, in previous work, discursive approaches have shown how even “nature” is a contested notion that is culturally invented and reinvented (Haraway, 1991; Beck, 1995) or how environmental politics translates into a discourse of natural resources (Luke, 1999). Second, a focus on discourse allows us to grasp how language is ingrained in practices and in the material. However, the dilemma between language and action/materiality still confront researchers.²⁰ As a result, in some

¹⁸ Discourse analysis in political science has been influenced by different philosophical traditions and these translated in different analytical framework. Leipold et al. (2019) include among the others: Laclau and Mouffe’s (1985) Discourse Theory, Roe’s (1994) Narrative Policy Analysis, Fairclough’s (2003) Critical Discourse Analysis (CDA), Dryzek’s (1997) Deliberative Discourse Analysis, Hajer’s (1995) Argumentative Discourse Analysis (ADA), and Keller’s (1998) Sociology of Knowledge Approach to Discourse (SKAD) in (Leipold et al., 2019).

¹⁹ With regard to the study of agency, identity and subjectivity some scholars argue that, despite acknowledging that in constructivism identity and interests are constructed, (Checkel, 1998; Finnemore, 1996; Hopf 1998; Katzenstein, 1996; Wendt 1992, 1999 for social constructivist literature) agency still remained unaddressed. For example, Pettenger argues that these approaches remain state centric (2007) fail to explain why certain discourses or norms have achieved more salience than alternative interpretation (Pettenger, 2007, pp.238-239). Epstein argues that through a cohesive Self borrowed uncritically from social psychology both Wendt and the psychological turn in social constructivism, the debate revolved around the choice of the most useful essentialist assumption about human nature to apply to the study of states (Epstein, 2011, p.339-341). Similarly, how to define identity, how they relate to interests’ formation, how explanatory arguments should be incorporated in the study of identity is advocated by Solomon (2015, p. 12).

²⁰ The label “poststructuralism” in IR tends to disregard the differences between the different theorists, most notably in the relationship between language, discourse, and the social world. In fact, this should not be surprising as the distinction between the material and ideational is one of the main debates in western philosophy of science. Tendentally, rationalists and constructivists converged in seeking explanatory power of ideational factors (ideas, ideals, norms, identity) as opposed to the material factors. (see Wendt 1999; Katzenstein 1996). Despite their difference in research design and conclusions, they converged in their distinction between then ideational and the material and a reading of poststructuralism as privileging the

methodologies there is no extra-discursive realm: social practices and materiality cannot be grasped outside discourse as it is through language and the system of signification that objects, subjects, states material structures are endowed with meaning and identity (Neumann and Dunn, 2016, p. 43-46, p. 62; Hansen, 2006, pp. 16-20; Milliken, 1999; Laclau and Mouffe, 1985, p. 108). As an example, I would argue that an electric car is a material object whose material and social (re)production establishes and perpetrates specific relationships between stakeholder, the mining industry, the car industry, the citizen as buyers-consumers. As a result, its meaning, – its “identity” – cannot be grasped outside discourse. The approach to discourse taken in this project is informed by what Jacques Lacan calls the “social bond” (see 3.2.2), which is an overarching socio-linguistic structure that defines and regulates our societal lives as speaking beings. Accordingly, a policy outcome such as the Energy Efficiency Directive (2012/27/EU, (EU)2018/2002), or the Renewable Energy Directive (2009/28/EC. 2018/2001/EU) or the Circular Economy package and their implementation, are discursive and material implications of a given discourse. More specifically they represent the formalisation of a rationalised, valorised and bureaucratised knowledge at work made possible by the logic boundaries of discourse (see a detailed theoretical illustration in 3.3 and empirical application in Chapter 5 and 6). Conversely, other approaches treat the discursive and non-discursive separately, for example Fairclough’s (2010) and Wodak’s Critical discourse analysis (2011).²¹ This epistemological fragmentation is not surprising if we consider that most discourse approaches build on Foucault’s theory of discourse (see next section 2.3.2), who retained himself the distinction between the discursive and the non-discursive.²² Finally, a focus on discourse allows us to answer the “how” questions, that is illuminate why some policies come about based on the definitions and the truths produced in given time and space (Hajer and Versteeg, 2005, p. 177; also Epstein, 2011). The next section will look at how discourse analysis has been

ideational. However, for most poststructuralists ideas and materiality are not meaningfully separate from each other (Hansen, 2006, pp. 19-20).

²¹ Critical Discourse Analysis rejects what Fairclough calls “discourse imperialism” (Fairclough, 2010, pp. 165-166). Therefore, CDA retains the distinction between the discursive and non-discursive reality; objects of analysis are both semiotic (discursive) and material (Fairclough, 2010, p. 206). For example, the practices of governing can occur by law and speech acts or by resorting to violence, with the latter being non-discursive, which leads to the conclusion that power is not only discourse but also material and physical (Fairclough, 2010, p. 4).

²² In analysing the conditions of appearance of an object of discourse, he pointed to the distinction between primary relations (which are independent of discourse and object of discourse, such as relations between institutions, techniques and social forms); secondary relations (relations in discourse), and discursive relations (which are neither internal to discourse, nor external to discourse but at the limit, and characterise discourse as practice) (Foucault, 1972, pp. 44-46). Indeed, as Rasinski (2011) as well as Neumann and Dunn (2016) highlight, that the way in which the non-discursive reality influences the discursive reality, while at the same time remaining independent, remains unclear and it has been in fact object of debate (see Rasinski, 2011; Dreyfus and Rainbow, 1983 for in depth methodological critique to the Archaeology of Knowledge).

employed in environmental politics with the aim of positioning this project and contribute to the existing academic debate.

2.3.2 Discourse analysis in environmental politics

Speaking of discourse and discourse analysis in environmental policy means encompassing a vast field of related approaches with a long tradition of policy analysis (Leipold et al., 2019). Some concepts that populate the language of environmental politics are continuously contested in a meaning struggle regarding their interpretation and implementation (Hajer and Versteeg, 2005, p. 176). In this respect, Feindt and Oels (2005) argue:

Taking a discursive perspective allows one to understand how ‘nature’ and ‘the environment’ are continuously ‘produced’ through environmental policy making, planning, research and development as well as through everyday practices. It also allows one to ask if environmental policy is about nature and the environment at all or rather about a redistribution and reconfiguration of power in the name of the ‘environment’ (Feindt and Oels, 2005, p. 163).

In this section I place an emphasis on a dominant research strand that stresses the socio-cultural meaning structures and builds on Foucault’s theory of discourse (1972; 1977; 1979).²³ Within this strand, there are multiple valuable contributions that emphasise the importance of discursive practices as a means of establishing power relations via knowledge.²⁴ For example, in her case study on the ozone discourses leading to the Montreal Protocol, Litfin (1994) challenged the de-politicised and neutral conceptualisation of science approaches such as Haas’ epistemic community (Haas, 1992) and reconceptualised power so that it encompasses knowledge by drawing upon Foucault’s disciplinary power and regimes of truth (Foucault, 1980; 1977; 1972).²⁵ Thus, knowledge is not simply a body of

²³ Foucault focused on the conditions for the formations of the statements qua unit of discourse and on the relations between statements and interest in discontinuities, ruptures and limits.

²⁴ Leipold et al. (2019) distinguish another important strand of DA strand, which builds on Habermas where discourse is seen more as processes of argumentation and deliberation (Habermas, 1996) and policy as a deliberative practice (Drizek, 1997; Fischer, 2003; Hajer & Wagenaar, 2003; Vanhulst & Beling, 2014; Audet, 2016). However, they mention other discursive approaches in environmental policy that have been influenced by specific sociolinguistic approaches concerned with power and ideology, for example Fairclough CDA (2010) (Leipold et al., 2019, p. 448). Other approaches like Discursive Agency Approach (DAA) attempt to merge the post positivist approach with critical rationalist frameworks. Moreover, some other perspectives derived from sociology and political science continue to influence environmental DA (Leipold et al., 2019, p. 449).

²⁵ In *Discipline and Punish* (1977) “truth” becomes a matter of purely linguistic representation (Neuman and Dunn, 2016, p. 44; Shapiro, 1981, p. 218; Hansen, 2006, p. 16). For example, the prison is the place which constitutes both the identity of society as well as the prisoner inside, in the separation and constitution of what is good and civilised thorough the bad and barbaric.

objective facts. Rather, what is accepted as knowledge is involved in questions of framing and interpretation, with these in turn being related to perceived interests (Litfin, 1994, p. 6). As a result, a focus on science as discourse and not as the neutral activity of scientists shows how science's contradictions and uncertainties can be manipulated and exploited by politics (Litfin, 1994, p. 4;186). Similarly, Hajer (1995) showed how policymaking is the redefinition and reframing of solutions to environmental issues. In his case study of acid rain regulation in the UK and the Netherlands in the late 1970s, he analysed how the discourse of "radical restructuring" had been delegitimised in both cases in favour of "ecological modernization", on the grounds that ecological modernisation is compatible with existing political and economic structures and seeks for business opportunities in terms of innovation and the development of new markets (Hajer, 1995, pp. 31-36). In a seminal paper, Oels (2005) links the articulations of climate change to shifts in modes of governance based on the Foucauldian concept of governmentality.²⁶ In her survey of the literature on environmental discourses and by drawing on pre-existing categories such as Luke's (1999) green governmentality as manifestation of biopower and Hajer's ecological modernization, she argued that changes in climate change discourses and practices in Western industrialised countries in the 1980s are to be understood in terms of a shift in governmentality from biopower to advanced liberal government. Within this framework, a shift in governmentality produces a different type of "climate change". Hence a focus on denaturalisation and disruption of the governmentality at play is advocated (see Shapiro, 1992) to identify both limitations in terms of policy choices, for example techno-fixes of energy efficiency purely assessed on a cost-benefit character, and alternative strategies.²⁷ Finally, Epstein (2008) applied a Foucauldian discourse analysis of power dynamics and interests in the emergence of an anti-whaling discourse (Epstein, 2008). She focused on how environmentalists produced a new discourse on whaling that produced in turn new subject positions, namely from whaling states to anti-whaling states, over an older whaling discourse that was promoted for political, military and economic purposes (Epstein, 2008, p. 5, p. 13, p. 94).²⁸

²⁶ Governmentality refers in Foucault to the government of a specific era, that is characterised by biopower; the process by which state institutions transform to support a governmentality based on biopower; a general analytical framework to distinguish between different governmentalities (Dean, 2003, p. 116 in Oels 2005 p. 189).

²⁷ For example, Oels argues that "Forging citizen consumers in the Cities for Climate Protection campaign may pre-empt active citizen involvement in climate protection measures that go beyond efficiency measures. It may even undermine the goal of the campaign as such, given that a focus on efficiency measures has been suspected of triggering increased energy usage" (Oels, 2005, p. 204).

²⁸ Other examples of Foucauldian approaches include, Winkel et al. 2011 review on the use of Foucauldian concepts in forest policy analysis. Moreover, Humphreys (2009) adopts a Foucauldian approach to analyses the construction of the neoliberal discourse in the forest policy area and argues that in contrast with what often asserted, neoliberalism depends on a strong state introducing market-based solutions so that to create a political space by private sector.

This latter aspect on “subject positions” needs further clarification and perhaps explains this project’s major contribution to the literature. The Foucauldian approaches reviewed above tend to focus on competing discourses and on meaning struggles, identifying and analysing the prevailing discourse (see Solomon, 2015, pp. 18-19). This argument seems to be confirmed by the extensive review assessment conducted by Leipold et al. (2019) which assessed the prevalence of ecological modernisation storyline as the main discursive frame versus other counter-discourses (Leipold et al., 2019, p. 457). However, they argue that further assessments and contributions could help understand factors of stability and change in discourse (Leipold et al., 2019, p. 457). In their view this means engaging with concepts of power, materiality and agency to distinguish between the evolution of discourse and effects of discourse,²⁹ and to develop a debate on what mechanism is able to affect status quo power relations or give agency to marginalised groups (Leipold et al., 2019, p. 457). Building on this, while my Lacanian-based discursive power-knowledge relationship is in line with that of Foucault, it places however a greater emphasis on language and signification (see 3.2.1).

Furthermore, it can be argued that the subject’s centrality constitutes its main original point. In fact, although the achievements of Foucauldian discursive approaches cannot be disregarded, scholars agree on the fact that these downplay the role of the subject, as the latter is constrained and subjugated to power, which in turn hinders the possibility of resistance and change (Bracher and Alcorn, 1994, pp. 29-35; Epstein, 2011, p. 338; see also Butler, 1997; Adler, 1997). This is illustrated by the fact that, with the exception of Litfin who, on the basis of her interpretation of Foucault, claims that one should not be misled by Foucault’s rhetoric in that his theories need subjectivity, as actors do not act as autonomous, but in a contingent subjectivity (Litfin, 1994, p. 23), other scholars felt the need to integrate Foucault’s theory of discourse. For instance, Hajer felt the need to integrate Foucault’s discourse with the theoretical insights provided two social psychologists, i.e. Harré and Billig, who in Hajer’s view contain some corrections to Foucault’s discourse theory, given their focus on social interactions in actual speech situations (Hajer, 1995, pp. 52-53). Similarly, Epstein (2008) made use of a mixed theoretical framework, including Pierre Bourdieu’s practice theory, to illustrate different aspects of the antiwhaling discourse.

²⁹ In my approach I incorporate both language and materiality in their socio-ontological role and thus do not distinguish between evolution of discourse and effect of discourse.

As a result, I contrast these with a theory of discourse that retains a more active role of the subject, without falling into the opposite fallacy of a “free” unconstrained agent. As explained more extensively in 3.2.3, the Lacanian discourse-subject perspective can be understood by considering the paradox of language. It is the activity of speaking that always produces an excess of meaning, perceived like a loss in the enunciation, as the socio-linguistic order can never fully complete this subject and full meaning is always deferred.³⁰ As a result, by emphasising a constitutive lack rather than the essence of the individual psyche, Lacan avoids the essentialist reductionism of the social to the individual level, as the subject attempts to fill this lack through socio-political objects of identification, that is with available social discursive representations providing them with a stable identity (Stavrakakis, 1999, pp. 28-36). Importantly, this produced excess-loss can either disrupt signification and produce a change or can be neutralised and positively integrated into signification. Hence, it is the mastering of this ontological residue of signification that enables to account for stability and change, which is more evident in Lacan’s theory of the four discourses (see 3.3), formalised in the two status quo discourses and the two discourses of rupture and change. Lacanian approaches have emerged in IR and have been highlighted theoretically by Edkins (1999), Epstein (2011), Tomšič and Zevnik (2016) and more recently in practice by Salomon (2015). However, in environmental politics they remain largely underdeveloped, and some important contributions regard the Lacanian concept of Fantasy (see 3.2.4) to explain the myth of “decoupling”³¹ (Fletcher and Rammelt, 2017) and the Lacanian notion of symptom as the “return of the repressed” to climate migration (Bettini, 2019). It is for this reason that the next Chapter develops more extensively the theoretical framework underpinning the methods and the empirical analysis of this research project.

2.4 Conclusion

This chapter has provided a brief review of the environmental politics research landscape. It started by emphasising the complexity of this object of research in that climate change itself intertwines with other environmental and social phenomena. Similarly, its “governance” involves a multitude of actors and intuitions across multiple levels of analysis. As a result, I illustrated how traditionalist dominant approaches such as neoliberal institutionalist approaches are preoccupied with finding causal explanation to a given bargaining outcome or a given policy outcome. At the same time, despite these rationalist approaches have been

³⁰ As Epstein observes, in the Lacanian perspective, the process of inscription of the subject in language is not based on the acquisition of a positive, distinctly human, neurological capacity of speech as argued for example by Noam Chomsky (1981) (Epstein, 2011, p. 336).

³¹ The idea of separating growth from environmental pressure (see Chapter 6).

juxtaposed in IR by a multitude of other approaches that provide more sophisticated analysis of power, structure, agency, they are still predominant in the study of the EU's climate governance, preoccupied with leadership, integration and energy security.

As these approaches do not question how the social order came to be and as my approach takes "climate mitigation" as its anchoring point of reflection, I emphasise the need to position my research within those approaches highlighting the construction of the social world. Hence, in the second part of the chapter I highlighted the main contribution of discursive approaches in environmental politics. Within this framework, I argued that a focus on discourse considers the performative role of language as a medium of power relationships, reflects on how language is ingrained in practices, and ultimately allows us to answer "how" questions. As a result, I illustrated how discourse and discourse analysis in environmental policy encompass a vast field of related approaches. I have given relevance to a research strand that focuses on the socio-cultural meaning structures and builds on Foucault's theory that sees discourse as a means of establishing power relations through knowledge. Thus, for over two decades discursive approaches have shed light on the relationship between power and knowledge in the field of environmental science, on the meaning struggle between the competing storylines of radical restructuring and ecological modernisation, on the production of a new form of climate change governmentality and on the creation of a new antiwhaling state discourse.

At the same time, I argued that while my Lacan-based discursive power-knowledge relationship is in line with that of Foucault, it diverges by placing a stronger emphasis on the foundational role of language and signification in society. Furthermore, its main contribution is provided by Lacan's theory of the subject that allows for us to account for agency. In fact, although I do not disregard the achievements of Foucauldian discursive approaches, scholars agree that these downplay the role of subject, as the latter is constrained and subjugated to power, which hinders the possibility of resistance and change. Conversely I maintained that a Lacanian approach could help understand mechanisms of stability and change in discourse by engaging with concepts of power, and agency precisely because it retains the central role of the subject which can be understood only by considering the paradox of language. As outlined in detail in the next chapter, the socio-linguistic order can never fully complete the speaking subject and the activity of speaking produces an excess of meaning, perceived like a loss. Hence by emphasising a constitutive lack rather than an essence of the individual psyche, Lacan's theory of discourse does not collapse the social to the individual level as the

subject constantly attempts to fill this lack through socio-political objects of identification, that is with available social discursive representations. By the same token, this produced excess-loss can either disrupt signification and produce a change or can be neutralised and positively integrated into signification. Therefore, it is the mastering of this excess that accounts for stability and change. For this reason, the next Chapter outlines the theoretical underpinning of this project, through a framework that builds on Jacques Lacan's theory of discourse.

Chapter 3. Conceptual framework

3.1 Introduction

This chapter provides a conceptual framework that elaborates on Jacques Lacan's theory of discourse and discusses its relevance for the empirical analysis of the EU's climate mitigation action. My aim is to introduce a degree of familiarity with abstract terms that characterise Lacan's theoretical work, such as "signification", "discourse", "subject", "lack", "jouissance". First, I emphasise the logical prioritisation of the signifier, that is the word as form, and explain that, for Lacan, meanings do not exist independently but are produced from the sliding of signifiers according to the dual dimension of metonymy and metaphor. This interplay of signifiers is not infinite as some signifiers are more prominent than others and are able to bring the endless movement of signification to a halt. Lacan calls this anchoring point the Master Signifier, which is what fixes the chain's semantic ambiguity and establishes seemingly consistent significations that provide the necessary "illusion" that reality is intelligible. As I will explain, it is this anchored signifying chain that provides the subjects with an overarching socio-linguistic structure that allows them to establish and maintain societal relations, which is what Lacan means by discourse. From this perspective, I illustrate that discourse and subjectivity cannot be clearly separated, as they presuppose each other. Indeed, on the one hand the speaking subject presupposes symbolization to create sense and more widely to establish and maintain these societal and climate relationships. On the other hand, the EU's policymaking as discourse can only be maintained through the speaking subjects, whether EU institutions representatives, different stakeholders, or citizens that become representatives of and defined by that structure.

At the same time, one should not infer that the subject is completely over-determined by a symbolic structure. In fact, the specificity of the Lacanian subject can be understood by considering what I might refer to as the paradox of language. More precisely, the activity of speaking always produces an excess of meaning, perceived as a loss in the enunciation, as the socio-linguistic order can never fully complete the subject and conclusive meaning is always deferred. Lacan explains this excess of meaning through what is arguably his most original conceptual tool, the *objet petit a*, which stands for the lack that stimulates desire and embodies the impossibility of full satisfaction. The implication here is that the search for enjoyment and plenitude results in a state of paradoxical dissatisfaction that Lacan captures by reference to the Real of *jouissance*, which in his view is consubstantial with the human

condition³². *Objet a* as (libidinal) remainder of signification carries a liberating potential that can either disrupt signification and generate the conditions for an alternative signification or, on the other hand, be positively integrated into signification. The effect of this remainder is rendered visible in the blind spots and contradictions that cause ruptures in discourse and make it look partial and inconsistent. In this respect, Lacan's theory refuses any essentialist notions of subjectivity and emphasises instead the socio-political production of an incomplete subjectivity. By emphasising a constitutive lack rather than the positive substantiality of the human psyche, a Lacanian approach allows me to avoid collapsing the social onto the individual level, as the subject attempts to fill this lack through available social discursive representations providing them with a stable identity.

After introducing the Lacanian subject, I elaborate on the three interrelated registers of discourse: the Symbolic (the socio-linguistic structure), the Imaginary (the individual's mental representation) and the Real (the realm of *objet a* and *jouissance*) and how these are held together by the subject and manifest themselves in enunciation. Distinguishing between these three dimensions helps me to set out the directionality of the type of Lacanian discourse analysis that will be outlined in the following Chapter. Finally, in the second part of the chapter I elaborate on Lacan's theory of the four discourses, which describes different social bonds based on the social effect they produce. These can be regarded as theoretical guidelines for understanding the EU's climate mitigation policy, in that they take into consideration lacking but socially produced subjects, split between the pursuit of climate objectives and a signifying structure of knowledge defining them and regulating their thoughts and actions. For example, I explain how the discourse of the Master (together with its Capitalist variant) and of the University can be seen as the two dominant discourses of power and hegemonic knowledge, while the Hysteric and the Analyst discourses embody instances of challenging and potentially change. Within this framework, I emphasise the opposition between the University discourse of modern science and the Hysteric discourse. These can be seen as the discourses of two opposite sciences, one that embodies an alleged neutrality but is in truth guided by unconscious authority, and one that embodies a true scientific enquiry that does not hide paradoxes and contradictions. In this regard, the opposition between the University discourse and Hysteric discourse constitutes a point of reflection on the EU's climate's "evidence-based" knowledge. Lastly, I explain the parallel between the University and Capitalist discourses in relation to how they deal with the

³² This project does not focus on questions about gender. However, theoretical and empirical studies of the "Lacanian subject" within IR might benefit from a feminist critical theory perspective.

remainder of signification, that is to say, by positively integrating it into signification and turning it into a consumption object or commodified knowledge. This can be elucidated through a reference to *jouissance* and the vicious circle of dissatisfaction it stands for. The chapter, then, explores how Lacan's psychoanalytic theory provides a useful framework for reflecting on the nature of the EU's climate transition and on what constitutes potential. This will be further elaborated on in Chapter 4 through a practical exemplification.

3.2 Jacques Lacan's theory of discourse

3.2.1 The priority of the signifier

Before fleshing out the Lacanian concepts used to investigate the EU's climate mitigation action, one main aspect must be clarified. Jacques Lacan is known for his psychoanalytic theory and practice. However, it is beyond the scope of this research to outline Lacan's entire clinical work. In fact, this research project focuses on his theory of discourse and therefore builds on his late contributions between the mid-1960s and early 1970s, where his reflections shifted towards a more explicit social critique.³³ Nevertheless, it is impossible to speak of the Lacanian notion of discourse without addressing the centrality of language in his overall theory of subjectivity, as it was developed in the earlier stages of his research. Addressing the centrality of language means understanding what "prioritising the signifier" amounts to and how meaning is produced through Lacanian lenses. In order to explain this, I need to briefly show how Lacan drew on Ferdinand De Saussure's theory of linguistic signs.

According to De Saussure (1959), the constitution of the linguistic sign is a two-part process, called signification: the signifier is the word in its pure form (the mark or sound). For example, climate change as a sequence of letters or sounds c-l-i-m-a-t-e-c-h-a-n-g-e is a signifier. Language is thus a sequence of signifiers. If the signifier is the form, the signified is the content – the meaning (or meanings) of that signifier. For example, in the case of climate change, one of the meanings can be "the excessive warming of our planet due to anthropogenic greenhouse emissions". For De Saussure the relation between signifier and signified in the process of signification is that of two equivalent levels (De Saussure, 1959), meaning that form and content exist independently. More specifically, the relationship between the two, that is what links c-l-i-m-a-t-e-c-h-a-n-g-e to "the excessive warming of

³³ Lacan was inevitably immersed in the cultural environment of that time, where the importance of discourse was highly explored in French philosophy, as it can be seen in the lifework of Michel Foucault, Jacques Derrida and Gilles Deleuze, only to mention a few.

our planet due to anthropogenic greenhouse emissions”, is arbitrary in the sense that there is not a natural connection between the two.

De Saussure’s account of this relationship has been subjected to critique (see Stavrakakis, 1999, pp. 22-26 for a summary on such critique). Lacan himself departed from it by affirming the priority of the signifier over the signified. To be precise, this priority of the signifier must be intended as logical rather than chronological (Evans, 1996, p. 189). Hence, the signified is not merely eliminated.³⁴ Rather, the signified is produced as an effect of the play of signifiers, according to the dual dimension of metonymy (concatenation, combination of one term with another) and metaphor (substitution of one term with another). In short, meanings do not exist independently but are produced by the sliding of signifiers. However, as this play of signifiers is potentially open-ended and infinite, for signification to emerge there must be a quilting, or halting operation.

This means that some signifiers are more prominent than others and are able to halt the endless sliding of signification. These anchoring points retroactively fix the signifying chain, and thus its semantic ambiguity, by giving it apparent stability and the illusion that reality is consistent (Fink, 1999; Klepec, 2016). Lacan calls this anchoring point the Master Signifier, represented by the matheme S1. This Master Signifier S1 is what establishes and produces seemingly consistent significations and therefore power relations. Hence, the rest of the signifying chain, represented by the matheme S2 and representing “knowledge”, depends on this dominant signifier. For example, it is the anchoring function of the Master Signifier in representation that naturalises the meaning of signifiers such as *climate change*, *mitigation*, *ambition*, *efficiency* through which we understand, establish and maintain our societal, economic and thus climate relations. More specifically, the Master Signifier can be recognised in the text as that “special word” that, as it were, makes things work, holding authority over the entire field of signification. For example, in 5.2.3, the climate action mitigation knowledge – firstly presented in a spirit of “free enquiry”- is in fact put to work (thus represents knowledge S2) in relation to a command of competitiveness, accumulation an ultimate growth, where the role of the “consumer” cannot be challenged. Therefore, the relations between signifiers as overarching sociolinguistic structure is what determines the social link that keeps our intersubjective societal relations together. In this regard, “social link” is for Lacan another name for “discourse” and it is to this that now I turn.

³⁴ This view of languages opposed to an expressionist one, where concepts exist in a pre-verbal state before being expressed through the material element of language, that is the signifier (Evans, 1996, p. 189).

3.2.2 Discourse

The previous introduction to Lacan's understanding of the process of signification helps us to appreciate that the relationship between signifiers – the chain of signification – constitutes an overarching socio-linguistic structure that allows us to establish and organise our societal, economic, and also climate relations. According to Lacan, discourse is the signifying structure that shapes, sustains and forms our lives as “speaking beings” (*parlêtres*) (Lacan, 2007, p. 13). This powerful linguistic structure affects and conditions the entire life of the speaking subject, in actions, affects, thoughts, customs and daily praxis (Klepec, 2016, pp. 115-118). This is the reason why Lacan refers to discourse as “social bond”, or “social link” (translation from the French *lien social*).³⁵ As Lacan explains:

Through the instrument of language, a number of stable relations are established, inside which something that is much larger and goes much further than the actual utterances (enunciations) can be inscribed. There is no need of the latter for our conduct, possibly for our acts, to be inscribed within the framework of certain primordial statements (Lacan, 2007, p. 13).

From Lacan's words, we understand that the discourse can clearly exist without words, but it subsists in those fundamental relations that need language to be established and maintained. In this respect, the discourse has a formative function, as there is no pre-discursive or extra discursive reality, but every reality is defined discursively. In this respect, as we shall see in 3.3, Lacan envisages four main social bonds. This understanding of discourse allows me to establish a link with the existing literature that treats discourse in terms of agency and materiality, in that we cannot make sense of the world outside language (see 2.3).

On a preliminary basis we can observe that if the discourse has a formative function and every reality is defined discursively, the subject has no choice but to resort to sociolinguistic networks of signifiers available to them in order to create sense and more widely to establish, maintain and regulate any intersubjective societal relations,³⁶ including a relationship to

³⁵ Klepec (2016) observed that “discourse” went from a purely linguistic connotation in the 1950s to a wider concept of social bond.

³⁶ Lacan calls the Symbolic, which one of the three interrelated registers of discourse (see 3.2.5).

climate and climate change. Lacan says that the subject is structured in relation to a socio-symbolic network that constitutes for them what Lacan calls an “Other”:

The Other is the locus in which is situated the chain of the signifier that governs whatever may be made present of the subject—it is the field of that living being in which the subject has to appear” (Lacan, 1998, p. 203).³⁷

If on the one hand the real subject presupposes symbolization to make sense and establish and maintain societal relations, on the other hand the discourse presupposes a real speaking subject. For example, the EU’s policymaking process manifests itself as a multi-institution, multi-stakeholder and multi-level process. This includes how EU officials work in their offices and interact with actors inside and outside the European headquarters. Any policy document such as the long-term strategy (COM (2018) 773 final), the impact assessments, inter-departmental negotiations within the EU Commission and stakeholder consultations, and the interinstitutional negotiations with the Parliament and the Council that inform these policy documents can be conceptualised as societal relations that are made possible by an overarching socio-linguistic structure. In short, the discursive practices of consulting and negotiating, drafting, reporting, assessing across sites, events and institutions, are discursive instances in that they are presupposed by the different speaking subjects as what has to be done to organise and maintain given climate policies. At the same time this multi-institution, multi-stakeholder and multi-level structure can only be maintained through the speaking subjects – whether EU representatives, the stakeholders, the citizens – who are all bound together as representatives of this structure and all defined by this structure.

Thus, in contrast with the view that in a globalised world there are no strong social links “and that there are only more or less dispersed individuals able to make decisions and free choices” (Klepec 2016 p. 116), I can point to the fact that we cannot function without a social link, in our case a socio-political signifying structure that establishes and perpetrates specific socio-symbolic climate relationships. From this perspective, discourse and subjects cannot be clearly separated. We cannot draw a line of separation between the inside of the subject and the outside of the discursive world (Tomšič and Zevnik, 2016, p. 5), as they presuppose

³⁷ In truth, the Other is a fiction sustained dialectically by itself and by the socialised subject. Nothing is really opposed to the Other (Lacan Seminar VI), to language, to its symbolic world. In Itself, it is void (Pavón Cuéllar et al., 2010, p. 257).

each other. However, entering the medium of language has consequences for the speaking being and it is to the specificity of the Lacanian subject that now I turn.

3.2.3 The Lacanian subject as the subject of the enunciation

The debate conducted so far has shown that discourse and subject are two different entities, but they presuppose each other. The social link founded on language, that is “climate action” as a set of policymaking discursive practices, presupposes “really-existing” subjects, but the speaking beings such as EU representatives as regulators, stakeholders and citizens, must use language in order to sustain (climate) societal relations. Therefore, we as speaking beings cannot escape the Symbolic order; we cannot make sense outside language:

It is from the fundamental relation (the relation from one signifier to another signifier) that the subject emerges, via the signifier which represents this subject to another signifier (Lacan, 2007, p. 13).

The question “who utters the sentence” must be considered carefully when we apply a Lacanian framework to empirical political research. The one who utters that sentence is not the subject itself but the subject insofar as s/he speaks the discourse of the socio-symbolic fiction (the Other) to which s/he is bound. For example, an EU official is expected to utter a sentence in the name of the official policy line of the EU as well from a place, for instance the EU Commission as an institution.³⁸

The Lacanian subject can only be understood by considering the paradox of language. More to the point, language comes from this fictitious yet necessary socio-symbolic network (the Other), but the inevitability of choosing language, namely of identifying with language, generates an irreducible lack or cut within subjectivity, which originates from the priority of the (meaningless) signifier over the signified and the nature of the symbolic order (Lacan, 1998, pp. 204-205). In simple terms, this means that the act of speaking always produces an ambiguity of signification, which is inerasable and defines us as humans. This ambiguity is perceived as loss (*perte*) in the enunciation, as the socio-symbolic order can never fully complete the speaking subject. Slavoj Žižek claims that the Symbolic, that is language, opens up the wound it professes to heal (1993 p. 180). It is because of this ontological lack as

³⁸ Lacan makes the example of the diplomat: when diplomats speak to each other they are purely representatives. They represent something whose signification is beyond their persona. In their conversations and interactions, they register what the other person conveys as pure signifiers, not what that man or woman is (Lacan, 1998, p. 220).

residue of signification that the signified (meaning) slips metonymically across signifiers and full signification is always deferred (Stavrakakis, 1999, pp. 28-29), which is ultimately how this loss is perceived. Lacan explains this excess of meaning perceived as loss with a small object, the *objet petit a*, that is a conceptual tool that stands for the unattainable cause of desire, with its liberating potential (Lacan, 2007, pp. 13-18), where “liberation” refers to the possibility of a paradigm change. We can think of this object as cause of a never-achieved state of wholeness, fullness, or plenitude. This small object, which stands for the lack that triggers desire, embodies the impossible “full satisfaction” that is lost while enunciating, and which results in *jouissance* as paradoxical (dis)satisfaction (Stavrakakis, 1999, p. 49-53). Hence, entering the Symbolic realm of language (the linguistic system) entails the loss of *jouissance* or, rather, the achievement of *jouissance* as loss, and, ultimately, the endless deferral of the promise of full satisfaction.

As we shall see when tackling the theory of the four discourses (3.3), and more clearly in the empirical chapters of this thesis, it is precisely the question of how this lack is mastered that leads us to reflect on the nature of the EU’s climate transition and on what constitutes potential change. Indeed, from a Lacanian viewpoint this meaningless remainder generated by symbolisation is the only access we have to change via disrupted signification. The alternative is, strictly speaking, conservative: lack is neutralised and integrated within the dominant type of signification, for example by being turned into commodified knowledge and consumption objects (see 3.3). It is for this reason that Lacan speaks of a split, barred, alienated subject, represented by the matheme \$ (Lacan, 2007, p. 13). The split here refers to what is produced between the socio-symbolic structure and the ever-present excess that makes “wholeness” impossible.³⁹ In fact, Evans explains (sic):

The very word ‘I’ (Je) is ambiguous; as SHIFTER, it is both a signifier acting as subject of the statement, and an index which designates, but does not signify, the subject of the enunciation. This is how the subject is divided between these two levels, namely in the very act of articulating the I that gives the illusion of unity (Evans, 1996, p. 56).

With this emphasis on the speaking being and its state of impossibility, it can be argued that this lack is what holds discourse and subject together, and the Lacanian subject becomes the subject of the enunciation. Statement and the enunciation must be distinguished: the former

³⁹ Rather, as the subject is the locus of an impossible, inconsistent identity (Stavrakakis, 1999, pp. 13-17), I can say that ultimately the subject coincides with this inconsistent object, it is identical to his/her lack.

roughly represents language as an abstract system of signs – the socio symbolic structure available to us; while the latter represents the speech produced in concrete situations which carries the excess of meaning. In this respect, the EU representatives or stakeholders as Lacanian subjects are the speaking beings that, in the pursuit of given climate objectives, are caught in a signifying machine determining the climate relations available to them⁴⁰ along with the excess of meaning thereby produced. This residue is rendered visible in gaps, weaknesses, and blind spots that “crack” discourse and make it look always partial and inconsistent. This aspect constitutes most part of my analysis in Chapter 5 and Chapter 6. In conclusion, we resort to language to make and create sense, to constitute ourselves but every meaning brings with it a fundamental ambiguity, which is precisely where unconscious drives inscribe themselves:⁴¹

The unconscious is constituted by the effects of speech on the subject, it is the dimension in which the subject is determined in the development of the effects of speech, consequently the unconscious is structured like a language (Lacan, 1998, p. 149).

In the above quote, we see that Lacan ascribes an “ex-timate” (internal *and* external) linguistic dimension to the unconscious, and reinterprets it in conjunction with the socio-linguistic system that constructs and determines the subject as a *parlêtre* (speaking being) and thus forms our social reality (Tomšič and Zevnik, 2016, p. 2; Evans, 1996, p. 220). It is for this reason that I can say that discourse and subject are determined dialectically,⁴² with the Lacanian subject being the split subject of the enunciation, the subject of the unconscious produced by language as a surplus/lack of sense.

3.2.4 The relevance of the Lacanian subject-discourse relationship in social research

The discussion conducted so far aimed to establish subjectivity as lacking in its, by definition, incomplete structural relation with language. However, this means that the social linguistic structure, the socio-symbolic Other, is itself partial and lacking as it cannot complete the subject. Within this framework, the relevance of Lacan’s theory of social analysis emerges when we consider the socio-political production of subjectivity and the

⁴⁰ These include all the consultations, negotiations, documents drafting, target setting, modelling activities, policy implementation, technology development, new jobs, feedback and reporting mechanisms, future policy revision, new policy processes.

⁴¹ In this ontological residue of signification, we see more clearly how Lacan integrated the structuralist linguistics of Ferdinand De Saussure, and Roman Jakobson with Freud’s psychoanalysis by providing a new, original theory of the unconscious.

⁴² Lacan elaborated his own original theory of discourse by drawing on Hegel’s and Marx’s dialectical ontology.

refusal of any essentialist and simplistic definition of subjectivity (Stavrakakis, 1999, p. 14; Epstein, 2011, pp. 337-338). The Lacanian subject is not identical with the un-divided and self-transparent individual, or the conscious actor of most social and political research, which is an individual with a fixed identity that is more or less able to act rationally and autonomously on processes and structures (see 2.2).

Instead, by conflating dialectically subjectivity and lack, Lacanian theory avoids the essentialist reductionism of the social to the individual level, while also avoiding postmodern relativism. This is because the subject attempts to fill this lack through socio-political objects of identification, in the form of available social/discursive representations which provide them with a stable (yet by definition ambiguous and fragile) identity. Hence, what happens at the level of the individual is a productive circular play of lack and identification on the level of representation: the subject attempts to cover this lack through symbolic identification (Stavrakakis, 1999, pp. 34-36). For example, the subjects interviewed and observed for this research seem to be split between the powerful linguistic structures defining them and their desire to come up with an effective climate action. This means that, on the one hand, the interviewed subjects would seem to be driven by a willingness to bring about a system change in the context of a new social bond. However, on the other hand these subjects are caught in the signifying chain that defines them and their climate relationships through the shared socio-symbolic structure appears visibly inconsistent. Hence, these available social/discursive representations can manifest for example as increased regulatory frameworks, better modelling practices, as “green” technologies, as energy efficient or renewable consumption objects, increased recycling rates (see Chapter 5 and 6). In all these cases, we see the split subject arising as a consequence of the signifier in all the different and inconsistent forms and shapes that *energy efficiency* and *renewables* take in the enunciation, including inconsistencies and gaps that embody excess/loss of signification.

At the same time, this does not mean that subjects all believe this discourse or are convinced by discourse. As Morrison (2003) argues:

The crucial point is that it is not that the subject, who internalizes [the] discourse, is necessarily intellectually convinced by it, but that this subject desires to believe [the]

discourse in order to achieve certainty (by suturing the social) and avoid the anxiety of the gap between the Symbolic and the Real (Morrison, 2003, p. 278).⁴³

This suturing function pertains to what Lacan calls fantasy (*Fantasme* in original). Fantasy is a construction located in the socio-symbolic order that promises to eliminate lack and to cover the impossibility of full representation by achieving a given desired object. However, its realisation is always deferred and lacking: every fantasy formation is articulated around the *objet petit a* (object qua lack) and this missed realisation is exactly what sustains the promise of fullness, it functions as support for desire to identify with (Stavrakakis, 1999, pp. 46-51; Fletcher & Rammelt, 2017). For example, in Chapter 6 I show how *circular economy* appears like another policy carriage in the hands of a couple of departments within the EU Commission (DGs), rather than being spoken as a new anchor that would leverage a shift around which our socioeconomic relationships have to be re-thought. This social fiction is supported by the fantasies of standardising practice, recyclable products such as car batteries, ecodesign qua energy efficiency, new business models that promise to cover the impossibility of discourse and provide instead a semblance of “circularity” (see 6.7). In the next section I will show how this dialectical relationship between discourse and subject can be finally understood by referring to the three interrelated registers of discourse. This distinction is useful in conceptualising what I have argued so far, but also for the Methods chapter, where I outline my operationalisation of a Lacanian-inspired discourse analysis for conducting field research.

3.2.5 Symbolic, Imaginary, Real: the three registers of discourse

To sum up the discussion so far, in Lacanian terms “discourse” can be defined as the social link founded on language and regulating the speaking beings’ intersubjective relations. When we adopt a Lacanian perspective, we do not merely speak a language but are rather spoken by that language, and as a consequence a surplus of sense is produced which, ultimately, identifies the subject as lacking. More precisely, resorting to an existing signifying structure to communicate introduces lack and thus also the desire to fill this lack, which, in the final analysis, undermines any sense of fullness we might seek. This can be better understood by briefly referring to the three Lacanian registers that are held together by the subject, insofar as they are presupposed in enunciation.

⁴³ The Symbolic and the Real, the realms of the socio-linguistic net and the realm of *objet a* and *jouissance*, respectively (see 3.2.5).

First, we have the Symbolic, which is the socio-linguistic network in which we are embedded and to which we resort in our intersubjective relations. For example, if I observe or interview an actor on the EU's climate action, the signifying chain they deploy, which is made of "knowledge", "modelling" and "targets", or "efficiency", is the socio symbolic network that forms our way of understanding and speaking of climate policy. The second register is the Imaginary, the realm of meaning, that is our individual mental representations of a given signifier. Mental representations can be similar, but not identical for everyone (Pavón Cuéllar et al., 2010, p. 2). For example, the signifier *renewables* can produce different mental representations: I can think of solar panels (the technology) or even a type of energy (solar energy), while my interviewee can think of wind turbines (the technology) or a different type of energy (wind energy). While I am able to know my own Imaginary, I cannot be sure of the Imaginary of the person I address. In any case, even though it is not possible to know the exact mental representation, meaning is reduced to sense, a content that is similar but not identical. For example, in relation to *renewables* this would mean that I consider them as a "set of energy sources that can be naturally replenished". Finally, there is the Real, which is non-symbolisable and yet produced by the Symbolic (language) the moment the subject speaks and enters the medium of language. The Real is the realm of *objet a* and *jouissance*, that which escapes language representation in that it is produced by discourse the moment the subject speaks, as a surplus, nonsensical remainder. An example of that can be detected whenever representation breaks down through gaps, weaknesses and contradictions that make a seemingly consistent discourse fractured and inconsistent, as will be shown empirically in Chapter 5 and 6.

Distinguishing between these three interrelated registers of the Symbolic, Imaginary and Real helps to better understand the relationship between subject and discourse, as these three realms are all held together by the subject and manifest themselves in the moment of the enunciation. At the same time, distinguishing between these three realms sets out the directionality of the Lacanian discourse analysis that will be outlined in Chapter 4. As a result, the starting point of the analysis becomes the shared socio symbolic network that establishes and maintains these socio-political, climate relationships during the enunciation (see 4.2). This way I can closely look at how the battery of signifiers metonymically unfolds, and how "climate change", "mitigation", "energy efficiency", "renewables", "circular economy" are bound together. In turn this makes it possible to observe the effects of the structure, that is the Real, on the subjects (see 4.4). However, before turning to the Methods chapter, one last conceptual step must be addressed. Discourse and subject have been

regarded so far in general, ahistorical terms, as if there is only one possible social bond and one subject. In fact, according to Lacan, there are four possible social bonds. This claim corresponds to the historicization of discourse articulated by Lacan especially in his seminar XVII (1969-70), which, together with previous one, constitutes the most socially and politically explicit part of his entire oeuvre, and which is therefore particularly relevant for this project.

3.3 The theory of the four discourses

3.3.1. The fixed framework and the four discourses

In seminar XVII (1969-1970) Lacan elaborated his theory of the four discourses, four conceptual apparatuses rendered through a graphical representation. Introducing the theory of the four discourses is useful because the link between Lacan's discourse theory and political analysis is made more explicit. In the case of this project, these four discourses can be used as theoretical guidelines to understand the EU's climate action, insofar as they explain more clearly the relationship between subject and discourse and what does not work in discourse. There is general agreement that the four discourses are historically determined (Campbell, 2016, p. 241; Feldner and Vighi, 2015, p. 71), most notably by the historicity of Western modernity (Žižek, 2006, p. 109). May 1968 deeply influenced Lacan's thoughts on the knowledge of modern science and capitalism (see 3.3.2 and 3.3.4). At the same time Lacan claimed that a change from one social bond to another could be caused by a disruption that, as he puts it "hystericizes" discourse (Lacan, 2007, p. 35). Although he did not explicitly address what made these given social bonds emerge and when, and whether other types of bonds might emerge in the future, his reflections on modern science and capitalism are nonetheless useful for analysing the EU's climate action as a discourse of "evidence-based knowledge". In other words, for making sense out of the "objects" that are key to this climate transition, and for detecting any rupture and understanding how it is handled. This is precisely because "the four discourses are not about what functions in our intersubjective relationship [...] but about what in the strict sense does not function: what cannot be mastered, or what does not work" (Klepec, 2016, p. 121). This in turn ultimately helps us to understand whether we are facing a change of discourse or at least whether the foundation of a given discourse is being shaken.

These conceptual tools are represented through a framework of four fixed positions, where the upper part represent the conscious dimension while the lower part stands for the unconscious (repressed or disavowed) (Fig. 1). This framework can be regarded as a scheme

of communication (Klepec, 2016): on the top left there is the agent of discourse – the message sender; on the top right there is the other – the receiver of the message sent by the agent. Agent and receiving other are not necessarily a person but a locus, for example the EU Commission or any UN campus. On the bottom left there is the unconscious truth of the discourse, and on the bottom right we find the product-loss of discourse. The position of unconscious truth on the bottom left reveals that the agent is never fully in charge of the discourse.

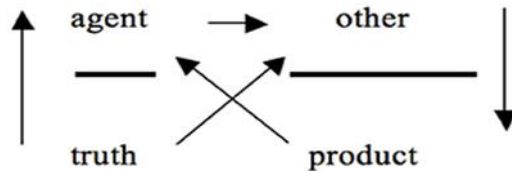


Figure 1: The fixed framework

The four discourses emerge through a quarter anticlockwise rotation in the above fixed schema. It is through this formal representation that we see the convergence of all the elements introduced so far. These are the Master Signifier qua anchoring point of representation, indicated by S_1 , which fixes and naturalises signifier and signified; the signifying chain as knowledge, represented by S_2 ;⁴⁴ the divided subject $\$$; and the remainder (object cause of desire, i.e. *objet a*) as the excess-loss of the process of enunciation (Lacan, 2007, p. 32).⁴⁵

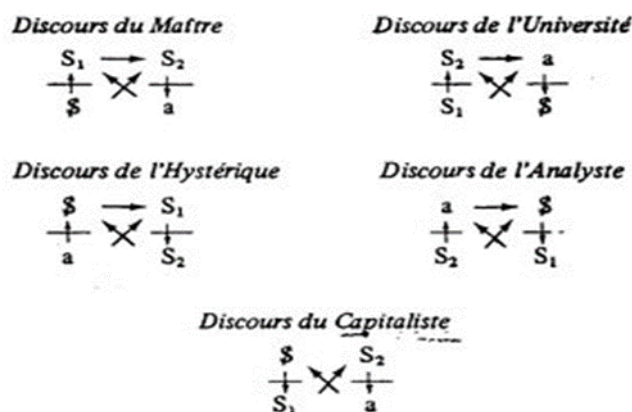


Figure 2: The four discourses with their fifth variant

⁴⁴ The Symbolic in terms of registers of discourse.

⁴⁵ The Real in terms of registers of discourse.

As shown in Fig. 2, these discourses describe different types of social bonds⁴⁶ and all leave a gap, contain an impasse, in other words they are open and partial despite appearing closed and totalising:

In supposing the formalization of discourse and in granting oneself some rules within this formalization that are destined to put it to the test, we encounter an element of impossibility. This is what is at the base, the root, of an effect of structure (Lacan, 2007, p. 45).

As each social bond describes a different type of knowledge underlying different power relationships and a different subject, Bracher explains (1993) that we can understand the differences between Lacan's discourses by looking at the social effects they produce. The Master's discourse is the discourse of power and command; the University discourse is the discourse of knowledge, education and indoctrination; the Hysteric discourse is the discourse of desiring, questioning and challenging; finally, the Analyst discourse is the discourse of psychoanalysis, which is driven by the potential for transformation (Bracher, 1993, p. 53). The Master and University discourses in different ways describe the reproduction of some form of domination. On the other hand, the Hysteric and the Analyst discourses are supposed to challenge the status quo, potentially generating real change by producing the desire for different significations. In the early 1970s, Lacan complemented this theory with a fifth discourse, the discourse of the Capitalist, which revolutionises the logic of the four discourses (Lacan, 1972, pp. 32-40). This discourse does not follow the standard anticlockwise quarter turn, as it is obtained from the Master discourse by inverting the barred subject \$ and the Master Signifier. This shift will be explained in further detail in the next section. For the moment, it is enough to say that it constitutes a variation of the old Master's discourse.

In the following two sections I will place a special emphasis on the opposition between the University discourse of a hegemonic knowledge and the Hysteric discourse of "real knowledge", and on the parallelism between the University discourse of dominant knowledge and the Capitalist discourse of commodified enjoyment (*jouissance*). Within this framework the opposition between the University discourse and Hysteric discourse allows us to reflect on how the evidence-based knowledge in the EU's climate mitigation action is

⁴⁶ As the vectorial representation shows in Fig. 1 and Fig. 2, only fixed relations between the elements are possible, so we can only have 4 combinations.

performed. Similarly, the parallelism between the University discourse and the Capitalist discourse allows us to reflect on how the impossibility of the discourse is turned into commodified knowledge and consumption objects of identification.

3.3.2 The University discourse: knowledge as command

The University discourse is a conceptual apparatus that describes a social bond in which knowledge (S2) is in command. Indeed, as we can see in Fig. 3, knowledge takes the position of the agent of discourse and constitutes its driving force.

$$\frac{S_2}{S_1} \rightarrow \frac{a}{g}$$

Figure 3: The University discourse

The University discourse indicates for Lacan the hegemony of modern science, thus a specific type of knowledge that asserts itself as neutral, measurable, quantifiable and bureaucratised, rational and objective. However, the agent of the discourse is always commanded by an unconscious truth, which is the real and hidden engine of the discourse. In the case of the University discourse, this unconscious truth in the bottom left is occupied by the hidden Master Signifier S1, the signifier that naturalises the social bond. By following the logic of this discourse, I realise that this apparently neutral knowledge delivers in fact partial truths, in that the knowledge qua agent S2 is not as neutral as it seems, but there is an unconscious power relationship represented by the Master Signifier S1. In this respect, in Lacan's University discourse a form of disavowal seems to be at play in relation to mastery. Indeed, this discourse appears insidious in concealing the authoritarianism that is instead explicit in the Master's discourse through a command visibly imparted from the position of the agent. It is as if the University discourse disavows its performative dimension, "presenting what effectively amounts to a political decision based on power as a simple insight into the factual state of things" (Žižek, 2003, p. 394). Hence, the University discourse conceals the relationship S2/S1, which is that of power and knowledge, and hides the performative and fictional character of knowledge under a flat and apparently objective knowledge. In truth this knowledge works for the Master Signifier. As Pavón Cuéllar et al. (2010) argue, this (University) discourse pertains to all socialist bureaucracies and liberal technocracies, for example the EU as a supranational organisation. By the same token, it is this presupposition that shapes our free thinking, our analysis, our allegedly unbiased scientific inquiries but also our liberal ideologies and political orthodoxies under the influence of free market principles (Pavón Cuéllar et al., 2010, pp. 264-265). Thus, it is this

presupposition that shapes for example our climate targets, our climate modelling practices, and our climate governance structure.

In this discourse, the allegedly neutral scientific knowledge (S2) attempts to control and tame *objet a*, the surplus of meaning perceived as loss that sets desire in motion, by integrating it into signification and turning “lack” into a consumption object. Therefore, this object is integrated into signification and loses significantly its disturbing/traumatic and therefore transformative potential (Wright, 2015, p. 142; Feldner and Vighi, 2015, p. 93).⁴⁷ As Solomon puts it, “*objet a* represents the desire of the other to absorb whatever knowledge the agent offers” (Solomon, 2015, p. 58). As indicated by Lacan in Seminar XVII, knowledge in this social bond goes along with *jouissance*, the ever-deferred full satisfaction (Lacan, 2007, p. 67): knowledge is the vehicle through which *jouissance* is produced, mastered, transmitted and commodified (Wright, 2016, p. 138-142). However, this relationship between subject, discourse and *jouissance* is even more evident in the Capitalist discourse (see 3.3.4). For example, in Chapter 6 I illustrate that the phase of acceptance of the circular economy project within the EU has entailed a loss of the traumatic and disruptive potential that the “circularity” metaphor brought with it, thus the possibility of bringing an authentic change of paradigm (see 6.6).

As a result, after seeing how knowledge qua agent of the discourse attempts to neutralise this lack, something is produced in the University discourse (bottom right of the graph): the split subject \$, or rather different, deeply fraught subjectivities, defined by this new set of signifiers, who are excluded from relating and acting upon the Master Signifier S1. Similarly, in Chapter 5 I illustrate that the EU mobilises its knowledge apparatus in the pursuit of climate mitigation objectives as a form of ultimate full representation. From this desiring position of having an effective climate policy these split, fraught subjectivities, as workers and consumers themselves set “knowledge” to work with the signifiers available to them. These subjectivities are the EU bureaucrats who are themselves, as employees, caught in a chain of consensus-seeking practices, the stakeholder negotiating and lobbying their targets with the policymakers, as well as the citizens as consumers placed at heart of the energy transition to a low carbon future (see 5.4.4 and 5.5). If the University discourse as a discourse of knowledge is nothing but a disavowed discourse of power, is there any “real knowledge”?

⁴⁷ However, it should be highlighted that *objet a* as excess of sense remains, it is not made symbolisable for the fact of being in the place of the other (top right).

3.3.3 Knowledge: University or Hysteric discourse?

I defined the University discourse as the discourse of knowledge, with “knowledge” being the modern science of increased mathematization and technologization. However, although Lacan first associated the University discourse with scientific formalisation, he later dissociated true scientific work from the University discourse. In fact, due to the increased mathematization and technologization of science, authentic scientific enquiry was associated instead with the Hysteric discourse (Lacan, 1990, p. 19). Lacan draws a distinction between a “science” that does not cover contradictions and paradoxes of knowledge and a “science” that works for the Master signifier, which is that of the University discourse. In this respect Fink (1999) explains the difference between the two “sciences” as follows:

It implies that the kind of knowledge involved in the University discourse amounts to mere rationalization [...] We can imagine it, not as the kind of thought that tries to come to grips with the real, to maintain the difficulties posed by apparent logical and/or physical contradictions, but rather as a kind of encyclopaedic endeavour to exhaust a field. Working in the service of the Master Signifier, more or less any kind of argument will do, as long as it takes on the guise of reason and rationality (Fink, 1999, p. 37).

In fact, the Hysteric discourse is a discourse in which the split subject $\$$ dominates in the agency position and calls into question the dominant knowledge and thus the dominant power relationships (the Master Signifier S_1). Although the Hysteric's discourse is the name of one of the discourses, this does not mean that a “hysteric” subject functions only within this Hysteric discourse. For example, as an academic or a stakeholder (see Chapter 5 and Chapter 6), the hysteric can function within the University discourse, but what changes is his or her efficacy, since the effects and shortcomings are decided within that specific discourse. In fact, each discourse facilitates some aspects while hindering others (Fink, 1999, p. 30). In this respect, Lacan himself explained that: “The desire to know is not what leads to knowledge. What leads to knowledge is – allow me to justify this in the more or less long-term – is the Hysteric's discourse” (Lacan, 2007, p. 23). For example, in 6.5.1 I will show how a scientist posed an epistemological question as to what constitutes evidence-based policy by refusing a reductionist, rationalised and instrumental use of science expressed by modelling and technologization. Lacan contrasts this latter type of science with a more authentic scientific enquiry that needs to think of complex systems in order to gain a comprehensive understanding of reality, with all the difficulties and contradictions that this

might entail. However, as we will see, any opportunity of calling into question the dominant discourse is confined to episodes of participatory events which have little relevance in terms of the actual EU's climate decision-making process. Hence these have a limited transformative effect.

Related to this desire to know – S2 in the position of truth, which is not the same knowledge as that of the University discourse – the psychoanalytical discourse conceives the analyst as the embodiment of the subject's lack (*objet a*) in the agent position. The analyst interrogates the subjects in their division and sets the patient to associate with the aim of producing a new Master Signifier (S1) (Fink, 1999, pp. 37-38), thus a real change in signification and a changed subject. This is the reason why, if the Hysteric discourse is the discourse of real/impossible knowledge, the Analyst discourse is the discourse of transformation and real change, which I would identify as the ultimate, perhaps utopic, aim of my project. Consequently, if the Analyst discourse is the discourse of change via the Hysteric discourse of real/impossible knowledge, the University discourse can be seen as a discourse of reductionist knowledge. Furthermore, if the University discourse and the Hysteric discourse are in a way antithetical, the University discourse and the Capitalist discourse are instead complementary in that the latter addresses more explicitly the relationship between discourse and *jouissance*.

3.3.4 The Capitalist discourse: enjoyment unbound

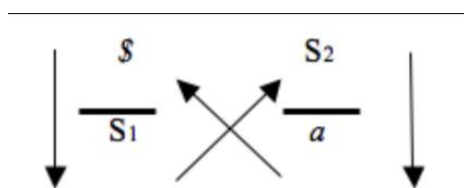


Figure 4: The Capitalist discourse

Lacan complements the University discourse with an underdeveloped fifth discourse, the Capitalist discourse (Lacan, 1972, pp. 32-40). As Lacan claims, “the important point is that on a certain day surplus *jouissance* became calculable, could be counted, totalized” (Lacan, 2007, p. 177). Lacan's critique is addressed to the fact that knowledge in modernity has been transformed into a countable and quantifiable entity, thus as the right-hand of capitalism. Lacan's formalisation of this discourse occurred in the aftermath of May 1968, when he began associating capitalism with the University discourse. The students' protests in French

universities ended with the adoption of the credit points system (*unités de valeurs*, units of value) and, on this occasion, Lacan warned against the fact that what looked like a revolution, or a subversion, was in truth a redistribution of tasks within the same system. What was operating in the transition from the old to the new master was in fact a transformation of the place of knowledge that led to its quantification, commodification and rationalisation (Lacan, 2007, pp. 29-32; Koren, 2014, p. 254; Campbell, 2016, pp. 141-142; Tomsič, 2016, p. 158). Hence, from a reflection on university as the locus of knowledge production, Lacan expanded his social critique and turned to a more macro, systemic reflection on knowledge, its production and the rationality underpinning this production. “Knowledge must enter into the circuit of commodities, and their agents – the students, the researchers and the teachers – have to be considered as (re)producers of the system” (Boni, 2014, p. 136).

Having said that, in the Capitalist discourse, mastery, purported by an allegedly neutral knowledge of quantification and valorisation, has become invisible but pervasive and more authoritarian than any other previous historical form of command. Thus, rather than a fifth discourse, the Capitalist discourse is the replacement or transformation of the old previous relations of authority, power and domination (Feldner and Vighi, 2015, p. 75; Koren, 2014, p. 254; Tomsič, 2016, p. 258). In the Capitalist discourse, the alienated and powerless worker-consumer subject \$ is the type of subjectivity constituted by capitalist relations and occupies the position of the agent. These subjectivities address their lack by setting productive knowledge S2 in motion, articulated out there in the socio-symbolic Other. Thus, this subject is supported by the knowledge expressed by the signifiers available to them (S2) in the hope that their (endless) desire can be satisfied. On the other hand, the subject is characterized by a perpetual desire and demands objects of enjoyment that fuel this lack without ever satisfying them. Lacan himself states explicitly that the greatest achievement of the Capitalist discourse is in fact the exploitation or industrialisation of desire (Lacan, 1973b, p. 94), which is why he refers to it as a very clever discourse (Lacan, 1972, pp. 47-48). However, as the directionality of this discourse shows, these split subjects \$ address their lack through the (concealed) Master Signifier S1, which is the pervasive power of the market (S1). This means that they are in truth subjected to an unconscious command, the same command of the University discourse.

The skill of the Capitalist discourse is that it exploits the structure of the desiring lacking subject as a means of endlessly reproducing itself. As Šumič (2016) argues:

By manipulating his or her desire, i.e. by reducing it to demand, the Capitalist discourse creates the illusion that, thanks to scientific development and the market, it is able to provide the subject with the complement of being that he or she is lacking by transforming the subject's lack of being into the lack of having (Šumič, 2016, p. 33).

For the purposes of this project, the Capitalist discourse helps us to better understand the relation between the subject, the socio-symbolic structure and *jouissance*, than the University discourse. Hence, if in the University discourse *jouissance* is accessed through knowledge production, in the Capitalist discourse lack is valorised and turned into a positive feature (Feldner and Vighi, 2015, p. 82-83; Tomsič, 2016, p. 158-160).⁴⁸ Thus, the system provides the subject with commodified objects of enjoyment and this gives a temporary sense of plenitude that strengthens this position of enjoyment as a must, not as painful lack (Šumič, 2016, p. 33; Feldner and Vighi, 2015, pp. 71-72). We see this in operation in Chapter 5, where I illustrate how a climate mitigation action that is confined to the signification space of “energy transition” appears to be an illusionary change supported by the integration into signification of its traumatic points, such as the recent enthusiasm around the rebound effect,⁴⁹ which was previously denied (5.5.2).

More specifically, the ambiguity of this surplus-*jouissance* is well conveyed by the French *plus-de jouir*, where “plus” means both excess and lack, and in the case of the Capitalist discourse it is equated with Marx's concept of surplus value (Lacan, 1972, p. 48). It is indeed this overlap between surplus value and surplus enjoyment (*plus de jouir*) that enables the capitalist production of objects to capture and enslave the endless desire of the lacking subject (Šumič, 2016, p. 33). By way of example, in 5.5.1 I explain how the auspicious improvements in energy efficiency measures as knowledge at work can create energy savings, thus a “surplus-energy”. However, if these savings are re-invested and re-absorbed in the market and infrastructures, this surplus energy becomes nothing but an economic surplus value in the strict sense in that it does not translate into a decrease of the absolute volumes of energy. Thus, the consequent negligible effect on GHG emissions reductions emerges more strikingly and the impossibility of “energy savings” qua “surplus value” equates with Lacan's surplus-*jouissance*, that is an impossible full satisfaction. Ultimately,

⁴⁸ If we look at the directionality indicated by the vectorial representation of this discourse (see fig.4), the Capitalist discourse pictures a seemingly closed circuit of enjoyment for which there is no gap or excess, as if it intended to model consumers' satisfaction (Wright, 2015, pp. 143-144).

⁴⁹ The fact that energy efficiency virtually equates with productivity, which does not automatically translate into a decrease in energy volume, as those savings are re-invested.

the Capitalist discourse can be defined as a discourse of *jouissance*. In other words, the impossibility of discourse is concealed, but this does not mean that it disappears. Therefore, when looking at the EU's climate mitigation discourse a key point is to look at how *jouissance* is manifested and "trapped" and observe if there is any way in which it returns to be traumatically disruptive. In this regard, in the case of the circular economy I show how a previously resisted disruptive metaphor of *circularity* is translated into an apparently new reassuring loop, which carries the painful pleasure of seemingly becoming more circular – through increased recycling, more ecodesign qua energy efficiency, new business models. However, the analysis shows that the subject seems in fact trapped in a circle of endless (dis)satisfaction, where the final aim of bringing the real transformation and pursue the desired climate objectives is always deferred (see 6.6). At the same time, I show how an important element of counter-resistance to this co-optation into the dominant discourse is detectable and seem to leave room for a degree of potential transformation (6.7).

This section outlined the main elements of the theory of the four (or five) discourses, which inform my analysis of the EU's climate mitigation action. These conceptual tools are regarded as theoretical guidelines that make it possible to reflect on the nature of the EU's climate transition, and ultimately, to assess whether we are facing a change of discourse, a paradigm change, or if any produced fractures are capable of at least shaking the foundation of a given discourse. More precisely, they place at the centre of the analysis the lacking but socially produced subjects, who are split between the pursuit of climate objectives and a historicised signifying structure defining them and regulating their actions. In this respect, the opposition between the University discourse of "commanded knowledge" and the Hysteric discourse of "real/impossible knowledge", can be regarded as an interesting point of reflection as to what constitutes evidence-based knowledge in the EU's climate mitigation action. Similarly, the parallel between the University discourse of "commanded knowledge" and the Capitalist discourse of commodified enjoyment constitutes an interesting point of reflection as to how the impossibility of the discourse is turned into commodified knowledge and consumption objects of identification. Before proceeding with the analysis of the empirical material, this theoretical framework must first be translated into a research practice. Therefore, the next Chapter will focus on how I operationalise my theory into a data gathering practice and data analysis method.

3.4 Conclusion

The theoretical discussion conducted in this chapter has provided a conceptual framework based on Lacan's theory of discourse that will inform the analysis in my empirical chapters. The chapter started by explaining Lacan's logical prioritisation of the signifier. By re-elaborating on De Saussure's theory of signification, I explained how signification proceeds through the interplay of signifiers that are retroactively fixed by an anchoring point, called the Master Signifier, which provides a relative but necessary meaning stability. It is this signifying chain that gives the subjects an overarching socio-linguistic structure which allows us to establish and maintain all societal relations. Within this framework, "social link" is another way for Lacan to name "discourse". Discourse becomes then the signifying structure that constitutes an overarching socio-linguistic structure allowing us to establish and organise our intersubjective societal and thus climate relations. If on the one hand the real subject presupposes symbolization to create sense and more widely to establish and maintain these societal relations, on the other hand the discourse presupposes a real speaking subject to be established and maintained. Thus, the EU's climate policymaking manifesting itself as multi-institution, multi stakeholder and multi-level processes constitute instances of discourse in that they are presupposed by the different speaking subjects as what needs to be done to establish and maintain given climate policies.

At the same time this multi-institution, multi stakeholder and multi-level structure can only be maintained through the speaking subjects whether EU institutions representatives, stakeholders, citizens that are representatives of and defined by that structure. Through this ontological shift we cannot separate the subject from the discourse, as they exist in a relationship of mutual presupposition. However, I argued that the activity of speaking always produces an excess of meaning which is perceived like a loss in the enunciation, as the socio-symbolic order can never fully complete the subject. It is because of this ontological lack that the signified (meaning) slips metonymically across signifiers and full signification is always deferred. In this respect Lacan explains this excess of meaning with an original conceptual tool, the *objet petit a*, that stands for the lack that stimulates desire, with its transformative potential. More precisely, this conceptual object embodies the impossible, full satisfaction that is lost while enunciating and that results in a paradoxical (dis)satisfaction, called *jouissance*. In practical terms this impossibility is rendered visible in the blind spots, contradictions, weaknesses that make discourse always partial and inconsistent. Moreover, I argued that it is precisely how the impossibility of the discourse is handled that leads us to reflect on the nature of the EU's climate transition and on what

constitutes change. Indeed, this remainder can either be positively integrated into signification as produced and transmitted knowledge or as consumption object. Alternatively, it can disrupt signification and produce new alternative significations and thus real change. This does not mean however that the subject is always consciously adhering to that discourse, but that they desire to believe it by resorting to socio-symbolic constructions, called fantasies, that promises to cover the impossibility of full representation, by achieving the fullness of *jouissance*.

This dialectical relationship between discourse and subject is further exemplified by the three interrelated registers of discourse, the socio Symbolic network, the individual mental representation of the Imaginary and the realm of *objet a* and *jouissance* the Real, which show how these are all held together by the Lacanian subject and emerge in the moment of the enunciation. Within this framework, I maintained that the relevance of Lacan's theory for socio-political analysis emerges when we consider the socio-political production of subjectivity and the refusal of the essentialist and simplistic notion of subjectivity. I have shown that with this ontological shift the Lacanian subject is not reducible to the ego of an individual, nor is it identical to the un-divided, fixed identity of an individual. Rather with a subject that ultimately coincides with his/her lack rather than with an essence of the individual psyche, Lacanian theory avoids reducing the social to the individual, since this lack can only be filled by available socio-political objects of identification, – the available social discursive representations conferring them a stable identity.

This move is further elaborated by referring to Lacan's theory of the four discourses. In this regard, I argued that this conceptual apparatus allows us to reflect on what underpins knowledge in the EU's climate mitigation action and how I understand the "objects" of identification that are relevant to this transition, such as energy efficiency, renewables or circular economy. The four discourses can be differentiated according to the social effect they produce. Indeed, the Master (with its Capitalist variant) and the University discourses embody the dominant discourses of power and knowledge, while the Hysteric and the Analyst discourse embody the discourse of defiance, transformation and ultimately change. I started by outlining the University discourse of modern science as a social bond that is driven by an allegedly neutral knowledge, but that is in truth guided by an unconscious authority. At the same time, I have contrasted this discourse with the Hysteric discourse, the social bond that represents a true scientific enquiry which does aim to reductionism. As I argue, the opposition between the University discourse and the Hysteric discourse

constitutes a point of reflection as to what constitutes evidence-based knowledge in the EU's climate mitigation action. I have then explained the parallel between the University and Capitalist discourses. These discourses are complementary in the way they deal with the impossibility of discourse, namely by positively integrating it into signification and turning it into commodified knowledge and objects that are key to the current EU's climate action, in a vicious circle of (dis)satisfaction that we called *jouissance*. As I discuss, these conceptual tools are intended as theoretical guidelines that allow us to reflect on the nature of the EU's climate transition and reflect on change. Indeed, they place at the heart of the analysis a lacking but socially produced subject – one that is split between the pursuit of climate objectives and a signifying structure defining them and regulating their actions. This abstract framework will be put to use for the practical side of my research in the next Chapter.

Chapter 4. Methods

4.1 Introduction

This chapter describes how the theoretical apparatus introduced in Chapter 3 has been translated into a research practice. The chapter describes data collection and data analysis methods, and it is structured as follows. First, I present the policy context in which I developed my research practice and briefly outline what the EU's climate action consists of in terms of both the 2030 Clean Energy Package and the 2050 long-term decarbonisation strategy. At the same time, I illustrate how this EU institutional level is embedded in a wider international governance system. Second, the chapter explores “what” I need to look for in the field, that is what I defined the moment of the enunciation, as the enunciating act is the moment when the mutually presupposed relationship between discourse and subject is manifested. I identify the importance of conducting empirical research as it allows me to go beyond the enunciated fact of a drafted policy document and observe the moment of the enunciation in which all the elements of discourse, that is the socio-symbolic network and the surplus of sense, emerge. It is in the gap between what the subject wants to say in the pursuit of climate objectives and what they actually say that we can reflect on the nature of climate action, detect any fractures, and ultimately reflect on what constitutes real change.

The chapter looks then at “where” I can observe these moments of enunciations. The EU's climate policymaking takes place at two important stages. The first one is the EU institutional level, which led me to undertake a period of 6 months fieldwork in Brussels where I observed relevant climate events at the EU headquarters. As the EU's climate policymaking does not take place in isolation from the wider international governance of climate change at the UNFCCC level, I also conducted participant observations at the 23rd and 24th Conference of the Parties (COP23 and COP24) in November 2017 and December 2018, where the EU is a negotiator and where the EU participates with a long series of ad hoc side events on its policymaking. Fourth, the chapter outlines how I conducted interviews. Given the diversity of actors and some difficulties encountered in the process of interviewing, my approach to interviews has been versatile and adjusted as the interview unfolded. In general, open-ended, in-depth interviews with a horizontal, cross sectoral approach to the different EU Commission's departments and institutions have been preferred to observe how the subjects are spoken by language. The chapter continues by explaining how I made use of netnography, a type of ethnography that exploits the tools provided by Internet research. In this project, I have made use of the EU Commission's website to organise my fieldwork activities, decide who to contact for interviews and trace the ongoing

events while in Brussels. Where interview participants and event speakers have made reference to policy documents, I have examined the referenced policy documents for context.

The final part of the chapter outlines how I operationalised my theoretical framework into a Lacanian discourse analysis. More specifically I explain how mapping the socio-symbolic (linguistic) network aims to trace how knowledge is presumed through the signifying chain and to isolate potential Master Signifiers. I show how this anchored and seemingly locked representation can be disrupted with the aim of generating possible alternative interpretations, all spoken at different times of the enunciation. It is through the disruption and disorganisation of a seemingly consistent discourse that fractures are rendered visible, as these appear as gaps, blind spots, weaknesses and contradictions, which embody the present but unsymbolisable surplus of meaning. Once the fractures are exposed, I can observe if they are positively integrated into signification or if they disrupt signification, which corresponds to the production of alternative significations. Hence, I can ultimately reflect on the nature of the EU transition and if we are potentially witnessing a change of discourse. Finally, I discuss the implications of such methodological positioning and argue that observing, interviewing and conducting a Lacanian Discourse Analysis implies a certain ethical position, in that we inevitably engage in a process of identification and we impose our meanings on the text. This means that I can act as someone who artificially introduces a disruptive element in signification while conducting the interview. Alternatively, I can second the logic of the hegemonic discourse to observe the effects on the subjects. Therefore, I clarify that I do not speak from a metalanguage position through which to explain language objectively.

4.2 The policy landscape: the 2030 Clean Energy Package and the 2050 long-term strategy

In this section I explain the specificities of the policy landscape that constitutes the object of my analysis in Chapter 5 and 6. In Chapter 1 I referred to the period under observation as the period “in between strategies” to emphasise the intended transitional character of the EU’s policy response to climate change. To understand the policy context, it is worth emphasising that the EU’s climate mitigation strategy, as an object of study, must be contextualised at the crossroad between an institutional and an international process that mutually shape each-other along a continuum in which the international treaties such as Paris Agreement as well as the EU regulatory frameworks represent intermediate reference points. At policy level, when we speak of either the 2030 package or the 2050 strategy, we are

dealing with two different policy tools, namely a legislative package and an EU Commission's Communication. The difference between these is that while the package is being finalised and it has got a legal character, a Communication is a summary of what the EU Commission indicates as the recommended course of action in a given policy area before actual policies, such as the Clean Energy Package, are formulated and implemented (Curtin and Manucharyan, 2015). This process is called Ordinary legislative procedure (EU, 2020).

In October 2014, the EU agreed to set up a framework for 2030 for climate and energy which would result in the "Clean Energy package for all European citizens" as the next policy tool following the 20-20-20 targets agreed in 2007 and entered into force in 2009. The 20-20-20 planned a reduction of GHG emissions by 20%, an increase of the share of renewables by 20%, and an increase of energy efficiency by 20% by 2020 compared to 1990 levels. The 2030 Clean Energy Package establishes for the period 2021-2030 increased targets. Precisely, this package aims to increase the share of renewables by 32%, improve energy efficiency by 32.5% and increase the reduction target of GHGs emissions to a 40% reduction.⁵⁰ The Clean Energy Package consists of a set of legislative tools, completed on May 22nd, 2019. Due to the increased targets envisaged compared to the 2020 targets, the 2030 Clean Energy Package presents a revised version of some of the Directives that were already in force under the 20-20-20 package, such as the Energy Efficiency Directive (Directive 2012/27/EU) and the Renewable Energy Directive (Directive 2009/28/EC). This package should strengthen one of the current aims of the EU Commission, that is the Energy Union, as well as it should strengthen the Paris commitments towards 2050 (EU Commission 2019).⁵¹ However, compared to its predecessor, i.e. the 20-20-20, this new package relies on a soft governance system that mirrors that of the Paris Agreement. This means that all EU Member States must set up their own climate and energy plans for the period 2021-2030, and this mechanism is governed by the Governance Regulation that is part of the package (Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action).⁵²

⁵⁰ Moreover, a review by 2020 might achieve even a 45% reduction (EU Commission, 2019).

⁵¹ Energy Performance in Buildings Directive, Renewable Energy Directive, Energy Efficiency Directive, Governance Regulation, Electricity Directive, Electricity Regulation, Risk-Preparedness Regulation, Regulation for the Agency for the Cooperation of Energy Regulators (ACER). The first 4 are usually appraised in the public events as well as interviews as the actual strategy that will lead to a low carbon economy because they had already been agreed at the time fieldwork was conducted.

⁵² In EU law, a Regulation is a binding legislative act, which must be directly applied across the EU. A Directive sets out a goal that all EU countries must achieve and have to be translated into national laws by Member States which will decide how to reach these goals (EU, 2020).

A new framework with targets and scenarios envisaged for 2050 was added to this Clean Energy Package on 28th November 2018. This is the Commission Communication called “A Clean Planet for all - A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy”, which is commonly referred to as “the long-term strategy” (COM (2018) 773 final). With reference to the Clean Energy package, it states:

The policies put in place today will have a continued impact after 2030 and will therefore already go a long way, with projected emissions reductions of around 60% by 2050. This is, however, not enough for the EU to contribute to the Paris Agreement's temperature goals (COM (2018) 773 p. 5).

The Commission's Communication presents 8 scenarios, some of which are Paris Agreement compatible (with either the well below the 2 degrees and 1.5 degrees scenarios), based on sophisticated modelling and different scenario combinations⁵³ (COM (2018) 773 final in-depth supporting analysis p.56). It can be deduced that this new 2050 strategy is not a revision of the 2030 targets, nor does it launch new policies, but it indicates the direction of travel and sets the framework for climate and energy policy in line with the Paris Agreement and the Sustainable Development Goals, which demand 80-95% decarbonisation (see COM (2018) 773 final pp. 3-5). This Communication can be regarded as a will that has been handed over to the new Commission, as at the time of fieldwork, the Commission led by President Jean Claude Juncker as well as the elected Parliament led by President Antonio Tajani were coming to the end of their term.

At the same time, the EU's climate action is obviously embedded in a wider international climate governance sphere which started with the 1992 United Nations Framework Convention on Climate Change (UNFCCC), of which the latest phase is the Paris Agreement (2015). The Paris Agreement is a compromise document resulting from the collective bargaining of 197 countries which establishes a bottom up approach.⁵⁴ As such, it leaves to the parties to determine how decarbonisation, thus mitigation, will be conducted by member states and requests the (voluntary) submission by parties of their Intended Nationally

⁵³ The Commission communication comprises a 25-page summary for policy making and a 400-page staff working documents (COM (2018) 773 final).

⁵⁴ The agreement was concluded on 12th December 2015 after a two- week intense negotiation activity, but it is the result of a process characterised by many fits and starts, including the failure in producing an agreement at Copenhagen 2009, the Cancun conference 2010, the Durban Platform for Enhanced Action 2011 COP17 calling for a legal instrument applying to all parties and finally COP19 in Warsaw which urged parties to send their INDCs (Ciplet et al., 2015).

Determined Contributions (INDCs), which are to be revised every five years. Hence, when the Paris Agreement was being negotiated in December 2015, the EU was already working at its post-2020 climate and energy policies. At the same time, the wider international negotiations cannot be neglected as the phase of EU's climate action under observation corresponds to the pre-implementation phase of the Paris Agreement, with the first revision of the INDCs due by 2020. This means that the EU institutional process and the international process mutually shape each other.

4.3 From theory to practice. “What” to look for: fieldwork as the moment of the enunciation

This section begins to bridge the gap between the theoretical apparatus outlined and explained in the previous chapter, and how these are translated into a Lacanian study of the EU's climate mitigation action. The first task is to establish what to analyse when dealing with a Lacanian “subject” and “discourse”. The theoretical chapter has described discourse as the fundamental structure founded on language that keeps our societal (climate) relations together. This structure needs a real subject to be established and maintained, and the subject in turn presupposes this structure by maintaining these climate relationships (see Lacan's notion of discourse in 3.2.2). However, the act of resorting to language is an act of loss (*perte*) for the subject, in that language fails to embed their full representation, and thus a split in the subject is produced. The Lacanian subject emerging in the enunciation is what is produced by language as surplus of sense (what escapes signification).⁵⁵

Hence, I must distinguish the enunciating act from the enunciated fact: the former is what comes from the subject of the unconscious emerging from their unique telling position with that “excess” (Lacan, 2006); the latter is the telling itself arising from the signifying structure to which the subject resort (3.2.3). Experience in the field is critical in this regard, as it allows me to go beyond the enunciated fact of a drafted policy document and observe the moment of the enunciation where all the elements of discourse – the socio-symbolic and the surplus of sense – emerge. It can be argued that the enunciating act is the moment when the mutually presupposed relationship between discourse and subject is manifested. In this respect, distinguishing between the enunciating act and the enunciated fact is useful because it is in the gap between what the subject wants to say in the pursuit of climate objectives and what they actually say (the signifying chain mobilised) that we can reflect on the nature of climate

⁵⁵ In this leftover, between what the subject wants to say and what the subject says, lies that “lack” that sets desire in motion, that Lacan called *objet a*.

action, detect any fractures, see how these are handled by the speaking subject, and ultimately reflect on what constitutes change. This gap is rendered visible in the weaknesses and blind spots that make discourse partial and inconsistent, as these are the breaking points of discourse in which the process of identification with language, perpetrated by the subject, fails. Consistent with a Lacanian approach, it is not important who I interview in terms of the hierarchy of the Commission or the Parliament that. In fact, by being “EU representatives” these subjects necessarily resort to the same signifying chain which defines them and which allows them to establish and maintain those societal and climate relationships, the discourse of the Other - the socio-symbolic fiction we resort to every time we enter language (Pavón-Cuéllar et al., 2010, p. 215). Having said that, in order to detect these EU’s climate mitigation enunciators, I need to find a site or multiple sites of observations.

4.4 From theory to practice. “Where”: participant observation, interviews, netnography

4.4.1 The fieldwork process: participant observation

If the previous section has identified the enunciating act as “what” to looked for in the field, this section defines the Brussels headquarters and the UNFCCC sites as “where” to observe these acts of enunciation. This brings me more specifically to the definition of the “field” and the data gathering toolbox that I used. The label “participant observation” is adopted from now on to indicate in-site direct observations (Berg and Lune, 2014). Participant observation allows the researcher to be placed in the field and to directly observe phases of the policymaking process, such as stakeholder consultations within the EU Commission, and Parliament working sessions.

My fieldwork activity officially began in November 2017 at COP 23, but was conducted most intensely between June 2018 and December 2018, the moment when the preparatory work for the long-term strategy intensified.⁵⁶ In relation to the EU, climate policymaking takes place at two important stages and my field research mirrors this two-stage partition. The first stage is represented by the EU institutional level, which sets the regulatory framework for all Member states and corresponds to the work that takes place in the heart of the EU’s policymaking, the European headquarter in Brussels. At the same time, as the EU’s

⁵⁶ Table 1, Table 2 and Table 3 in Appendix provide a summary of the activities conducted. Table 1 and 3 are related to COPs and do not list the negotiating slots, contact groups, plenaries, informal consultations in which the EU delegates participate in the international climate governance. In fact, these focus on the implementation of the Paris agreement on a global scale and do not focus on the specific EU’s climate policies.

climate policy does not take place in isolation from the wider international climate governance under the UNFCCC, the fieldwork activities included observations at two COPs - COP23 in Bonn in 2017 and COP24 in Katowice in 2018. In these international contexts the EU, represented by the Commission, is a main negotiator and participates with a long series of ad hoc side events⁵⁷ on its policymaking at the “EU pavilion”. Hypothetically, I could also look at the EU’s climate action being performed on a third stage, as the decisions taken at the EU institutional level are implemented individually by Member States. However, this project focuses on the EU institutional level, as climate commitments and the strategies that the EU negotiates-are taken by the EU as a whole and not by single countries. Therefore, the privileged sites of observations are those in which the EU participates and negotiates as a whole.

The data gathering and fieldwork I undertook was experimental in nature, and in-site observations and interviews were refined and adjusted as I gained experience and as opportunities arose. The Bonn 2017 COP23 was the starting point of observations for data collection (see Table 1 in Appendix for a list of EU related side events attended during the COP23). I regard COP23 as the first introduction and immersion in the field, which I used to better understand and identify the relationship between the EU and international climate governance. Building on this I extended my field of observation to the EU institutional level in the search for how the actual EU’s climate policies are thought and constituted. As a result, I decided to focus on the action occurring at the EU level and put in place a series of in-site observations conducted at the EU headquarters in Brussels, where stakeholder consultations, stocktaking events, informal consultations took place (see Table 2 in Appendix for a list of the events attended while in Brussels). With this in mind, I attended all the relevant stakeholder events organised by the EU Commission between June 2018 and December 2018. I also followed the work of the EU Parliament both as an institution and as an informal platform for discussion. Finally, I observed the work and role of consultation bodies such as the European Economic and Social Committee (EESC). Finally, I went back to the international governance level and attended COP24 (see Table 3 in Appendix for a list of the side events attended during COP24), but with a slightly different mission compared to COP23. While I attended COP23 during the first week with the aim of discerning where to conduct more extensive fieldwork activity to look at the EU’s climate policymaking, COP24

⁵⁷ COP’s side events are events that do not have a direct influence on the negotiations. These events are used as platforms for discussions with the stakeholders. At the COPs, the EU has its own pavilion.

was attended during the second week⁵⁸ with a very specific aim – to follow the public presentation of the EU long-term strategy, which was released on 28th November 2018. In fact, the EU went to COP24 to present its long-term strategy and organised official dedicated side events. As a result, at that stage of the data collection process, I placed greater emphasis on EU side events, while keeping the international negotiations in the background.

The events attended during my field research are diverse in terms of scope and content. Some have a broad focus on climate and energy policy, such as “the EU vision for a clean, modern and competitive economy” (see Table 2 in Appendix 10-11/07/2018). Others are not specifically climate focused, such as the “EU trade policy day”, which included a session dedicated to a general idea of “sustainability” (Table 2 in Appendix, 27/11/2018). A few events are more sectorial and focus for example on one specific technology, such as the “Carbon Capture and Utilisation Technologies” (Table 2 in Appendix, 17/09/2018). Some of these events fit a policy making process, such as the aforementioned stakeholder consultation “the EU vision for a clean, modern and competitive economy”, whereas other events are stocktaking events, such as the “EU raw materials week” (see Table 2 in Appendix, 12-16/11/2018). Finally, some events are organised and run by EU institutions, such as all of the aforementioned events (Table 1 and Table 3 in Appendix), while other sessions are not directly led by the EU institutions but host instead a keynote speaker from a Commission member or include EU institution officials on their panels, such as the case of the Black Carbon event (Table 2 in Appendix 19/11/2018) or the Postgrowth conference (Table 2 in Appendix 18-19/09/2018). This diversity of events means that not every event has the same relevance in terms of final decision-making or on the outcome of the final policy. For example, these “unofficial” events do not have to be regarded as the official policy line but only as a platform for discussion. To summarise, when navigating the “EU events” I need to distinguish events with a broad scope from those with a specific focus. Moreover, I need to distinguish the stakeholder consultation that fit into a process from the stocktaking event. Finally, I must distinguish the EU run events from those events organised and led by stakeholder, research institutes, that are either funded by the EU or ask the EU to act as a platform for discussion.

⁵⁸ The COPs’ second week is always more political. For example, the High-level Segment, which takes place during the final four days of the conference “includes statements from Heads of State or Government, as well as high-ranking United Nations officials, and often feature ministerial-level round table discussions” (UNFCCC Secretariat, 2014, p. 8).

However, at a theoretical level in relation to the Lacanian discourse and Lacanian subject (3.2.2), the discursive practices that constitute the EU's climate policymaking are all instances of discourse qua social link, in that they are presupposed by the different speaking subjects to establish and maintain all the climate relations, in the pursuit of desirable and required climate mitigation objectives. If in this section I have illustrated the importance of conducting empirical work through in site observations, in the next section I will describe how I complement this participant observation with interviews. Indeed, in-site observations are a useful method to build a net of contacts for subsequent interviews. Moreover, interviews most often followed up stakeholder events in order to back up the data and retrieve missing pieces of information or contextualisation. At the same time stakeholder events are a useful method to observe some actors (such as stakeholders Business Europe) that did not consent to be interviewed.

4.4.2 The fieldwork process: interviews

Open-ended, in-depth interviews were a useful tool to observe how the subjects resort to this shared socio-symbolic structure. In interviewing participants in the EU Commission, a horizontal, cross sectoral approach to the different Commission's departments - named Directorate General (DGs) - involved with climate policymaking was adopted. These include DG Clima, DG Energy, DG Environment, DG Grow, DG Research and Innovation and DG Joint Research Centre. However, some difficulty and constraints have been faced due to the Commission's rules regarding interviews with people who are not employed by the EU, commonly referred to as "externals". When it was not possible to obtain an interview from a given DG or stakeholder, I instead identified and contacted actors who interact and gravitate around the Commission, such as the EESC (see the Appendix for the complete list of interviews conducted and transcripts). I recorded and transcribed all interviews, which allowed me to go back to the interview at a later stage and analyse the unfolding signifying chain with its associations, slips, weaknesses and contradictions as produced by the speaker.⁵⁹ Considering the diversity of actors and their different degree of engagement with the interview, the approach to the interview has been varied and versatile and most often adjusted as the interview went along. Depending on the speaker, I made use of both semi-structured interviews that is a list of questions with open-ended answers, as well as unstructured interviews (Brinkmann, 2013; Atkinson, 2002; Denzin, 2001; Wengraf, 2001),

⁵⁹ A full transcript of all interviews conducted is provided in the Appendix, except for one interviewee from DG Clima, who did not consent the interview to be recorded. For preserving the anonymity of the interviewees, they will be indicated with the interview number, their institution or organisation, and the date in which the interview was conducted.

where inputs, rather than questions, are built around the associations that come up naturally from the interviewee.

As a general guideline, I usually divided the interview first into a procedural section in which I would investigate the role of that representative followed by a second part that would address policy specific content. On a general basis, the procedural part would set the tone for the unfolding metonymic signifying chain, in that the policy content answers were more likely to be affected by the role that specific individual covered, as we will see more in detail in the empirical chapters. For example, a representative in DG Energy who deals with energy-related products and who talks about their role is unlikely to deploy a chain involving biodiversity, or pollution. Hence, the procedural part would set the premise for looking at how the signifiers are deployed and, accordingly, I would tailor the subsequent policy-related questions based on the produced language associations. Whenever I noticed a contradiction, I would ask a question or give an input that would either follow the logic of the produced signifying structure or I would alternatively introduce a potentially challenging element to observe the effects on the speaking subject. For example, in Chapter 5, I show how, following my question, a subject from the EU Commission's DG is caught in a net of signifiers that represent the work of the Commission, but a split is produced between his/her personal considerations about climate change and the EU representative from which he/she speaks. Moreover the subjects seem to be aware that their story is full of points in which representation breaks down, but there is an attempt to disavow personal considerations and embrace them as positive features so that these traumatic points are not perceived as conflictual (see 5.4.4). The next section will address how in-site observations and interviews have been complemented by a third tool.

4.4.3 The fieldwork process: “netnography”

The data collection toolbox has also been complemented by what is defined as netnography (Kozinets, 2015). The term netnography, is today widely recognised in Marketing research and exploits the tools provided by the Internet in social science research. Netnography can be composed of archival data, which establishes a historic and cultural baseline (Kozinets, 2015, pp. 165-170). In this respect, the asset when dealing with discourse is that the access to textual representations can be first mediated by an Internet search of official material, including speeches, government records, announcements, video and minutes of sessions.

I made extensive use of the EU Commission's webpage across its departments, the DGs, as well as the EU Parliament's webpage to organise my fieldwork activities, my interviews and trace the ongoing events while in Brussels. Moreover, when speakers made reference to policy documents such as is the case of the circular economy in Chapter 6, the referenced official policy documents (i.e. circular economy Communications) had to be scrutinised for context. Finally, whenever I encountered problems of access to a given site, such as the EU Commission's Transport DG Move, or some stakeholders, such as Business Europe, other creative combinations, including interviews with peripheral actors, document analysis and in-site observations were used to compensate for the missed piece of information. This fieldwork activity helped me to reconstruct the complex policy landscape in which the EU operates and how the EU operates in the current phase of climate policymaking, between the finalisation of the 2030 Clean Energy Package and the launch of the 2050 long-term strategy.

The limitations of this project are, however, revealed the moment when we consider that the phase of policymaking that I captured during my fieldwork is only a snapshot of a wider process that will develop across time and (policy) space. Although I collected data at a crucial time for EU's climate policymaking, the whole process is still in the making and onward looking from 2030 up to 2050. This partial character becomes even more evident when we establish a link with the international level of climate governance, the UNFCCC level, to which the EU's climate policymaking is intrinsically intertwined (see 4.2). Therefore, this project acknowledges its timeframe and policy frame limitations, but these are justified in terms of real time access to phases of the policymaking as they occurred. Therefore, observations and conclusions in this project refer to the phase of policymaking under observation and are not predictive of the future direction and evolution of climate policy under the new European Commission led by Ursula Von Der Leyen and the new European Parliament led by David Sassoli. Having outlined the data collection practice and the related policy landscape, in the next paragraph I turn to my approach to data analysis.

4.5 Lacanian discourse analysis (LDA)

The third step in this chapter is to outline concerns how the interview and observation data collected were analysed. When operationalising a given discourse theory into a discourse analysis, there is not one way of doing discourse analysis, as it is evident from the examples provided in GEP or poststructuralist IR more generally (see 2.3). Moreover, Lacan is not a discourse analyst and there is no pre-defined toolbox to conduct a Lacanian Discourse

Analysis. For this reason, in this section I outline the approach I developed for undertaking a Lacanian discourse analysis.

A Lacanian discourse analysis consists of considering the subject as speaking not his or her discourse, but the discourse of the socio-symbolic fiction called the Other (see 3.2.2). In the analysis, anonymised quotes from interviews as well as non-anonymised quotes from participant observations have therefore been faithfully reported in their entirety to preserve this fidelity to the text and give attention to detail. In line with Lacan's prioritisation of the signifier, I started mapping the Symbolic⁶⁰ network of the collected enunciating acts as they manifested. Mapping the Symbolic network means analysing the unfolding signifying chain as knowledge in which our subjects are caught and which they put to work. I first focused on the system of structuration of language, equivalence and differentiation, words and phrases, grammatical associations and structures. For example, as a way of mapping the Symbolic in the case of the EU's climate mitigation action, I traced the signifying sequence that binds together climate change, mitigation, knowledge, energy efficiency. This means that I am not trying to reveal any hidden meaning behind the surface of the text but rather explore how objects, subjects and relationships are constituted in the surface of the text-speech (Parker, 2010, p. 158; Parker, 2005, p. 167). To analyse the role of knowledge and the subject's relation to this knowledge, I traced the points where knowledge is presumed, thus where it emerges as a presupposition of sense. For example, Chapter 4 starts with a stakeholder event during the long-term strategy preparation phase that welcomes the upcoming knowledge exchange as rational and animated by a spirit of free enquiry (see 5.2).

In fact, this mapping helps isolate potential Master Signifiers, which is what anchors representation, naturalises and gives cohesion to discourse (Parker, 2005, p. 170). The Master Signifier can be recognised as that signifier in function of which knowledge is put to work and a seemingly consistent discourse is produced. For example, in interrogating the type of knowledge that underpins the EU's climate action throughout Chapter 5 I proceeded by holding this alleged knowledge neutrality and free enquiry in tension with some other elements in the text that hinder that neutrality, such as the necessity to preserve the EU competitiveness, or the epistemological reflection on what constitutes evidence-based knowledge. This way it is possible to establish if climate "mitigation" is a dominant signifier

⁶⁰ The shared visible, linguistic network. As opposed to the Imaginary, the realm of meaning and individual representation, and the Real, produced by the Symbolic as an excess-loss of meaning.

that commands and sets the overall direction of the policymaking or alternatively if the knowledge it mobilises is in fact commanded by another authority.

Mapping the Symbolic and isolating potential Master Signifier(s) is also a way of breaking down the text. In fact, the anchored reading of a seemingly consistent signification can be disrupted and several possible understandings and different perspectives on the text can be generated. More specifically, it is precisely this exercise of disruption and disorganisation of the text that makes it possible to detect the surplus-leftover of meaning, rendered visible in gaps, weaknesses and contradictions, in that the unconscious is what functions as lack, absence in the text (Parker, 2005, p. 169-171). In short, the exercise of disruption helps detect the fractures where the discourse reveals itself as a discourse of impossibility. For example, in Chapter 5 we see that *energy efficiency* as a presupposition of sense mobilizes and keeps together a set of socio-political climate relationships between policymakers, stakeholder and citizens around delivering reductions in emissions. However, I will show that at different times of the enunciation *energy efficiency* is spoken as a legislative act, as an equation, as a technology, as economic savings and these are not always consistent with one another. This way the discourse of knowledge as represented by “energy efficiency” results always as partial and its meaning deferred across the signifying chain, as an effect of the surplus-loss of signification produced in the enunciation.

Building on this, I can link the analysis to Lacan’s theory of the four (or five) discourses and regard the EU’s climate mitigation action as one of the social bonds detected by Lacan. More specifically, in 3.3 I established an opposition between the University discourse and the Hysteric discourse as well as a parallel between the University discourse and the Capitalist discourse. This is not an exercise per se. In fact, I argue that this conceptual apparatus allows us to reflect on what underpins EU’s climate knowledge and how we understand the “objects” of identification that are key to this transition, such as energy efficiency, renewables or circular economy. Thus, it is by referring to the four discourses that we can observe how the emerging ruptures in the discourse are handled either by being positively integrated into signification or by disrupting it. In short, we can regard these fractures as the real ground for reflection on the type of climate transition that the EU wants to implement as well as reflect on what constitutes a change of discourse. Alternatively, we can explore if these fractures are able to at least shake the foundations of discourse. For example, in Chapter 6 I argue that at first *circular economy* was perceived as a disruptive element that would ideally point to reorganising our socio-economic relations and to the way in which

knowledge is produced and exchanged. For this reason, it was strongly resisted and the whole circular economy project was at first withdrawn. At the same time, I illustrate that its reintroduction within discourse, what I define as the “acceptance” phase, has entailed a loss of the traumatic but liberating potential that “circularity” carried with it, which might have produced a real change (see 6.4, 6.5 and 6.6). When choosing methods of data collection and methods of analysis, implications and limitations for the research practice must be acknowledged. These aspects will be therefore addressed in the next section.

4.6 Implications of positioning in the field and conducting an LDA

Using participant observations and interviews within a Lacanian approach must be accompanied by a reflection on the relationship between those observed and the researchers-observers as well as on the data collected and analysed. Although both in-site observations and interviews help collect an extensive sample of enunciating acts about how climate policy is forged, an important methodological distinction between these two methods of data collection must be drawn. Conducting participant observations means observing concrete manifestations of discourse beyond the researcher’s control, and in which the s/he accepts to be involved as a passive, although not neutral, observer. Indeed, a stakeholder consultation itself, as a practice that fits into a policy making process is an instance of discourse that would occur regardless of the presence or absence of the researcher. By contrast, information retrieved through interviews is an ad hoc situation created by the researcher. In fact, this involves a greater freedom but also deeper interference by the researcher who gives inputs even by simply acting as a facilitator in the ongoing dialogue. Consequently, in an interview context, there is a greater freedom to structurally introduce elements of disturbance in discourse (Lacan, 2007, p. 35).

Hence, it can be argued that observing, interviewing and conducting a Lacanian Discourse Analysis implies a certain ethical position. In fact, when I observe an event, I read a text or I listen to someone speaking and being interviewed, I inevitably engage in a process of identification and I impose our meanings on the text. This would mean that, in the act of receiving a message, I already distort a given text. Reading without meaning is possible only in cases such as conducting grammatical analysis or corpus linguistics analysis. However, to make something meaningful we inevitably position ourselves in relation to the text. Therefore, I cannot use language to deduce “truths” from language (Parker, 2014, p. 46). In the previous chapter I argued that for Lacan every reality is defined by discourse and every subject emerges from discourse. This is the reason why Lacan said that “there is no

metalanguage”, namely no God-eye on language (Parker, 2010, p. 166). The fact that there is no metalanguage through which to explain language objectively means that the researcher too is involved in discourse and never steps outside of it, in that it is not possible to stop the process of identification with the text in the very same attempt to make it meaningful. Thus, every act, move, word that comes from the researcher is an act, move, word in discourse and these are all types of “intervention” on the data that cannot be avoided. This is true when referring to the data collection process, such as during an interview, but this is especially the case of the a-posteriori analysis following data collection. By way of example, the researcher acts as someone who questions and interrogates the signifying chain whenever a contradiction is spotted during an interview. It means that the research is adopting the perspective of the Hysteric by challenging the authority of the “Master”. The researcher can alternatively follow the logic of discourse during an interview to see how far it goes, for example asking more questions about climate change modelling, and observe the effects on the speaking subjects.

When speaking of meaning, we must remember that it is impossible to know the individual single mental representation of the speaker, that is his/her own Imaginary (see 3.2.5 for the three registers of discourse). Thus, I cannot search for imaginary similarities, but the signified (meaning) is reduced to the sense, meant as what the signifier and signified share, where they intersect (Pavón Cuéllar et al., 2010, pp. 2-7; Neill, 2013, p. 339). For example, when speaking of renewables, it is impossible to know if my interviewee is thinking of “wind turbine” or “solar panels” or the source of energy, but we share the fact of talking of a “set of energy sources that can be naturally replenished and its related technologies”. Moreover, even when I think that I might have found a potential Master Signifier, I should not fall into the trap of thinking I am outside discourse, as I cannot stop the process of identification with the text. However, the LDA exercise explained in the previous paragraph can help generate possible interpretations, so that it is possible to denaturalise the dominant representation and open alternative possibilities based on the produced signifying patterns. I shall now turn to the empirical part of this research project, with the aim of analysing how the current climate change mitigation policy is thought and constituted in the period in between strategy. Chapter 5 will disrupt a seemingly closed discourse of climate mitigation “knowledge” and will use the case studies of *energy efficiency* and *renewables*. Similarly, but with a slightly different turn, Chapter 6 will focus on the effects of a relatively new signifier, that is *circular economy*, in discourse. The case studies selected make it possible to reflect on the nature of

the current EU's climate transition, detect any fractures in discourse and reflect on their transformative character depending on how the produced fractures are handled in discourse.

4.7 Conclusion

The chapter has translated the theoretical framework outlined in Chapter 3 into a research practice and analysis. In this respect, I started by briefly outlining what the EU's climate action consists of and reconstructed the policy landscape at the crossroad between the institutional level and the international level. Then I conceptualised the field as the place where the moment of the enunciation is manifested. More specifically, building on a distinction between the enunciating act and the enunciated fact, I emphasised how the enunciating act is the moment when the mutually presupposed relationship between discourse and subject is manifested. Hence, I justified the need for conducting research in the field because it makes it possible to go beyond the enunciated fact of a carefully drafted policy document and observe the moment of the enunciation in which all the elements of discourse, that is the socio-symbolic and the excess-leftover of sense qua Lacanian subject, emerge. Drawing this distinction between enunciated fact and enunciated act is useful for the purposes of this analysis because of the gaps, weaknesses, contradictions that emerge, as a consequence of a subject split between the pursuit of desired climate objectives and the socio-symbolic network they mobilise. Building on this, the focus on the enunciating act has justified the need for empirical research in those sites of climate policymaking where I can conduct participant observations and interviews.

The Chapter then provided an account of the fieldwork activities conducted between November 2017 and December 2018 in terms of participant observations and interviews and explained that I observed the EU's climate policymaking at two important stages. The first one is the EU institutional level, where I observed all the relevant climate events occurring at the Brussels headquarters. As the EU's climate policy does not take place in isolation from the wider UN climate governance, I also conducted participant observations at COP23 and COP24 where the EU is a main negotiator and where the EU participates with a series of ad hoc side events on its policymaking. The chapter continued by outlining how I conducted interviews. Considering the variety of actors and their different level of engagement with the interview, I explained how my approach to interviews has been varied and adjusted on a case-by-case basis. In general, open-ended, in-depth interviews with a horizontal, cross sectoral approach to the different departments and institutions have been preferred to observe and record the language associations produced. As with the content of the interviews, a

combination of procedural questions and policy content related questions were adopted, as the procedural part would set the tone for the unfolding metonymic signifying chain, in that the policy content answers were more likely to be affected by the interviewee's role. Participant observations and interviews were complemented by another tool, "netnography" which allowed me to exploit the web resources provided by the EU Commission's and the EU Parliament's websites to organise interviews and trace the ongoing climate-related events while in Brussels. Moreover, I would make use of the web resources to scrutinise the official policy documents referenced during events of interviews for fact checking.

This data collection practice has been operationalised into a Lacanian discourse analysis. In line with Lacan's prioritisation of the signifier, I started mapping the Symbolic and focused on the system of structuration of language. Mapping the symbolic means analysing the unfolding signifying chain, thus knowledge, in which our subjects are caught and which they put to work. To analyse the role of knowledge and the subject's relation to this knowledge, I can trace the points where knowledge manifests as a presupposition of sense. I have also shown that mapping the Symbolic is a way of breaking down the text. In this regard, the mapping exercise helps me to isolate potential Master Signifiers. This way it is possible to establish if climate "mitigation" is an anchor of representation or alternatively if the knowledge mobilised is commanded by a different authority. Furthermore, I argued that the anchored reading can be disrupted and several different perspectives on the text can be generated. It is precisely this exercise of disruption that allows to detect the unsymbolisable excess-leftover of meaning that are visible in the gaps, weaknesses and contradictions that make discourse partial and inconsistent. The exercise of disruption helps detect the fractures where the discourse reveals itself as a discourse of impossibility and building on this, conducting LDA means also referring to Lacan's theory of the four discourses. This is not an exercise per se as this conceptual apparatus makes it possible to reflect on what underpins the EU's climate knowledge and how we understand the "objects" of identification that are key to this transition, such as energy efficiency, renewables or circular economy. Hence, we can regard the ruptures in discourse as the real ground for reflection on the climate transition and assess whether we are witnessing a change depending on how these traumatic points are handled, that is either by being positively integrated into signification or by disrupting it.

Finally, I discussed the implications and limitations of this methodological positioning and argued that conducting a Lacanian Discourse Analysis means engaging with a process of identification with the text in an attempt to make something meaningful. This way we

inevitably impose our meanings on the text as there is not a metalanguage that explains language objectively. Rather, the researcher never steps outside of discourse and acts either as the “hysteric” that is someone who either questions the hegemonic knowledge or, alternatively, follows the logic of the status quo discourse to observe its effects on the subjects. As a result, the next two Chapters will present an analysis of empirical material collected during my fieldwork activity.

Chapter 5. Climate change mitigation as “knowledge”: the case of energy efficiency and renewables

5.1 Introduction

This chapter analyses how the current climate change mitigation policy is thought and constituted by the speaking subjects. Within these spoken signifying structures, discursive interdependencies between climate, energy, environment and the economy are constituted in relation to the period referred to as “in between strategies”. The aim of this exercise is to reflect on the nature of the current EU’s climate transition, detect any fractures in discourse and reflect on any possibility of change of discourse. This chapter is structured as follows.

First, starting from the logic of the signifier as detected empirically, the EU’s climate mitigation action is placed in the context of knowledge. More precisely, this knowledge is hailed by the EU as evidence-based, neutral and objective and is claimed as the driving force in climate mitigation action. However, during an official consultation this spirit of free enquiry is immediately associated with on the one hand the fight against global warming and on the other hand the state of the economy. Consequently, I expand my investigation on the work of the EU representatives as facilitators of a quantifiable and rationalised knowledge that is mutually reinforced by a rigid bureaucratic work organisation across policy areas.

The chapter continues by illustrating how thinking beyond this objective, quantified, bureaucratized knowledge becomes impossible and that any alternative form of thinking that deviates from measurement and rationalisation is discarded. As a result, we can discern the nature of this allegedly evidence-based knowledge in the disavowal at play of its real authority, which is never questioned. It is this disavowed command, embodied in the central role of the consumer in the transition to the low carbon future, which constitutes the real authority of the signifying chain, the Master Signifier. This command, which is expressed for example by “growing competitiveness”, and as such points to other chains of “accumulation” and ultimately “growth”, constitutes the logic boundary of signification, what gives apparent stability to signification within our social bond thereby creating the illusion that reality is perfectly intelligible. As a consequence of this anchoring point, *climate change* and *mitigation* acquire meaning within the signification space determined by climate change mitigation qua energy transition, formalised by the central role of the consumer. Consequently, *energy efficiency and renewables* appear to be concrete manifestations of this climate reductionist knowledge put to work.

Despite its apparent stability one should not think of discourse as a closed structure, but as open and fractured. Ruptures in discourse can be explained by the intervention of the subject of the (unconscious) enunciation, which is produced by language as a surplus of sense and can be rendered visible in the gaps and weaknesses that make the discourse inherently partial and inconsistent. Indeed, I show that the subjects observed and interviewed are split between the powerful linguistic structures defining them and the desire to come up with an effective climate action. To do so I first disrupt the locked reading with the aim of generating possible alternative interpretations around *climate change* and *mitigation* as expressed in this context of knowledge. I show that the sliding of *climate change*'s signification as a biophysical phenomenon into the energy signification space excludes all the other related human induced environmental issues such as pollution, biodiversity loss and ecosystem damage. These other interrelated environmental issues persist in fact as an excess-loss, which is at times challenged by the more progressive stance of DG Environment that warns about those climate solutions that can have other disastrous general environmental consequences. Then, I continue by illustrating the partial character of *mitigation* where its meaning is perhaps dependent on its institutional character and the silos' signification spaces, which are an expression of a bureaucratisation of knowledge and organisation of work.

Moreover, I zoom in on *energy efficiency* and *renewables* as derivatives of the “climate mitigation” + “energy transition” metonymy to investigate their transition and mitigation potential. In the chapter I show that energy efficiency and renewables as a presupposition of sense mobilize a set of socio-political climate relationships between policymakers, stakeholders and citizens around delivering emissions reductions. At the same time, they are both spoken in different forms and shapes which are not all necessarily consistent with one another. These inconsistencies embody the surplus of meaning in the enunciation, which results in a partial, never achieved and deferred meaning across the signifying chain. In this respect I argue that these traumatic points in discourse do not emerge as an irreversible rupture but are positively integrated into signification by being turned into commodified knowledge and into consumption objects.

Finally, I address the unofficial policy landscape observed, such as the Postgrowth Conference, where there are subjects such as scientists and academics who attempt to shake the foundation of the University/Capitalist discourse by overtly challenging the hegemonic knowledge with regard to what constitutes evidence-based knowledge, the side effects of energy efficiency and the feasibility of the “renewable transition”. Overall, I conclude that

the EU's climate mitigation action as embodied by energy efficiency and renewables appears to be a deceptive transition, under the semblance of an efficient and perhaps renewable but stable "Master" of competitiveness and economic growth. This social fiction, which is what makes access to material reality possible, is supported by the fantasies of efficient products and renewables that promise to cover the impossibility of discourse and create a continuous sense of paradoxical (dis)satisfaction that does not seem to attain the full enjoyment of the desired climate objectives. In fact, in this current phase of policymaking, every encounter with the fractures of discourse as a potentially disruptive instance is resisted, that is to say, minimised or downplayed. Consequently, these do not emerge as disruptive forces capable of producing new significations and real change.

5.2 Climate mitigation action: "knowledge" at work

5.2.1 The mobilisation of knowledge

This section presents the EU's climate action as a discourse of knowledge. This knowledge, informing the official consultation about the EU long-term strategy, is welcomed as evidence-based, objective as well as legitimised by science and reason. For this reason, I decided to focus my investigation on DG Clima and DG Energy, the two key DG's in the European Commission responsible for energy efficiency and renewables. In this regard, I argue that EU representatives emerge as facilitators of a rationalised quantifiable and valorised knowledge that is mutually reinforced by a bureaucratic work organisation across policy areas - a "silos" approach to work – and that these set the direction for climate mitigation action. I conclude that the relationship between "fact-based knowledge" – as expressed by quantification and rationalisation – and climate is more complex than it seems, and I open to a line of enquiry that investigates the implications of this type of climate knowledge.

Within this framework, observations in the field revealed that knowledge is the ultimate authority that underpins the EU's climate action. For example, the official stakeholder consultation about the long-term strategy "The EU vision for a clean, modern and competitive economy" (see Table 2 in Appendix) was held at Université libre de Bruxelles (ULB). The event opened with a keynote by Alejandro Ulzurrun, DG Energy Communication and Interinstitutional relations Head of Unit. He opened his speech with a link to "university" as metaphor for knowledge, as well as with a direct reference to "university" as the place where evidence-based knowledge is produced and exchanged:

*This is not a conference venue. **This is a university. And this is a choice. Debates have been held, fact-based discussions have been held, knowledge has been exchanged*** (Alejandro Ulzurrun, 10/07/2018).

Pierre Gurdjian, the President of ULB goes further in sealing the social deal of climate action, university, and knowledge:

*[...] **dialogue illuminated by reason and science. The University has a key role to play in our societies to address the problem we're all facing [...]. Universities are places where truth is upheld as a core value. Research infuses the rejuvenation of knowledge, where young minds are prepared for successful lives. Places that are naturally linked with all facets of society. Where ideas flow freely, inspired by free enquiry*** (Pierre Gurdjian, 10/07/2018).

In both extracts, the unfolding signifying chain denotes a sort of legitimisation from “science and reason” and “free enquiry” that should inform the upcoming consultations with the stakeholders. As both the name of the event and the keynote speech from the Climate and Energy Commissioner Miguel Arias Cañete suggest, this spirit of free enquiry and reason is immediately associated to the fight against global warming and that of the economy:

*We are here to discuss the EU vision for an **economy that is clean and sustainable, more competitive and fit for the twenty-first century. We are here to reach out to all the stakeholders, discuss direction and speed of travelling to fight against global warming*** (Miguel Arias Cañete, 10/07/2018).

Therefore, at this stage we can keep our understanding open as to whether this consultation is about a climate-friendly economy or an economy-friendly climate. With this possible double interpretation about the knowledge that informs the EU’s climate mitigation policy, let us expand more on how the lead DG in climate action, that is DG Clima, works on an every-day basis:

*My role in DG [...] is **supporting my hierarchy of policymaking in general with economic quantitative data that typically involves working with scientists at large that provide economic data to see what they can basically send to us, what reports are there, and to translate that into policy relevant analytical recommendations. We do that in this***

unit for what we call horizontal features. So, it's not a specific policy but it covers the whole economy. That's why we try to do that. We do that both at EU level as well as the international level. So, in my team a number of people look at EU's climate policy in aggregate: energy policy, agriculture policy, industrial policy, environment policy, employment policy, regional policy - cause it all matters in total if you want to address climate change. We try to the extent that is possible to quantify elements of that and another part of my time follows international negotiations and try to provide similar quantitative data there. What other countries are doing? How does it relate to what the EU is doing? How does that action on a global scale add to or might be needed to achieve certain temperatures goals? (Interviewee 4, 12/10/2018).

As this DG Clima interviewee explains, the EU officials facilitate the exchange of a knowledge that mainly consists of economic quantitative data so that they can be translated into relevant policy recommendations. From this extract we have a better understanding of knowledge as a quantifiable and rationalised entity: “we try to the extent that is possible to quantify elements” (Interviewee 4, 12/10/2018). The exchange is in turn mutually reinforced by a horizontal and vertical bureaucratic organisation of work across policy sectors: “in my team a number of people look at the EU's climate policy in aggregate” (Interviewee 4, 12/10/2018). The following extract, from DG Research and Innovation better explains how the Commission work has evolved in terms of climate aggregate policy:

*I've been 20 years in the Commission. One of the evolutions is that **the work has become more and more horizontal, diagonal, coordinated, whatever word you want to use, but less and less in separated silos.** When I joined 20 years ago my first field of responsibility was called **clean coal technologies for power generation.** And that was it. I was not talking to transport, bioeconomy, or any other specific field. So, things have changed a lot [...] Not for the simpler as it has made **everything more complex**, but for the better (Interviewee 9, 16/11/2018).*

As this interviewee explained, the evolution concerned overcoming as much as possible their strict bureaucratic “silos” approach to work. However, in the next few sections as well as in the next chapter, we will notice how this silos division unintendedly returns in speech. This is relevant as it implies a reductionist conceptualisation of climate change itself (see 5.3 and 5.4). As the examples unfold, we notice how this quantified, rationalised and bureaucratised knowledge apparatus is mobilised and expressed as a set of apparently neutral signifiers such

as *quantitative data, fact-based, analytical recommendations, aggregate policy*, that claim to be rational and objective and which set the overall direction to climate mitigation action. On the other hand, we might wonder whether these quantifications are indeed an expression of a true scientific enquiry. For this reason, the next two sections will further investigate the “fact-based knowledge” that underpins the EU’s climate mitigation action.

5.2.2 The disavowed nature of knowledge

In this section, we start perceiving that the relationship between these quantifications qua knowledge and climate mitigation action is more complex than it seems. In fact, it appears that thinking beyond this objective, quantified, bureaucratized knowledge becomes impossible and that any alternative form of thinking that deviates from measurement and rationalisation is discarded. I illustrate that the nature of this climate evidence-based knowledge can be understood if we consider that a disavowal of a deeper injunction seems to be at play. More to the point, it seems that the EU does not want to impose any behaviours in the name of freedom and democracy: however, behind this apparent freedom lies a hidden command, regarded as natural and factual, that cannot be questioned. It is this disavowed order, embodied by the central role of the consumer in the transition to a low carbon future, that commands in truth the signifying chain of climate change mitigation knowledge. More importantly this emerges explicitly through an association between climate change mitigation as low carbon future and the energy transition, which has important implications for a reductionist conceptualisation of climate change mitigation.

In the following extract from DG Research and Innovation (known as DG RTD or R&I), the conversation shifted towards the relationship between knowledge and measuring regarding climate change mitigation:

So, to look beyond GDP, one problem is that it has several definitions. You can look at different things, you can try and have another monitoring measurement or growth which would include GDP but also include externalities of some of your activities like the cost of carbon, to take a famous example. And then you have a monitoring measurement of activity which is more than just growth domestic product that’s one thing, but can you extend it to many other things, way beyond GDP which do not have a monitoring measurement like well-being like are you happy? [...] But you’re not going to tell me an answer in euro or in dollars. How do you measure this? How do you scale it? How do you compare it? How do you integrate it into one number or several

numbers to measure growth? You could have GDP, you could have well-being, you can have education, happiness, there are so many ideas, some of which are purely in terms of monitoring units, some others are not that. To agree on one is the level of difficulty, how do we compromise? How do we do the trade-off between for instance GDP and happiness to take just two? How do we choose? There's going to be a balance to find and all of those difficulties probably will result in the fact the world is still governed by GDP, money, with all the distributional difficulties of it (Interviewee 9, 16/11/2018).

From this extract, we realise that the assumption of fact-based knowledge within our social bond is more problematic than it seems. It can be argued that thinking beyond this objective, quantified, bureaucratized knowledge becomes impossible. The latter is so powerful that any alternative form of thinking that deviates from measurement and rationalisation is discarded: “Are you happy? but you’re not going to tell me the answer in dollars or euros, how do you measure this?” (Interviewee 9, 16/11/2018). It can be said that the nature of the evidence-based knowledge at work in climate policy is in fact more insidious: it looks like it is factual and natural, but its real performative and political dimension is disavowed (see Žižek, 2004, p. 394). The disavowed dimension of the social bond emerged several times during interviews. For example, I asked a speaker from DG Clima whether the fact of imposing any collective change of behaviour, rather than a softer approach such as educating or raising awareness, would be more beneficial to climate objectives. The effect this question had on the subject is visible in the following extract:

The answer is no, probably it would be the contrary. You probably would be seen as a dictator, you want to dictate what other should do, should eat how fast they should move and that is not going to work in a democratic society. So, if you want to see more change in what people do in their own lives in terms of their consumption patterns you need to educate you need to raise awareness. But I think that, just take as an example discussion about nutrition and food. Think of how much advice you would get good or bad, of the 55 different ways of doing a diet. And you also have scientist who say it's all crap so you think that an area where yeah people will have long discussions (Interviewee 10, 21/11/2018).

This extract shows that as soon as I introduced an element of defiance such as a tougher approach for the sake of climate mitigation objectives, a degree of intolerance towards a “command” emerged and the ghost of authoritarianism was invoked. This aspect leads to

question whether a disavowed command is operative under apparent neutrality. In fact, on the one hand it appears that the EU does not want to impose any behaviours in the name of freedom and democracy. However, behind this freedom and democracy mask lies a hidden command that goes unquestioned, “their consumption patterns” (Interviewee 10, 21/11/2018), considered as natural and factual. This disavowal of the performative dimension of the social bond seems to be constantly at play, as it emerges in the following extract from DG Energy when speaking of the “real world”:

*But the **constraints are real world constraints, they're not political constraints**, but it's not anybody. I mean, possibly, I would be able to persuade people to launch a campaign that says - wrap up warm this winter! But I don't try to lodge a campaign that says wrap up warm this winter' because that **doesn't make best use of what is distinctive about the Commission, which is law and money** and, 90% law and 10% money. And a law that says wrap up warm is the wrong thing you know, the future, trust (Interviewee 8, 14/11/2018).*

This speaker, besides restating the distinctive role of the Commission as a neutral, quantifiable, regulatory agent, quantified as “90% law and 10% money”, leads us to understand that we are in fact subject to orders, “real world constraints” (Interviewee 8, 14/11/2018). Although I cannot investigate the individual mental representation of the speaker and see what his/her “real world constraints versus political constraints” really is, I can explore possible interpretations. For example, can the real-world constraints be the real degraded biophysical reality in which we all live in? In this case, there would be no plausible reason for considering it a constraint. Alternatively, can the “real world” be the economic or financial constraints that regulate our lives in society? This seems to be a plausible interpretation that links back to what the DG RTD interviewee claimed when he/she spoke of a “world is still governed by GDP” (Interviewee 9, 16/11/2018). It looks therefore that we are within a social bond that does not tolerate an explicit signifier in the commanding position (obey!) but that this command has to be shared in the democratic way of consumption, which would be associated with Lacan's University discourse.⁶¹ This argument is in line with Pavón Cuéllar et al. (2010) when they claim that the University discourse does not tolerate one signifier to monopolise the commanding position. Rather this

⁶¹ While the relationship between knowledge and the Master is explicit in the Master's Discourse (S1-S2) where the Master Signifier S1 is the Agent and thus gives direction to the overall discourse, the discourse of the University appears to be more a Master discourse in denial, meaning that there is a master S1 commanding the discourse of knowledge as presupposed truth.

disavowed position must be shared in a democratic way by the wisdom of signifiers on equal footing, under the façade of tolerance, freedom, objectivity and political correctness (Pavón Cuéllar et al., 2010, pp. 264-265). As a result, if the Commission orders “wrap up warm in winter” (Interviewee 8, 14/11/2018) for the sake of climate objectives, this would mean speaking from a position of the explicit Master demanding obedience, which is at odds with the ideals of freedom and democracy. In truth the disavowed commands that dictate consumption patterns exist and commands all the signifying chain. A similar example is provided by DG Clima, where instead of “real world”, a reference is made to “real life”:

*But then the next question is ok **what type of climate one wants to stabilize? How much effort we have to do now?** That’s also quite easy - 2 degrees for a long time - and then, after Paris, we have to pursue effort - 1.5 - that increases the need of ambition. So that’s what we are working on and stakeholders they have different opinions. I mean if you go to sort of NGOs who are very, who only **base their view on equity they ask for, I would say, emissions reductions that are not achievable in real life** (Interviewee 4, 12/10/2018).*

In this DG Clima extract, something very similar to the “real-world” constraints emerges and is rendered by “emissions reductions that are not achievable in real life” (Interviewee 4 12/10/2018). Again, the performative and political versus the factual character of the “world” emerges. The “real life” is perhaps not meant as the environmentally degrading planet that we live in, insofar as this cannot be regarded as a constraint to emissions reductions; but perhaps it can refer to the economic or financial constraints that regulate our social bond. This results in the paradox of performatively creating two “fictitious” types of planets to stabilise: “the next question is ok what type of climate one wants to stabilise” (Interviewee 4, 12/10/2018). The effect of the disavowed command emerges more explicitly at Session I of the stakeholder consultation “the EU vision for a clean, modern and competitive economy”. This session was called “Cost -efficient ways for achieving a post-carbon European economy” and DG Energy’s Director general Dominique Ristori explained the role of the consumer in the transition to a low carbon future:

*[...] the world economic strategy as a real economic opportunity. This is clear when we’re thinking of the profitability of all this exercise for the world population. And we’re placing **the consumer to be put at the centre of the scene, the citizen at the centre of the***

scene. This will be part of a new economy of a new decentralized energy system (Dominique Ristori, 10/07/2018).

This emphasis on the role of the consumer is restated more strongly by DG Energy's Director Renewables, Research and Innovation, Energy Efficiency, Mechthild Wörsdörfer, at the same event during a session called "Benefits of a low-carbon world for all Europeans – a Citizen's perspectives:

This session is about consumers, all of us being consumers. How can we contribute to this clean energy transition, to the low carbon technology decarbonization for the future? So we have an excellent panel here with a lot of different groups represented and we have also in our Clean energy package (2030 Ed.) a couple of measures for consumers to make them more proactive, be it on energy efficiency which is an obvious candidate for energy consumers, energy products, labelling where we can do more. It's also our Renewables Directive, which was voted this morning, where we have an article about self-consumption. But we have many other examples in our Clean Energy Package, where we want to be more proactive consumers and participants" (Mechthild Wörsdörfer, 10/07/2018).

It can be argued that the untouchable role of the subject-consumer is emphasised as a core element guiding the transition to a low carbon future. Furthermore, we can now observe a close association between climate change mitigation, as low carbon future, and the energy transition: "This clean energy transition" (Mechthild Wörsdörfer, 10/07/2018). For this reason, the next section will briefly illustrate how the anchor of representation gives relative meaning stability to discourse and, building on that, section 5.2.4 will investigate the possible fractures of the climate mitigation discourse as energy transition.

5.2.3 The anchoring point of representation: the command of knowledge

Climate change mitigation action has been spoken as a discourse of allegedly neutral knowledge. This means that knowledge is in fact commanded by an order that gives the direction to the discourse and thus regulates our intersubjective relations in the climate field specifically, and in society more generally. This disavowed command has begun to emerge in the previous section with a preference for the factual role granted to the "consumer" over a tougher approach for the sake of climate objectives.

In this section I focus on the command of discourse and its role, what Lacan called Master Signifier. This authority, which can be expressed for example in the emphasis on a “growing competitiveness”, points to another signification chain of accumulation and ultimately economic growth. This anchoring point represents the logic boundary of signification, what gives apparent meaning stability to the signifying chain and the illusion that reality is perfectly intelligible. More importantly, this is the necessary anchoring point that holds the whole discourse together. Indeed, a Lacanian approach suggests that without this Master Signifier the social link would lose its symbolic efficiency. As a consequence of this anchoring point, the juxtaposition of climate action with energy transition is relevant, as *climate change* and *mitigation* acquire meaning within this signification space, which results in a reductionist conceptualisation of climate change as a biophysical reality separated from the rest of the environment. Consequently, as we will see *energy efficiency and renewables* appear to be concrete manifestations of this climate knowledge at work (5.4 and 5.5).

In the previous extracts the anchoring point of representation was at times hidden and was not mentioned in the “text”. However, it can be recognised in the text as that something which makes things work. For example, DG research and innovation (known as DG RTD or R&I) and DG Clima published a 160-page report called “Final report of the High-level panel of the European Decarbonisation Pathways initiative” (EU Commission, 2018), shortly after the release of the 2050 long-term strategy. The high-level panel is composed of experts and institutions outside the Commission and in their Executive summary we read that the DG RTD Commissioner Moeda requested the High-level panel members to work on the following question:

What strategy to adopt in Research and Innovation in order to speed up and foster mitigation policies in the EU that respond to the goals of the Paris Agreement, while growing competitiveness of the EU Economy? (High Level Panel report, 2018, p. 18).

As we can see the question points to the “growing competitiveness” as the logic limit of signification, and we can assume, those mitigation policies that would not increase the EU competitiveness would be excluded. In turn, competitiveness would point to another battery of signifiers of production, consumption and accumulation, and ultimately, economic growth, as the anchoring point of our social order. In fact, in the long-term strategy Communication (COM (2018) 773 final) the halting, anchoring function of modernisation and competitiveness is made explicit:

The European Council, in June 2017, strongly reaffirmed the commitment of the EU and its Member States to swiftly and fully implement the Paris Agreement, underlining that the Agreement is a key element for the modernisation of the European industry and economy [...]. The EU, responsible for 10% of global greenhouse gas emissions, is a global leader in the transition towards a net-zero-greenhouse gas emissions economy. Already in 2009, the EU set its objective to reduce emissions by 80-95% in 2050. Europeans have managed to successfully decouple greenhouse gas emissions from economic growth in Europe for the past decades. Following the peak in EU greenhouse gas emissions in 1979, energy efficiency, fuel switch policies and the penetration of renewables reduced emissions significantly. In consequence, between 1990 and 2016, energy use was reduced by almost 2%, greenhouse gas emissions by 22% while GDP grew by 54%. The clean energy transition has spurred the modernisation of the European economy, driven sustainable economic growth and brought strong societal and environmental benefits for European citizens (COM (2018) 773 final pp. 4-5).

This extract is interesting in three important aspects. First, it appears to confirm the role of competitiveness, and its associated chain of consumption production and accumulation, as anchoring function of the social bond: “Europeans have managed to successfully decouple greenhouse gas emissions from economic growth in Europe (COM (2018) 773 final pp. 4-5)”. On an abstract level, this anchor confers apparent meaning stability through the signifiers available to us and give us the necessary illusion of the “real life” (see 5.2.2), with all the related discursive practices appearing as factual: “emissions reductions that are not achievable in real life (Interviewee 4, 12/10/2018)”. Therefore, this Master Signifier is the actual anchor of representation of reality which represents the logical boundaries of discourse; the “something” that holds the social link – real life – together. Building on this, we clearly see the semantic juxtaposition of climate action and energy transition that had already been mentioned in the case of the consumer at the centre of the energy transition in a low carbon future (5.2.2). This is important in that, as we will see in the next section, *climate change* and *mitigation* acquire meaning within this signification space. Finally, following these two aspects the signification shifts towards *energy efficiency and renewables* as concrete manifestations of this climate knowledge at work. The climate action-energy transition metonymy therefore does not happen per se, but it should happen in function of the modernisation and competitiveness of the EU economy and industry.

At the same time, in the theoretical section, I maintained that the subject is not completely over-determined by a symbolic structure. Hence, one might wonder how the subjective dimension can emerge within these signification constraints. Consequently, while this first section has addressed the nature of climate knowledge, in the next sections I will conduct a Lacanian discourse analysis in order to detect any fracture in discourse and discuss any potential for rupture.

5.3 Disrupting *climate change* and *mitigation*

5.3.1 The signification space of climate change

The previous section helped place the EU's climate mitigation action within an allegedly neutral knowledge, that is in fact embedded in a signifying chain of competitiveness and ultimately growth. Within the discursive boundaries established by the Master Signifier, what apparently looks like a neutral, objective and rational knowledge is in fact put to work in relation to an injunction to accumulate, consume and grow. At the same time, we do not have to think of discourse as a closed structure. In fact, despite the apparent stability in representation and the illusion of a perfectly intelligible reality, discourse is by definition open and inconsistent due to the intervention of the subject of the enunciation – the subject produced by language as surplus of sense. As we will see in this section and the following one (5.4), the reason for this is that the subjects observed and interviewed are split between the powerful linguistic structures defining them and the desire to come up with an effective climate mitigation response through the same shared socio-linguistic structure.

Therefore, I argue that climate change mitigation takes shape as a socio-political reality in the narrower signification space of climate + energy. This in turn shapes and is shaped by practices such as the composition of the EU Commission, where DG Clima and DG Energy have the lead role in climate policy under the same (former) Commissioner. Moreover, it shapes and can be shaped by the actual policy outcomes and their implementation such as the 2030 “Clean energy package”. Consequently, this closure of signification regarding *climate change* as a biophysical phenomenon into the energy signification makes its signification always partial because it excludes all the other related human-induced environmental issues such as pollution, biodiversity loss, ecosystem damage. This residue of signification, however, is questioned by the perhaps more assertive stance of the DG Environment that warns about those political climate solutions that can have other disastrous environmental consequences.

In the following extract, an EU representative from DG Research and Innovation speaks of an actual system change:

*[...] We try to find research which is of a more cross sectoral nature than before. Research looking at not new specific technical devices but at socio economic aspects, behavioural aspects, **and all the things that are required for a system change** and that does reflect even the policy itself. Because when we wanted to go from 5% renewables to 20% renewables **was still the same system with a few solar panels and windmills, but you plug your kettle in the same old plug. Now we know that we run for a complete systemic change, a new society a new system a new behaviour, new social relations because of climate change mitigation.** We have to look at all of those aspects when we fund and do research and not just take down the costs of the latest windmill generation (Interviewee 9, 16/11/2018).*

The interviewed subject speaks of a “system change” and a “new society” that is not merely interested in adding a few more “solar panels” (Interviewee 9, 16/11/2018). However, how is this desire for an effective climate action and system change spoken through the shared socio symbolic structure?

To explore this further, let us start from *climate change* and *global warming* as signifiers. Climate change refers to a biophysical problem, the excessive temperature rise of our planet due to anthropogenic GHG emissions. For this reason, it is not surprising that climate change policy takes place within a signification space that is confined to energy. As an EU official at DG Environment explains:

*[...] historically the EU Commission climate policy **has been focused on energy.** This has some logic in that **75% emissions come from energy** (Interviewee 14, 29/11/2018).*

This “climate” and “energy” deal is reflected in the composition of the EU Commission where DG Clima and DG Energy have the lead role in making climate policy and set the overall direction of policymaking, under the same (former) Commissioner, which at the time of this study was Miguel Arias Cañete.⁶² We also see this work structure reflected in the stakeholder events and side events at the COPs around climate action, which are either hosted by DG Clima or DG energy (see Tables 1,2,3 in Appendix). Finally, the “climate”

⁶² The Juncker Commission and the Tajani Parliament have ended their term (2014-2019).

and “energy” nexus is reflected in the policy outcomes such as the 2030 strategy, as indicated in the title “Clean energy package”, as well as in all the references made to climate action qua energy transition. This is even more interesting if we consider that DG Clima is a recently created policy DG from a branch of DG Environment. Today the policymaking activities of DG Clima are more in line with those of DG Energy than those of DG Environment, as a DG Environment speaker explains:

We are not the lead DG on climate, but our role is to check and discuss with colleagues some of these political solutions that can have environmental consequences [...]. For example, the trade off with biomass. Under the last few years under the Renewable Energy Directive that is in force now, European countries have funded deforestation in third countries. DG Energy will edit this in the new version of the Directive (Interviewee 14, 29/11/2018).

As a result, climate policy seems to be signified in terms of energy policy. However, this “closure” of signification has important implications at the level of discourse as being spoken by the real subjects. If we think of climate change as a biophysical phenomenon, this fits within a wider framework of environmental degradation. For this reason, it should not be considered in isolation but in relation to other human induced environmental issues such as pollution, biodiversity loss, ecosystem damage, that is the planet in its wider understanding. In fact, all environmental aspects are inter-linked, as a DG environment official suggests:

[...] Yes, it's all linked, problems with biodiversity loss become more serious because of climate change and vice versa (Interviewee 14, 29/11/2018).

DG Environment, which is responsible for these other environmental issues, acts in a way that tries to keep signification open to all the other environmental aspects. Although DG Environment claims to have a marginal role in climate policy, it acts as the watchdog who warns about those political solutions that can have other disastrous environmental consequences. Consequently, climate change mitigation takes shape as a socio-political reality in the narrower signification space of climate + energy that keeps its signification always partial, with the rest of the interrelated environmental issues as an excess-loss “defied” as much as possible by the wider and perhaps more progressive stance of DG Environment. Therefore, within this signification space, how does *mitigation* acquire meaning?

5.3.2 *Mitigation* as nonsensical

In this section, I discuss the “nonsensical character” of the signifier *mitigation* by challenging its alleged meaning stability thorough the real subject of the enunciation and by exploring any emerging ruptures. I explore *mitigation* as nonsensical, not because there are no GHG emissions to cut down, or no global warming to mitigate, but because the way it is signified in the enunciation reveals each time its partial, never achieved character that we can detect in the inconsistencies that embody the residue of signification between the enunciated fact and the enunciating act. We will see that the meaning of *climate mitigation* within the EU is perhaps dependent on its institutional character and the silos’ signification spaces, expression of a bureaucratisation of knowledge and organisation of work.

In the following extract, I mentioned the signifier *mitigation* to the interviewee from DG Energy working on renewables and the Renewable Energy Directive:

[...] Because this is not so much mitigation, this is really achieving the target for a renewable energy (Interviewee 6, 7/11/2018).

From this assertion, we perceive a distinction between *mitigation* and *renewables* targets. As a result, I asked a question to clarify whether the two are related and in what way they are related:

[...] Yes completely. But you know there are some Member States that said - oh well but we don't need renewable targets we only want CO2 targets this is the only thing that matters. This is the position of some Member States, but this is not the position of the Commission. This is not perhaps the Renewables Directive. We say no, renewable energy in addition to climate change has other benefits. This is why there is a target for emissions reductions but there's also a target for renewables (Interviewee 6, 7/11/2018).

The discussion shifted here to “targets”. This can be linked back to the pattern of quantification and rationalisation that characterises the climate action social bond as discussed at the start of the chapter (see 5.2) according to which each concept is constituted in terms of measurements. By following the interviewee’s reasoning, *emissions reductions* and *renewables* are two different things as they are formalised by two different targets,⁶³

⁶³ As exemplified in the 2030 Clean Energy Package.

with the interviewee associating *mitigation* with the first target (emissions reductions) but “not so much” (Interviewee 6, 7/11/2018) with the other target (renewables). Therefore, prompted by the interesting associations, I asked the interviewee to clarify what *mitigation* in their view is (sic):

This is probably just institutional [...]. When I think about climate change mitigation I think of the activities of DG Clima, because they do these things about mitigation, about building dams, whatever is needed to cope with sea level rising or reforestation. This kind of stuff. And climate change preparedness, all of this is for me linked to Clima [...]. Of course whatever we say the key argument is emissions reduction, but I look at it from the energy point of view. And for us this is renewables and maybe at some point CCS. But, so for me, emissions reduction is, this is for us the subpart of mitigation, which is what we are responsible for, this is how I use the term but I'm not sure about anyone (Interviewee 6, 7/11/2018).

A few issues emerge in these extracts from this speaker. This speaker had at first distinguished *mitigation*, perhaps meant as emission reductions, from *renewables*: “but this is not so much about mitigation” (Interviewee 6, 7/11/2018). Thus, in the interviewee’s mind it is probably a matter of “targets” and emissions reductions and renewables are translated into two different targets. This distinction is understandable, as if we buy an electric car rather than a traditional diesel one, we are emitting less GHG emissions as the car is electric. However, if the electricity being used by the electric car is generated from either fossil fuels or renewables, this impacts the overall emissions reductions effects, which justifies the need for DG energy to differentiate between the two different targets. However, if the renewables target is “not so much mitigation” (Interviewee 6, 7/11/2018), the meaning of *mitigation* becomes dependent on its institutional character, “all the activities linked to DG Clima” (Interviewee 6, 7/11/2018). Thus, the “silos” approach re-emerges in speech.

Second, and perhaps more interestingly, the initial distinction between “not so much mitigation” (Interviewee 6, 7/11/2018) is rendered more inconsistent as the speaker contradicts him/herself by saying that GHG reductions (thus his/her mitigation) from that specific DG Energy unit’s point of view is Renewables and CCS,⁶⁴ and that becomes at the end of the sentence a “sub part of mitigation” (Interviewee 6, 7/11/2018). Whereas at the beginning of the conversation *renewables* was “not so much mitigation”, by the end it

⁶⁴ Carbon capture and storage.

becomes “a sub-part of mitigation” (Interviewee 6, 7/11/2018). At the same time, when referred to a colleague next door whose expertise is energy efficiency,⁶⁵ the same question is answered in a different way and *mitigation* is spoken as “all measures that result in less emissions compared to a starting point. Not reductions in absolute terms” (Interviewee 6a, 7/11/2018), which shows how all the speaking subjects deal with the fractures in discourse, the wound opened by the socio-symbolic network.

The discussion about how *mitigation* is spoken can be expanded even further. For example, another interviewee in DG energy associated *mitigation* with *energy efficiency*, or rather to energy consumption reduction, which logically originates from the metonymy climate action as energy transition in the signifying chain:

*Ok I'm [...] in energy efficiency and my job is to reduce Europe's **energy consumption*** (Interviewee 8, 14/11/2018).

In this conversation with one of the environmental stakeholders, namely CAN Europe, *mitigation* becomes something other than efficiency (targets) and renewable (targets), but remains further unspecified:

*What we have in common with these stakeholders is that we all believe that the EU should be more ambitious should **speak of higher mitigation targets but also energy efficiency targets, renewable targets etc*** (Interviewee 1, 19/07/2018).

Mitigation can also be controversial: in the Land use, land-use change, and forestry (LULUCF) sector, *mitigation* acquires a different meaning in that emissions are not merely anthropogenic, but they are part of the natural cycle, so whether you count them or signify them as *mitigation* is debatable. Moreover, in understanding climate action in terms of targets and modelling it is difficult to tell what type of emissions are included in the modelling, as a researcher from DG Joint Research Centre (JRC)⁶⁶ notes:

⁶⁵ On the same day, this interviewee referred me a colleague who accepted to answer a couple of questions. This interviewee however is not an official interviewee who agreed to sign a consent form therefore it is not indicated as one of the official interviews. In this case this source expressed his/her view on mitigation that is everything that contributes to GHG reductions.

⁶⁶ The Joint research Centre is the scientific body of the Commission. It is a non-policy DG.

Because whereas in the other sectors there are only emissions, it's all clearly anthropogenic. If you reduce emissions, you can count that as mitigation. In the forest sector everything is much more complicated because CO2 is absorbed by forests. It's part of a natural cycle that is perturbed by human action. It's very difficult how much of the emissions, how much of absorptions is due to human action or not. The concept of mitigation in the LULUCF sector is much more complicated than in the other sectors, it's very controversial (Interviewee 15, 30/11/2018).⁶⁷

We can expand that even further to see the associations that come up when thinking of *mitigation* or *mitigate*. In another interview with DG Clima, the need for mitigation is not, for example, a matter of planetary survival, but a cost-efficient action to undertake:

[...] the kind of narrative which we have been using at least for the last 25 years [...] that we need to mitigate because that is going to be much cheaper than adaptation (Interviewee 10, 21/11/2018).

In the extract below from DG grow it seems that mitigation spurs images of competitiveness for the industry. More to the point, *mitigation* is performed in function of the Master Signifier more explicitly:

Standards are primarily climate driven. So, you have the Paris agreement, you have what the EU would do to try to do and meet those targets and the whole range of measures. But one of course will be reducing the amount of pollution that comes from transport which is one of the biggest contributors to pollution as well as GHGs and CO2. So, you start from that that's all very well and good. But what is the impact on, what is important to industry in Europe in terms of employment innovation? So, a subsidiary priority for these standards is to say - well this is happening all over the world. China is particularly aggressive in pursuing. There's clearly a demand anyway for cars to be more, to be cleaner, so one of the things by introducing standards is that you encourage industry to invest more in innovation in this area so that they can remain competitive not only in the EU and meet the EU standards (Interviewee 11, 22/11/2018).

⁶⁷ Translated from Italian.

Similarly, following competitiveness, *mitigation* is worth considering as a matter of economic leadership, rather than as something to pursue because, for example, it threatens a basic resource like water, as the following speaker from DG Research and Innovation argues:

We will carry on trying to pursue our leadership role in the mitigation of GHGs emissions. Yes even though we hold only 10% on global emissions [...] not leadership for the pleasure of leadership, it's because it's in our interest we have to develop these technologies, those industrial sectors, those new ways of living in order to help our competitiveness, growth and jobs. It's not only climate from our thermometer point of view. It's in our own interest being in a leadership position (Interviewee 9, 16/10/2018).

From these examples, it seems that despite stating that today the work is more horizontal (Interviewee 9, 16/10/2018), *mitigation* is clearly a signifier which is pushed and pulled across the silos' signification spaces, which are themselves an expression of the bureaucratisation of knowledge and organisation of work.

In this section, I intended to reveal the strictly speaking “nonsensical character” of the signifier *mitigation* and to challenge its alleged meaning stability by emphasising the role of the real subject of the enunciation and exposing the fractures. In this respect, *mitigation* as such is nonsensical, not because there are no GHG emissions to cut down, or no global warming to tackle, but because the way it is signified in the enunciation reveals each time its partial, incomplete character which we can detect in the inconsistencies that expose the surplus of sense. Nevertheless, we establish, understand and maintain our climate change relationships by resorting to it as a presupposition of sense, due to the necessary anchoring function of the Master Signifier of competitiveness, accumulation and growth (see 5.2.3) and put knowledge to work through this shared socio symbolic structure.⁶⁸ As a result, it can be suggested that *energy efficiency* and *renewables* are signified within this existing battery of signifiers as a formalisation of this knowledge at work in this climate mitigation + energy transition nexus. The next section will therefore investigate *energy efficiency* and *renewables* at the level of their enunciation in order to understand what type of transition they are aiming to deliver and whether they carry any rupture potential.

⁶⁸ This is what we mean when we stated that we are spoken by language and cannot control all the effects of it.

5.4 Disrupting *energy efficiency* and *renewables*

5.4.1 Why energy efficiency and renewables?

Energy efficiency and *renewables* are the key signifiers for delivering emission reductions both in the mid-term and in the long-term plans. Furthermore, the cases of energy efficiency and renewables as knowledge at work, as well as the circular economy in the next chapter, are emblematic because in principle no one would argue against having equipment or devices that consume less energy or relying on renewable energy rather than on fossil fuels. However, this project is not assessing whether the two measures are going to be enough in bringing about the required GHG emissions reductions – since, as I have highlighted earlier, these goals are in line with economic growth – but only how *energy efficiency* and *renewables* are signified as mitigation and transition carriers.

The choice of *energy efficiency* and *renewables* in relation to climate mitigation is not surprising, as these signifiers embody a set of regulatory frameworks, policy tools, and relationships among policymakers and stakeholders that play a vital role in the 2030 Clean energy package. This is exemplified by the Energy Efficiency Directive and the Renewable Energy Directive, as stated by the Commissioner Miguel Arias Cañete, at “the EU vision for a clean, modern and competitive economy”:

We agreed on key elements to reduce GHG emissions namely energy efficiency, renewables governance of climate-energy policies (Miguel Arias Cañete, 10/07/2018).

Similarly, their prominent role is highlighted in the 2050 long-term decarbonization strategy:

Energy efficiency measures should play a central role in reaching net-zero greenhouse emissions by 2050 reducing energy consumption by as much as half compared to 2005. Energy efficiency, digitalisation and home automation, labelling and setting standards have effects that go far beyond the EU as appliances and electronics are imported into the EU or exported to foreign markets, making producers abroad use the EU standards. Energy efficiency will play a central role in decarbonising industrial processes but much of the reduced energy demand will occur in buildings, in both the residential and services sectors, which today are responsible for 40% of energy consumption (COM (2018) 773 final p. 8).

The same vital role seems to apply to renewables as well:

*Today the major part of the energy system is based on fossil fuels. All scenarios assessed imply that **by mid-century this will change radically with the large-scale electrification of the energy system driven by the deployment of renewables**, be it at the level of end-users or to produce carbon-free fuels and feedstock for the industry. **The clean energy transition would result in an energy system where primary energy supply would largely come from renewable energy sources**, thereby significantly improving security of supply and fostering domestic jobs [...] **The large-scale deployment of renewables will lead to the electrification of our economy and to a high degree of decentralisation** [...] Today, more than half of Europe's electricity supply is free from greenhouse gas emissions. **By 2050, more than 80% of electricity will be coming from renewable energy sources** (increasingly located offshore) (COM (2018) 773 final pp. 8-9).*

From these extracts we understand that energy efficiency and renewables are and will be the key tools for delivering emission reductions both in the mid-term and in the long-term. We should bear in mind that this project is not assessing whether the two measures are going to be enough in bringing about the required GHG emissions reductions,⁶⁹ but investigates how *energy efficiency* and *renewables* are signified as transition carriers in a context of (a given understanding of) climate change mitigation.

Having said that, to state that energy efficiency and renewables is “knowledge” that performs climate mitigation action is emblematic since, in principle, no one would argue against having equipment or devices that consume less energy or relying on renewable energy rather than on fossil fuels. Hence, energy efficiency appears a good neutral tool at the service of climate change mitigation, especially if considered in relation to the waste of “energy inefficiency”. Similarly, renewables as a regenerative and clean form of energy as opposed to the dirty and finite fossil fuels combustion are no doubt desirable. The point at this stage of the discussion is thus to understand what *energy efficiency* and *renewables* are as produced in the signification via the subject of the enunciation and reflect on the type of transition and change they deliver.

⁶⁹ According to the Commission these are estimated at only 60%, against the 80-95% required, as specified in the long-term strategy Communication: “The policies put in place today will have a continued impact after 2030 and will therefore already go a long way, with projected emissions reductions of around 60% by 2050. This is, however, not sufficient for the EU to contribute to the Paris Agreement's temperature goals” (COM (2018) 773 final p. 5).

5.4.2 *Energy efficiency qua lacking knowledge*

In this section, I am going to disrupt how *energy efficiency*, something intangible, is being signified by the subject of the enunciation. We will see that energy efficiency as a presupposition of sense mobilizes and keeps together a set of socio-political climate relationships between policymakers, stakeholders at large and citizens to deliver emissions reductions. At the same time, it takes different significations, which are not necessarily consistent with one another. This can be explained via a Lacanian approach in that such inconsistencies embody the surplus/loss of meaning in the subject's enunciation, emphasising the partiality of signification, while full meaning is deferred across the signifying chain.

First, behind the *energy efficiency* signifier lies a measurement. An EU Commission official from DG energy during an interview clarified that it would be more appropriate to speak of energy savings:

*The equation regulating energy efficiency is related to the **increased energy saving per unit of production**, it is the savings you obtain compared to a situation in which that measure/technology is absent”* (Interviewee 6a, 7/11/2018).

The EU official explains that this equation and the relative function drawn on a whiteboard does not tell us anything if, for example, the population grows. We can deduce then that if the population grows and we need more buildings, however efficient they might be, the energy demand grows, and this increment is not embedded in the *energy efficiency* equation.

Second, when energy efficiency occurs along with Renewables and Governance, it refers to the legislative acts named after it, as illustrated by the following statement from the MEP Sean Kelly (EPP) at the “EU vision for the clean modern and competitive economy”:

*In terms of moving to a low carbon system it is vital that we think long-term, imagine how the EU economy would look in 2050 and beyond [...]. First, from the outset it is important to remind ourselves that we have an obligation to meet the commitments under the Paris Agreement, and ensure that the required emission cuts are made. That is not something that is optional. Sustained and consistent action on climate change is a must. The only debate to be had is to consider how we do it not if we do it. **In the past few weeks, the Parliament and the Council reached an agreement on three key elements of the Clean***

Energy Package which was pushed so much so and so effectively by Commissioner Cañete. The Renewable Energy Directive, the Energy Efficiency Directive, and the Governance Regulation (Sean Kelly, 10/07/2018).

In this case, these legislative tools are claimed to be the means for achieving the targets of the 2030 Clean energy package. Thus, in the linguistic representation, the Energy Efficiency qua Directive becomes a metaphor for the concept of efficiency (energy saving).

Third, the International Energy Agency (IEA) was invited to speak at the stakeholder consultation the EU vision for the clean modern and competitive economy. During the Session “Cost efficient ways for achieving decarbonization” (10/07/2018), its representative, David Turk, Acting Director, Sustainability, Technology and Outlooks presented a slide about the existing gap between climate commitments (Paris Agreement and SDGs) and the current mitigation trends. This gap is filled in the graph with percentages of technologies as following: energy efficiency 44%, Renewables 36% Fuel switching 2% Nuclear 6% CCS 9% other 2%. The slide caption cites:

*A wide variety of technologies are necessary to meet goals, **with energy efficiency and renewables playing lead roles*** (David Turk, 10/07/2018).

In this case *energy efficiency* appears as an item among available technologies, along with CCS, nuclear (technology as well as an energy source) and renewables (technology and energy sources), for achieving GHGs reductions. Again, this is another metaphor, and it stands for technology in itself. In other words, it is not meant to encompass all technologies that should perform “efficiently”, such as the efficiency of modern solar panels compared to ten years ago, or the efficiency of nuclear reactors compared to renewable technologies.

Fourth, in the following extract, our interviewee comes up as a free association as to what *energy efficiency* does not represent:

*Something is right then, our policy is called energy efficiency , our goal is an absolute low level of energy consumption, so **if efficiency means how much how improved the quality of output you get for a given input of energy , then our policy is not enough, it's energy saving policy*** (Interviewee 8, 14/11/2018).

Fifth, if it is clear that *energy efficiency* means savings, it also means savings in economic terms, as the following DG Energy official explains:

Energy efficiency is not only about CO2 emissions, but also about savings. It makes sense in the economic sense (Interviewee 7, 13/11/2018).

It can be argued that when “energy efficiency” slides into “energy savings”, it is possible that the mentioned savings are not necessarily the needed energy savings, but economic savings. As a result, when *energy efficiency* is juxtaposed to cost-efficiency, speaking only of “efficiency” makes it unclear whether efficiency is an attribute of energy or of costs. Of course, if energy efficiency can be achieved in a cost-efficient manner, this is not necessarily a negative aspect, but the cost-efficient logic does not necessarily lead to reduction in energy volume as we will see in 5.5.2.

Finally, the possible understandings around *energy efficiency* can be further expanded. In the following extract, DG Energy’s Director general Dominique Ristori gave a speech at the EU vision for the clean modern and competitive economy. During the session “Cost-efficient ways for achieving a post-carbon European economy”, he stated:

Our vision is a vision of a multi-sectorial approach, beyond the energy sector, beyond the power sector. But examining also the situation of the industry sector, of the mobility and transport sector, of agriculture. This is fundamental in order to open the road regarding the decarbonisation of the whole economy (Dominique Ristori, 10/07/2018).

This case shows that at the EU level, probably as a result of them working in silos, they speak of the “energy sector” when they mean the power sector, i.e. electricity and electrification. As a result, industry, transport and buildings which in turn require “energy” from any source, to which the concept of “efficiency” qua savings should equally apply, constitute separate areas. This tends to generate overlapping or confusing juxtaposition in representations and categorization. For example, if transport (as a different sector from the energy sector, it is also formalised in two different DGs) is electrified, such as in the case of electric vehicles (EVs), it becomes unclear whether EVs are counted in the energy sector qua power sector, or in the transport sector.

From these examples we understand that *energy efficiency* as a presupposition of sense mobilizes and keeps together a set of socio-political climate relationships between policymakers, stakeholders and citizens around it to deliver emissions reductions. However, *energy efficiency* seems to have different forms and shapes depending on how it is unconsciously signified in the subject's enunciation. Hence, its signification is always partial, never achieved and deferred across the signifying chain. The same reasoning can be applied to renewables.

5.4.3 *Renewables* qua lacking knowledge

As opposed to the abstractness and intangibility of *energy efficiency*, *renewables* recall something that we can picture in our minds, whether in the form of wind, sun, water or the associated technology, such as turbines and solar panels. Thus, it has a more tangible nature than energy efficiency. However, as with the case of energy efficiency, *renewables* as well is spoken as a presupposition of sense that holds a set of socio-political climate relationships between policymakers, stakeholders and citizens, but it is spoken in different forms and shapes depending on how it is signified in the enunciation, and often inconsistently.

First, as with the case of energy efficiency, when the signifier *renewables* appears next to *energy efficiency* and *governance*, it is meant as a legislative act, that is the Renewable Energy Directive, as the case of Commissioner Cañete at “the EU vision for a clean, modern and competitive economy illustrates”:

We agreed on key elements to reduce GHG emissions namely energy efficiency, renewables governance of climate-energy policies (Miguel Arias Cañete, 10/07/2018).

As with the case of energy efficiency, the legislative act becomes a metaphor for renewable energy or associated technologies.

Second, as we saw in the case of *energy efficiency*, quantifying targets is what mainly drives signification. Accordingly, a DG Energy official explained that behind *renewables* lies a measurement. However, such target calculations consider the industrial capacity of Member states, rather than their natural capacity:

[...] This is when the target is set [...] there is a formula. At the moment I don't know what the formula takes into account. I think it takes into account the natural potential

as well, but I need to check it with my colleagues, we can do it afterwards (Interviewee 6, 07/11/2018).⁷⁰

Third, when speaking of *renewables*, this can mean both the type of energy source (i.e. solar, wind, etc.) or renewables technologies (i.e. solar PVs, wind turbines, etc.). Thus, speaking of renewables can either refer to their natural capacity of energy generation or their industrial capacity. Therefore, a distinction must be drawn, in that the energy source as natural potential is different from the technology that involves a product's life cycle, from the extraction of raw materials to the product's disposal and replacement. As a speaker from DG Energy explains (sic), some countries might have the industrial capacity but not the natural potential:

*Here, the Netherlands you can see a bit low⁷¹ which should be where they are so they really need to take measures [...]. Yes, but if you look at how low the renewables was, because France and other **countries with mountains have lots of hydro. This is not an option for the Netherlands [...]. First, the Netherlands are quite densely populated. They don't have hydro which is a traditional source of renewable energy. They just don't have the natural potential for that*** (Interviewee 6, 07/11/2018).

Fourth, from the perspective of the climate lead-DGs, that is DG Clima and to a good extent DG Energy, *renewables* appear to be signified in isolation from the ecosystem and biodiversity considerations. This is a perspective that is challenged by DG Environment, which highlights that renewables are not necessarily the ultimate solution to climate mitigation (see also 5.4):

*But this is perhaps our role, to say be careful that at present **the majority of renewable energy comes from biomass. If we carry on this way, with bioeconomy etc. we won't have biomass eventually and we'll destroy the ecosystem services and biodiversity. Thus, this is our problem. But there are also many synergies, I started with the negative aspect, as adaptation it is clear, water retention, flood protection, reduce the temperature when there are trees etc., the carbon sink in terms of mitigation, thus there are many synergies and we defend those because we know that biodiversity is in danger. If now climate***

⁷⁰ The co-worker says on an informal chat: mainly industrial capacity, infrastructure, GDP rather than natural potential (Interviewee 6a, 07/11/2018).

⁷¹ The speaker refers in this case not to the 2030 Clean Energy package but to the previous and still in force 20-20-20 targets that set a + 20% renewables target.

change is the greatest problem of humanity, the second is probably biodiversity loss (Interviewee 14, 29/11/2018).⁷²

Finally, and building on the previous argument, the silos' approach to work is far from being overcome. This aspect emerges in the words of an interviewee from DG Energy who takes for granted the transition to renewables, in isolation from other policy considerations:

It's true I mean I'm in a renewables bubble, so I don't know the discussion taking place within the coal lobby (Interviewee 6, 07/11/2018).

Similarly, another EU official from the same DG states:

The guys from renewables would like more but clash with other departments [...] That's what our renewables colleagues would like to have very high ambitions in terms of renewables. Then you might have for instance [...] In the renewables people want higher targets than we have in DG Grow. DG Ecofin says this is going to be very expensive, how are we going to finance that? This kind of technical questions from their perspective, so the renewables is not the best question because it's more the member states who would say whether it's feasible or not. So, there is a tendency within the Commission to agree on ambitious targets (Interviewee 7, 13/11/2018).

In conclusion, renewables as presupposition of sense holds together a set of socio-political climate relationships between policymakers, stakeholders at large and citizens, but it seems to take different forms depending on how they are signified in the enunciation with a signification that is never achieved and often inconsistent. These considerations lead us to reflect on the implications of both *energy efficiency* and *renewables* in this climate social bond and on the type of transition and change they can deliver.

5.4.4 *Energy efficiency and renewables as fantasy?*

The cases of energy efficiency and renewables that I have described above are, I would suggest, emblematic because as targets, modelling, legislative acts, and technologies they stand for knowledge as a quantifiable entity at work. I have illustrated that, individually, each signifier, i.e. *energy efficiency* or *renewables*, cannot confer the meaning that the entire chain offers, but *energy efficiency* and *renewables* are signified in different forms and

⁷² Translated from Italian (from a non -Italian native speaker).

shapes, as a legislative act, as an equation, as a technology, as economic savings, as a type of energy source at different times of enunciations, and all of these are not necessarily consistent with each other.

As outlined in the Methods chapter (4.5) disrupting and disorganising the spoken texts of *energy efficiency* and *renewables* does not aim to dig up any hidden meaning and establish an absolute truth of what they really mean. In fact, starting from the signifier and its centrality in the formation of subjectivity, I have illustrated that *energy efficiency* and *renewables* are all that is being spoken, including the attendant inconsistencies and gaps, which embody the surplus/loss of signification. In this leftover, which represents the gap between what the subject wants to say and what the subject says, lies that “lack” that sets desire in motion, which Lacan identified as *objet a*.⁷³ We can approximately compare this *object a* qua lack, to a never-achieved state of wholeness, such as a harmonious and safe planet, a growing prosperous environment, abundance of energy supply, efficient and infinite clean resources.⁷⁴

While this does not mean that all the EU representatives are necessarily convinced by or consciously aware of this discourse, they nevertheless appear to desire to believe it, as in the case of this interviewee from DG energy:

*I am very concerned about climate change and I am willing to... I mean, **I have views as a private person but I think that as a person I'm also very concerned about climate change and I'm interested in how we're going to get to avoid catastrophic global warming** by 2050 and the work that the Commission is doing, the long-term strategy, is interesting in that way. **I don't think the modelling that we're doing would be the end of the story because at least you start having some stories about how you can get to 1.5 degrees, stories in the sense of pieces of modelling which add up on some basis which describes worlds you know. And they have an x amount of electric cars, an x amount of CCS or whatever you have in them** and these are worlds that would get to 1.5 degrees. We've got better and better at modelling these things* (Interviewee 8, 14/11/2018).

⁷³ The intangible non-linguistic object-cause of desire, it does not belong to the Symbolic but the unsymbolisable Real.

⁷⁴ It is this constant quest for full representation, embodied by this object, that keeps discourse and subject together (Solomon, 2015, p. 66; 127). This is precisely what makes the discourse inherently inconsistent, never complete and always deferred to other signifiers.

As the extract indicates, the subject above is caught in a net of signifiers such as stories, modelling, a given number of electric cars, CCS, but a split is produced between personal considerations and the EU representative as whom he/she speaks. While the subject seems to be aware that this discourse is full of “holes”, points in which the field of representation breaks down, there is an attempt to disavow personal considerations as an EU representative and embrace and turn the traumatic points of the socio symbolic Other into a positive feature. This can be seen in the fact that the speaker desires to believe “some stories”, under the forms of commodified knowledge “pieces of modelling” or consumption objects “x amount of electric cars” (Interviewee 8, 14/11/2018).

The subjects observed and interviewed appear to be split between these powerful linguistic structures defining them, and their desire to reach the ultimate transition and full satisfaction that is always deferred. In this respect, in the pursuit of achieving climate mitigation as a form of full representation and ultimate enjoyment, the EU mobilises its knowledge apparatus. From the desiring position of having an effective climate policy these split, fraught subjectivities – as workers and consumers themselves – set “knowledge” to work with the available signifiers. These subjectivities are therefore the EU bureaucrats themselves as employees caught in their chain of consensus-seeking practices as well as stakeholders negotiating and lobbying their targets with policymakers. As a result, they establish the targets, they formulate impact assessment and cost-benefit analysis, they conduct official and unofficial consultations at EU level and international level, they engage with modelling activities, configure scenarios, release official policy documents such as the 2050 long-term strategy and fund technology innovation and research. The split subjectivities become also the new generation of graduates ready for the green job market, as well as all the new citizens/consumers put at the centre of this climate and energy transition who will participate and enact their smart consumption practices in a flexible decentralised smart energy market.

Within this framework, these subjectivities cling to the socio symbolic construct of fantasy of “having some stories” (Interviewee 8, 14/11/2018), meant as pieces of modelling, which give them some reassurance that climate change is being tackled. At the same time these subjectivities seem trapped in their closed circuit of commodified knowledge and objects, which in turn results in an endless (dis)satisfaction and illusory sense of plenitude, what we called *jouissance*. This manifests as a need to resort to more sophisticated modelling, greater bureaucratic organisation and coordination at all levels of climate governance as well

as a need to produce and consume more efficiently, i.e. through efficient buildings, effective heating and cooling systems, efficient cars, efficient industrial processes. It can be argued that the surplus-excess produced during signification is positively integrated into signification, with its rupture potential being nearly neutralised. For this reason, the EU's climate mitigation social bond can be regarded as a formalisation of Lacan's University discourse, the conceptual apparatus that describes a social bond in which knowledge is in command; and, at the same time, a formalisation of the Capitalist discourse, where surplus value functions as surplus *jouissance* (see 3.3.4). It is possible however to look for disruptive events in which this residue re-emerges in its force. In the next section, the Hysteric subject calls into question the foundation of discourse.

5.5 The postgrowth conference: breaking discourse boundaries?

5.5.1 Of knowledge and scientific enquiry

The discussion so far has helped to trace the EU social link (discourse) of climate mitigation action through an analysis of the signifier(s) and their unintended effects on the subjects observed and interviewed. I referred to the EU's climate action as a formalisation of Lacan's University and Capitalist discourses for the way in which they commodified the ever-present residue of signification. These arguments have been exemplified by the cases of *energy efficiency* and *renewables* as rationalised and reductionist knowledge within the signification space represented by climate mitigation as energy transition.

However, in the policy landscape observed, there are forces attempting to question the hegemonic discourse by introducing elements of disturbance in signification. In this respect, I attended the Postgrowth Conference (see Table 2, in Appendix), where climate change was one of the main topics of discussion. Leaving aside the struggle over the meaning of the signifier *postgrowth*, which has been criticised by some participants (for example the Degrowth activists), this event brought together researchers, activists and EU representatives from the Commission and the Parliament. Or, to use the words of the Molly Scott-Cato, MEP (Greens/EFA) “*a panel divided between those who bring ideas and people having to deal with the practicability of putting things into practice*” (Molly Scott, 18/09/2018). In this section I illustrate attempts by subjects-scientists to challenge the conversation by questioning what counts as evidence-based knowledge and by refusing the reductionist, rationalised and instrumental use of science expressed by mathematization qua modelling and technologization.

Within this framework, during a session called “Squaring the energy cycle”, chaired by the MEP Florent Marcellesi (Greens/EFA), Prof. Mario Giampietro, Research Professor at Universitat Autònoma de Barcelona (UAB) was invited to speak. On that occasion he sat at the same panel with Francesco Ferioli, DG Energy Policy Officer in the Economic Analysis Unit,⁷⁵ and challenged the concept of evidence-based knowledge in response to the question “Will we be able to satisfy our energy needs?”(sic):

What I would like to make clear is that we do not have enough information, a good understanding of the situation in order to be capable of answering this question. We can say we have a lot of trouble. But what is really important at the moment all the discussion done on how to tackle sustainability especially in the energy system are based on urban legends or wishful thinking that is very little reliable knowledge claim. And this is due to the fact, I think this is a systemic issue, that we want to apply reductionist science, the science done by Newton, to deal with complex systems. A complex system by definition is a system that cannot be measured by numbers in just one way. By the time you're measuring something you're missing something else. Unless we are capable of expanding a bit more the way we are handling the analysis of energy problems we are not sure that what we call evidence based is so based (Prof. Mario Giampietro, 18/09/2018).

The scientist posed an epistemological question regarding what constitutes evidence-based knowledge, rather than considering it de facto “evidence- based” as in the case of the EU stakeholder consultation (see 5.2). Thus, what seems to be at play in this case is the refusal of the reductionist and instrumental use of science expressed by modelling and technologization. Rather, this is contrasted with a view of a more authentic scientific enquiry that needs to think in complex systems to gain a comprehensive understanding of the real, with the difficulties and contradictions that this entails. In this regard, this scientist can be associated with Lacan’s hysteric (see 3.3). The Hysteric in this context challenges the knowledge and validity of the Master, and points to the difference between the two sciences, one that aims at pure rationalisation, and one that “tries to come to grips with the real, to maintain the difficulties posed by apparent logical and/or physical contradictions” (Fink, 1999, p.37). Accordingly, in the next couple of sections I address *energy efficiency* and *renewables* in this alternative framework of “hystericization”.

⁷⁵ He is in charge of the energy system modelling.

5.5.2 The disruptive force of *energy efficiency*

This section exposes the ruptures of discourse through *energy efficiency*. These can be detected in the disavowal of the rebound effect as a collateral of the climate social bond qua knowledge. Moreover, these ruptures emerge when issues of energy volumes are introduced and opposed to an idea of sufficiency, associated with a signifying chain of frugality. I conclude that these challenging subjects in the field refuse the evidence-based knowledge of the EU Commission in that *energy efficiency* does not necessarily mean a reduction in energy volume.

During the panel “Squaring the Energy Cycle”, Dr. Grégoire Wallenborn, from Université Libre de Bruxelles (ULB) zooms in on energy efficiency:

*What matters is the **volume of energy**. If we want to reduce **energy consumption**, we have to reduce growth [...]. Energy efficiency is often considered as the solution to all energy problems and I think that this is really misleading. I am trying to explain to you what is energy efficiency. Efficiency is the same as productivity. Efficiency is a ratio between out and input and when you consider energy efficiency you will consider the same activity with less input, less energy. But if the idea is to optimize, maximise efficiency you can also just with the same input have more output and more activities. So, if policies are aiming at improving energy efficiency, if efficiency is just an end in itself it leads to just more energy productivity. And that explains why you don't observe energy reduction while energy efficiency is rising. So, I really think the rebound effects are systemic, they are difficult for modelling because it is a complex system. if you ask the question: if you save energy somewhere where will it be used? You can imagine if you save energy efficiency that you'll have at some point in some activity but if you have infrastructure and markets which allow for its redistribution you won't have energy reduction. So, the rebounds are the reinterpretation that we can increase the number of activities with the same energy and it's really what we see today (Dr. Grégoire Wallenborn, 18/09/2018).*

Although it has been already highlighted that energy efficiency is a ratio between product output and energy input, at this event the fractures in discourse are explicitly exposed. For the first time we hear someone speaking of *volume* of energy. Let us consider again *energy efficiency* as an empty signifier. Improvements in efficiency create energy savings, a “surplus-energy” we might call it. If its meaning comes from the interplay of signifiers

having accumulation as their anchoring point, these savings are most likely to be re-invested and re-absorbed into the market and infrastructures with a negligible mitigating effect, to the point that we can establish an equivalence between the chain and its anchoring point. The surplus energy then becomes nothing but an economic surplus value in the strict sense. At present, *energy efficiency* virtually equates with productivity, which does not automatically translate into a decrease in energy volume and the reason for that is the so-called rebound effect. This is the “surplus-energy” gained with efficiency improvements that is re-invested. Let us imagine however, that the amount of energy saved through efficiency measures is actually saved and *efficiency* is attached and spoken to another chain of *volume*, *sufficiency*, of *planet boundaries*, then it can reduce energy volume, emissions cuts and more importantly other alternative significations are produced and new subjectivities other than the worker/consumers arise. Theoretically speaking, it is this new signification and new subject that can be associated with Lacan’s discourse of the Analyst (see 3.3) that would ideally bring about the systemic change and the new societal relations DG RTD interviewee expressed: “Now we know that we run for a completely systemic change, a new society a new system a new behaviour, new social relations (Interviewee 9, 16/11/2018)” (see 5.3.1).

Interestingly, the existence of the “rebound effect” as a side effect of energy efficiency measures has been repressed for some time, as the chair of the “Squaring the energy cycle” MEP Florent Marcellesi explained:

*[...] And then we have the rebound effect, I think it’s quite important that you mentioned that because it’s something that I said several times to the EU Commission rebound effect **and never had an answer about that**, because I was the shadow reporter for the greens on lots of energy issues, and **that was something that I don’t understand that we don’t include in the reflections** (Florent Marcellesi, 18/09/2018).*

In fact, during a session called “Energy sufficiency”⁷⁶ with Fulvia Raffaëlli – DG Grow, Head of Unit responsible for Clean Technologies and Products – and Philippe Tulkens – DG Research & Innovation, Energy Directorate, Deputy Head of Unit – Prof. Blake Alcott from Cambridge University expanded on the rebound effect. The Q&A session after presentations leaves a question (remained unanswered) to DG Grow:

⁷⁶ Note that the signifier is now *sufficiency* not *efficiency*.

*One question is to Fulvia, could you divert some research money to **a new rebound study**, a scoping study whatever it is called [...] and go back to the rebound question from in DG grow. You talked about new indicators or something and really go into this question of if efficiency changes then we increase growth I think we all agree on this. **I think that now the people in the IEA (International Energy Agency) say right now that Rebound is wonderful because it increases prosperity; and this is hilarious to me because it used to be denied and now it is big and the bigger it is the better and it's very good for GDP, good for affluence but that's not good for degrowing throughputs** (Prof. Blake Alcott, 19/09/2018).*

In the above extract, the speaker insinuated some resistance about the very existence of this *rebound effect*. In fact, during the course of my interviews, the rebound effect never came up spontaneously, unless explicitly mentioned (see full transcripts in Appendix). This seems to suggest that the rebound effect as a collateral of the climate social bond as knowledge was previously disavowed and when it re-emerged over and over again, the lack it embodied had been instead embraced and turned into something positive and exchangeable. As a result, this upholding of the rebound effect as a positive feature is confirmed by the words of the Commission, as this extract from DG energy suggests (after I mentioned the rebound effect):

*Of course, **there's a rebound effect, because we save people money** and you know our policy makes economic sense, they have the reasons **that the economic benefit is the rebound effect. The benefit of our policy is split between energy saving and economic growth. You know if you had no rebound effect you can have more energy savings but no more economic growth.** Put it another way, if we ban vacuum cleaner which would be crazy to buy, people who buy vacuum cleaners save more money in their pocket because **they would pay more on a vacuum cleaner but they spend less on electricity, they do something with that money and that's the rebound effect** (Interviewee 8, 14/11/2018).*

This seems to confirm what has been discussed in section 5.4.2 when it has been emphasised that the cost-efficient logic regarding energy efficiency does not necessarily lean towards reduction in energy volume: “if you had no rebound effect you can have more energy savings but no more economic growth” (Interviewee 8, 14/11/2018). So far the emphasis has been placed on an alternative understanding of *energy efficiency*, where we understand that it is the same as productivity and that the rebound effect is turned into a positive feature of the

social order, with a potentially negligible effect on our climate mitigation objectives. The next section addresses what happens with renewables.

5.5.3 The disruptive force of *renewables*

Renewables are taken for granted as a necessary part in the energy transition. However, as section 5.4.2 illustrated, *renewables* refer both to the natural energy source and the technology. In this section the hegemonic understanding of renewables is challenged by issues of source intermittency of the source, technicality of the grid, storage scaling and amount of electricity for the end-users. I argue that renewables as climate knowledge exposes the subjects to the discourse's fractures more than energy efficiency, insofar as it questions the very same mass transition to renewable energy. At the same time although an event like the Postgrowth Conference challenged the system of knowledge governing the current EU's climate mitigation action, every traumatic encounter with the lack with its liberating potential is resisted by the EU representatives who embody the hegemonic discourse. I show empirically that its relevance and potentially boundary breaking character is minimised and downplayed in the official policymaking environment.

At the session "Squaring the energy circle", Prof. Mario Giampietro (UAB) speaking next to DG energy's Feriali explains that the problem of renewable energy lies in its nature as an intermittent source, what we called natural capacity (5.4.3). This understanding is juxtaposed to that of renewable as a technology, the industrial capacity - the grid that should generate electricity (sic):⁷⁷

Electricity is a form of energy that is different from other energy. It is mechanical energy. It's moving in pipes, like water. If you have a grid you have something a baseload producing 400 units of water and users having 400. So, if the user uses more water, you have to out more water in the pipes otherwise the system stops working. So, you have what is called peakers, you have turbines that put the additional water. If the users stop using water, then you have to take out the peaker. Okay this is the way the grid works. So, what happens if we put intermittency? You put surprise supply, at a certain point you start putting water into the pipes and what happens? If you're not regulating the pipes break down. If you start putting intermittent in a grid you are generating a lot of trouble. So, if you're using a base loader nuclear plant or coal plant this is using almost

⁷⁷ He uses the jargon "intermittent", to explain that it might be available when not needed and vice versa and uses a water metaphor to explain the use of the grid.

all the time. All the electricity that is produced is used. Peaker, the same. If you use the Peaker when it's needed all the electricity produced is used. If you're using an intermittent first of all you're using the intermittent very little when there's wind. Especially solar PV in Germany is a very bad idea you use about 10% probably. What happens is that not only you're producing less energy per unit of capital but also maybe when you're producing energy maybe it's not used because they're producing it not necessarily when it's needed and you're not producing it when it's needed [...]. So, if we don't have a way of having a storage per se the idea of starting investing billions, hundreds of billions is not particularly good (Prof. Mario Giampietro, 18/09/2018)⁷⁸.

Thus, we understand that the transition to renewables is less smooth than it seems. In the absence of storage, issues arise for three main reasons. First, they arise for technical reasons due to how grids work. Second, they emerge for the intermittent nature of the energy source. Finally, issues arise in terms of the actual electricity amount available to the end-user. Even if we have storage, such as batteries, a scaling issue emerges (sic):

*[...] If Tokyo remains one day without intermittent [...] you will require 600 gigawatt/hour [...] and if the largest battery station they are expected in 2021 will be 400 megawatts [...], we 're talking about that we will need 1500 stations, the largest in the world, just to have a back-up for Tokyo for one day. And if you look at the batteries of the cars and still for 2 million cars, we're already in the order of 160 gigawatt/hour, [...] if you put the cars in Europe that would be an outrageous number of batteries. Let alone the batteries required for backing up the grid [...]. What is the problem? That maybe you have to renew it every 3-4 years or 5 years. Can you imagine this type of things? **Hundreds of thousands of things to be renewed every 3-4 years how much will it cost? Do we have lithium? What are the environmental impacts of recycling all these things? Nobody knows.** I'm not saying it's not possible or that we should not do it. But what I'm saying is that this something that will not happen in the next 10 years, if you're listening in 2030 -40 everything is solved (Prof. Mario Giampietro, 18/09/2018).*

This suggests that there is a huge problem of scaling in terms of renewable technology, battery storage and life cycle, in that they follow a material flow as any other commodity, from its extraction to its disposal or recycling. In this respect, building renewable

⁷⁸ The context was explaining the structural flaws in the German energy transition plan called Energiewende.

technologies and infrastructures might be good for the modernisation of industry and the economy but not for climate objectives, as the same speaker /scientist observes:

*Can you go back to the slide number 4 of the quick decarbonisation (referring to the presentation of DG energy Ferioli, Ed.). This to me is **fascinating I don't know how the models are done** but basically we are saying that in 20 years we will have 40 times more power capacity in terms of ...**who is building all these things? Because if we are doing this using fossil energy, we will have an increase in the emissions not a decrease.** So, I don't know how the model is done. But if we want to have some projects about how much energy will be required to be all the power capacity and consuming capacity that will be required for this substitution, I'm not sure how reliable this is. **This is why I always say it's better to use story telling rather than models, because models are tricky** (Prof. Mario Giampietro, 18/09/2018)*

If these renewable technologies are built by burning fossil fuels, then the model reveals its limits in the real world.⁷⁹ Finally, the problem with biofuels is raised by the scientist-hysteric subject (sic):

*Biofuels, this is my favourite: **fossil energy was about using oil to save labour and land. Biofuels is about using labour and land to save fossil energy.** That is, I mean we missed what happened in this planet over the last 200 years [...]. You can see the on the right you see the density of supply. Please note that this is a logarithmic scale, so it's 10 times more. **We can feed cities and all the industrial use because the density at which we are producing energy with fossil energy is in order of magnitude higher. With biomass is much lower. If we we're using biofuel it's even lower** because we're spending energy to convert biomass in liquid fuels (Prof. Mario Giampietro, 18/09/2018).*

The fractures of the discourse are exposed and challenged explicitly in the case of renewables as well as in the case of energy efficiency. In a chain of signification in which the total volume of energy as anchoring point, we hear someone addressing the problem of variability (or intermittency) and the technicality (the materiality of the grids) that make the transition less smooth than the EU policies make it seem. Perhaps, *renewables* as climate knowledge expose the subjects to the traumatic points of the discourse even more explicitly than energy efficiency. More precisely, in the case of energy efficiency the negative can be disavowed

⁷⁹ The DG Energy representative never answered the question about how the model is built.

and integrated successfully into signification via the appraisal of the rebound effect, which is good for economic growth. However, *renewables* expose discourse to all its limits that question the very same mass transition to renewable energy in terms of infrastructure, variability, storage scaling, final amount of electricity usage.

Although an event like the Postgrowth Conference had a clear intent to challenge the system of knowledge governing the current EU's climate mitigation action, it should not mislead us in drawing the wrong conclusions. In this current phase of policymaking, every traumatic encounter with the lack as transformative force is resisted. This event was in fact not an official EU event but organised at EU premises by few political groups within Parliament. In fact, its salience and potentially boundary breaking character is minimised and downplayed in the official climate policymaking environment. For example, I have shown the postgrowth leaflet to a speaker in DG Clima:

***I don't know** what the event was* (Interviewee 4, 12/10/2018).

After looking at the flyer of the event:

*So, 5 political groups, the unions, NGOs, it's unions, NGOs and political parties **all discussing basically how to grow**. I mean, I have not been there but looking at it **this is a lot about what is the definition of sustainable growth*** (Interviewee 4, 12/10/2018).

As we can see, an ambiguous floating signifier like *postgrowth* is immediately associated and anchored to "how to grow" and the "sustainable growth" representation.

During another interview with DG energy, I asked why the Commission has decided to take part in something like a postgrowth conference. The speaker seems first open to hearing the "postgrowth" perspective which he/she finds intellectually interesting. The speaker also justifies the Commission's participation on the grounds that the invitation came from a MEP, so the Commission would normally accept to participate purely as part of their representative role:

***I find it intellectually interesting**, but if you set that aside whether has to go a speaker or something we normally say yes. You know, at least our presumption is that yes and if a MEP then our presumption is to say yes **immediately because that's part of our role** [...].*

*I mean it's just that the postgrowth movement is **not something I really interacted with**.*
(Interviewee 8, 14/11/2018).

It can be suggested therefore that the effects of a subject bringing overtly disruptive elements in the scene within a given social bond are conditioned by the law of the dominant existing social bond and therefore resisted. This confirms the argument raised by Fink who claims that the hysteric can function within the University discourse, but what changes is his or her efficacy. This occurs because the possible effects, shortcomings included, are those allowed by and pertaining to that specific discourse, as that discourse facilitates some things while hindering others (Fink, 1999, p. 30).

In conclusion, this exercise therefore is not a critique of *energy efficiency* or *renewables* (as a Directive, as an equation, as a technology) in itself. The critique is addressed at how energy efficiency and renewables are spoken by its representatives in relation to delivering an ambitious climate change mitigation strategy. What I intended to show with this chapter is that we cannot think of energy efficiency or renewables as a presupposition of sense that automatically delivers the desired and required reductions. For the moment, in relation to the period “in between strategies”, we are facing a case of signifiers that are well anchored to a powerful and dominant signifier from which they struggle to detach, that is to say, a chain of allegedly neutral and rational and valorised knowledge. From this social bond, deeply fraught inconsistent subjectivities emerge in their pursuit of an effective climate action and desired “system change”. As a result, the energy transition qua climate action appears to be an illusionary change supported by the constant commodification and thus integration into signification of its traumatic points. This can be illustrated in the case of the recent enthusiasm around the previously denied rebound effect and change. Besides, this illusionary change is also supported by socio-symbolic constructions, that Lacan called fantasies, of efficient products and renewable energy that promise to cover the impossibility of discourse. This ultimately hinders the rupture potential of discourse and the possibility to bring real change. This transition looks therefore more like a redistribution of tasks within the same old social bond, perhaps under the authority of a more efficient or more renewable Master.

For energy efficiency and renewables to be a real discourse of transition and change, we need to closely look at how signification unfolds and if it is attached to a chain of for example, total energy volume, sufficiency, planetary boundaries. However, current efforts of “hystericizing” are not succeeding in transforming the discourse and are instead still

resisted and repressed. It must be acknowledged however that at the moment it is impossible to predict if a continuous aimed at questioning and challenging the dominant social link, perpetrated for example, by a more progressive stance of the new Commission, the new Parliament or even new forms of radical activism will eventually manage to cause an irreversible and painful rupture in the EU's climate mitigation discourse.

If this chapter has been concerned with signifiers that have a stabilised meaning in EU policymaking, what happens when a new signifier appears in the domain of EU's climate action? The next chapter will present the case of the circular economy and will try to adopt the opposite perspective. Namely, if *energy efficiency* and *renewables* appear to have an apparent fixity of meaning that I have tried to open up and disrupt, the next chapter will investigate if and how a still-floating signifier with a rupture potential, *circular economy*, is acquiring relative stability in its meaning in a given social bond.

5.6 Conclusion

This chapter has investigated the EU's climate mitigation action in the period "in between strategies". The aim of the chapter was to challenge a seemingly closed discourse in order to reflect on the nature of the current EU's climate transition, and ideally on any possibility of disruption and bringing about change. Starting from an analysis of the signifying chain and its unintended effects on the subjects observed and interviewed, the current EU's climate action has been placed in a context of knowledge that, despite being welcomed as evidence-based, tends towards rationalisation and valorisation. Indeed, this knowledge seems to be put to work in function of a command of competitiveness, accumulation and ultimately growth, which is what constitutes the real but disavowed authority of the social order.

Considering this, I illustrated how *climate change* and *mitigation* are signified within such a pervasive symbolic network and constituted mainly along the semantic gravitation centre of *energy transition*. This closes the climate change's signification space by neglecting wider considerations about the planet, the ecosystem and biodiversity. Within this knowledge network and given the key role these policy tools play within both EU strategies I zoomed in on the case of *energy efficiency* and *renewables* as the quintessence of this mobilised knowledge as legislative acts, technologies, targets, modelling within the climate and energy nexus. The aim of this exercise was to show how the Lacanian subject as an inconsistent identity emerges in the enunciation. This has been illustrated mainly by juxtaposing speech extracts that would emphasise how such inconsistencies are spontaneously produced in

speech by EU representatives. Moreover, to highlight the nonsensical character of the signifier, some challenging elements have been introduced during interviews; extracts from those events that would call into question the EU knowledge apparatus have been reported.

I concluded that the EU's climate action is currently a formalisation of Lacan's University discourse, for its emphasis on knowledge in command, and at the same time a formalisation of its complementary Capitalist discourse, the discourse of *jouissance* as commodified enjoyment. More to the point, the key to understanding how discourse and subject are held together and presupposed lies in how the "lack" (emerging as gaps, inconsistencies, blind spots) is handled in the discourse. In the pursuit of achieving the goal of climate mitigation, these split subjectivities, as workers-consumers set "knowledge" to work with the signifiers available to them. But this ever-partial signification, rather than emerging as a disruptive force able to produce new significations, has been positively integrated into signification by being turned into commodified knowledge and into consumption objects. As a result, these subjectivities qua representatives of the discourse set the targets, draft impact assessments, exchange knowledge, build models, produce official policy documents, fund technology innovation and research, and enact smart efficient or renewable consumption. This valorisation of the traumatic points of discourse as a positive feature has often been accompanied by a paradoxical sense of dis(satisfaction), that is to say *jouissance*, as to its efficacy towards delivering climate change mitigation.

Hence, *energy efficiency* or *renewables* as a presupposition of sense do not automatically deliver the desired, let alone required, reduction in GHG emissions. For the moment, within the 2030 Clean Energy Package and the 2050 Long-term Decarbonisation strategy, we are facing a case of two signifiers that are well anchored by a very powerful dominant signifier from which they struggle to detach and are not able to shake the foundations of discourse. In fact, every encounter with the "lack", associated with a few powerless hysterics in the field, is resisted and their efficacy ultimately hindered by the limits of the University/Capitalist social bond. As a result, the acclaimed energy transition qua climate action appears to be a fictitious change under the semblance of an efficient and perhaps renewable Master, supported by the fantasies of efficient products and renewable energy that promise to cover the impossibility of the discourse.

Chapter 6. Climate change mitigation action: the case of the non-circular economy

6.1 Introduction

This chapter continues the analysis of how the current climate change mitigation policy is thought of and constitutes itself through the subjects of the enunciation. The aim of this exercise is to reflect on the nature of the current EU's climate transition, detect any fractures in discourse and reflect on any potential transformation of the social bond. In this chapter, my focus on the signifying chain and its unintended effects on the subjects observed and interviewed investigates how a relatively new signifier in the EU's climate action, i.e. *circular economy*, acquires relative meaning stability within discourse. As a result, the chapter is structured as follows.

First, I provide insight into the potentially disruptive metaphor of “circularity” and how it is associated to an alternative chain consisting of metabolism, regenerative character, complexity and interrelation. More specifically, I point to the disruptive force of a signifier that could expand the signification of a rationalised and reductionist knowledge to combat climate change towards a holistic approach that takes into account the planet interdependencies. At the same time, I illustrate how an immediate reference to “decoupling”,⁸⁰ that is, the idea of separating growth from environmental pressure, results in a breakdown of this alternative representation. For this purpose, I re-trace the journey of the circular economy within the EU and its recent linkage to climate action from the point of view of signification. *Circular economy* is in principle recognised within the EU as an important part of an effective climate action. In this context, I argue that a relevant aspect of the signification concerning *circular economy* is that it ideally leads us to consider the bigger picture of all material and organic flows and how these interact with the surrounding biophysical reality. Hence, *circular economy* could imply greater symbiosis and coordination of all the EU policy DGs, a common pattern across policy areas, and would run against the reductionist and bureaucratised approach to knowledge production that has been so far distinctive of the Commission. However, at first *circular economy* was perceived as an element that would point to reorganising our socio-economic relations and to the way

⁸⁰ This concept has gained importance in the UNSDGs agenda and now it is a common term accepted in the sustainable development semantic field. SDG 12 **Ensure sustainable consumption and production patterns** cites “One of the greatest global challenges is to integrate environmental sustainability with economic growth and welfare by decoupling environmental degradation from economic growth and doing more with less. Resource decoupling and impact decoupling are needed to promote sustainable consumption and production patterns and to make the transition towards a greener and more socially inclusive global economy” (UN environment 2020).

knowledge is produced and exchanged. For this reason, it was strongly resisted to the point that the project was withdrawn.

I illustrate that its reintroduction within discourse, that I defined as the “acceptance” phase, has entailed a loss of the disruptive and potentially liberating aspect initially carried “circularity”, which might have produced a real change. Indeed, *circular economy* within the EU today would seem to be co-opted in what Lacan referred to as the University discourse and the Capitalist discourse. This is a social bond regulated by an allegedly neutral knowledge that works in function of a command of competitiveness, accumulation and growth, where ruptures are endlessly commodified. At the same time, a seemingly closed discourse is in fact shown to be open due to the presence of the subject of the enunciation driven by the desire to reach full linguistic representation, that is, in this case to achieve an ideal and effective climate action⁸¹. Thus, it is possible to investigate what the reintroduction of *circular economy* within the EU has entailed and observe the effects of *circular economy* on the subjects in order to detect if any fractures are produced and how these are handled in discourse. I argue that *circular economy* seems to be still unconsciously spoken in the silos defining the EU as a regulatory, technical, and legal subjectivity. This consequently poses a serious discursive limit to the picturing of the circle. Even when it is possible to depict a circle via the core issue of ecodesign, this does not automatically describe a pattern of circularity that considers complexity, metabolism, regenerative capacity, or planet boundaries at large, as strong signifiers. Rather, it resembles a vicious circle whose pace and size must be able to cover a growing demand for goods. Hence, rather than being spoken as a new centre around which our socioeconomic relationships have to be re-thought, *circular economy* looks like another policy carriage of the EU as regulatory train, supported by the illusion of standardising practices, increased recycling, ecodesign qua energy efficiency, new business models. This illusion promises to cover the impossibility of discourse and gives us a semblance of circularity.

In the last part of the chapter, I shall focus on an important element of counter-resistance within the University-Capitalist social link. This can be attributed to proactive stakeholders such as the EESC, as well as to the unofficial policy landscape such as the Postgrowth conference, whose efficacy however can be strongly hindered by the law of the dominant University/Capitalist social bond. These subjects seem to keep that original disruptive

⁸¹ The subject produced by language as surplus of sense.

element of “circularity” alive by expanding the circular economy’s signification beyond simple recycling, energy efficiency, or the ever-expanding geographical boundaries.

6.2 The disruptive potential of circularity

The discussion in this chapter begins by providing insight into the potentially disruptive force that the metaphor of circularity brings. Circularity seems to be associated to a potentially alternative chain of “metabolism”, “regenerative character”, “system complexity” and “flux interrelation”. This alternative chain of signification seems to anchor *circular economy* to a linguistic network that considers all the interdependencies within the planet, as opposed to a simplified, rationalised, reductionist knowledge that has been characterising so far the climate mitigation action (see Chapter 5).⁸² However, I will illustrate how an immediate reference to “decoupling”, that is to say, the possibility to separate economic growth from environmental pressure and resource extraction, results in breakdown of this potentially alternative representation. As a result, we are facing the case of a signifier at a signification crossroad. This means that on the one hand *circular economy* carries a disruptive force that attempts to produce an alternative signification with a wider ecological anchoring point. On the other hand, it is dragged into the signification machine driven by the command of competitiveness, accumulation and ultimate growth, that regulates the University discourse of an allegedly neutral knowledge and the Capitalist discourse of (false) enjoyment.

The term *circular economy* has not been coined by the EU. Rather, it is a concept for which some proactive stakeholders such as the European Economic and Social Committee (EESC) or the European Environmental Bureau (EEB) lobbied through progressive DGs such as DG Environment (see 6.4). This aspect is relevant if we are to understand how this signifier is being pushed and pulled across different signifying networks by a multitude of different subjectivities, and also how it is being “imported” and spoken within the EU. When speaking of the circular economy today, stakeholders tend to refer to the version provided by the Ellen MacArthur Foundation. For example, an EESC speaker, one of the stakeholders actively promoting the circular economy (see Table 2, in Appendix), referred to it in the following way:

⁸² In the theoretical section and in Chapter 4, I referred to the challenging of the status quo knowledge, as well as to its anchor of representation.

*I think that, ok, the philosophy of the circular economy that I adhere to is the same as the one presented, **mostly the one presented by the Ellen MacArthur Foundation**. Even though I don't agree with them on every approach but the philosophy of circular economy, **which is very close to the original**, to Walter Stahel. And that is in simple terms that there's two, ok there's many, many circles. But there's two main circles (Interviewee 5, 30/10/2018).*

The above extract informs us about the existence of something that we might refer to as the “original philosophy” of the circular economy and that there is some convergence in terms of adhering to the version presented by the Ellen MacArthur Foundation. Therefore, at this preliminary stage of discussion, it is worth investigating what the Ellen MacArthur Foundation says about the circular economy. On their website, we learn that the “circle” or “cycle” metaphor is an ancient one, but this idea of circularity experienced a revival in the post war period in the attempt to grasp the complexity and interrelation of some systems:

*The notion of circularity has **deep historical and philosophical origins**. The idea of feedback, of cycles in real-world systems, is ancient and has echoes in various schools of philosophy. It enjoyed a revival in industrialised countries after World War II when the advent of computer-based studies of **non-linear systems unambiguously revealed the complex, interrelated, and therefore unpredictable nature** of the world we live in – **more akin to a metabolism than a machine** (Ellen MacArthur Foundation, 2019).*

Thus, the “circle” metaphor reminds us of the complex interrelations that keep systems together, for example our ecosystem. More specifically, this idea of “circularity” seems to carry an innovative force from the point of view of signification insofar as it is attached to a chain of “complexity,” “interrelation,” “metabolism”. This chain seems to be antithetical to the “line” metaphor that has characterised our way of exploiting natural resources and organising our economy, namely along the line produce-use-dispose, with consequent GHGs emissions related to those processes. Furthermore, by opposing “metabolism” and “machine”, it might be argued that an idea of circularity stands in opposition to those ways of knowing that fail to grasp this system's complexity and that have been previously referred to as rational and reductionist, often reinforced by a rigid bureaucratic organisation of work (see Chapter 5). A further component of this metonymy of circularity is its regenerative character:

*[...] regenerative by design and aims to keep products, components, and materials at their highest utility and value at all times, distinguishing between **technical** and **biological** cycles* (Ellen MacArthur Foundation, 2019).

The regenerative component of a circular economy aims to save natural resources and raw materials and re-use what is already in circulation. It is thus associated with resource scarcity. As the extract explains, we must first distinguish between two main circles: the natural biological organic flows such as food, and the material flow, that is all the non-natural manufactured products that populate our everyday life and that are the main focus of this chapter.

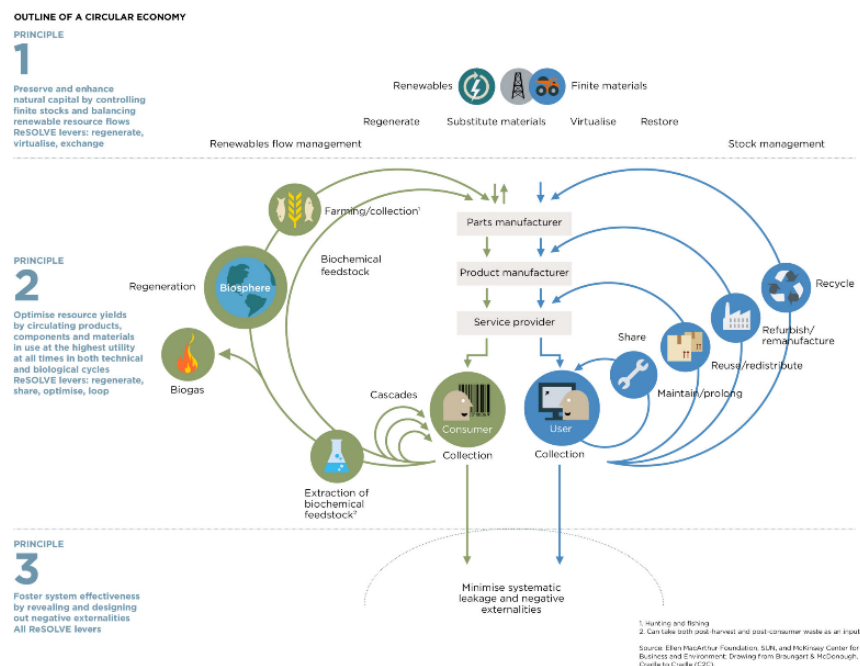


Figure 5: The 2 circles (The Ellen MacArthur Foundation, 2019)

Moreover, the EESC speaker below explains how this signifier floats across the linguistic network by introducing a new series of concepts such as ecodesign, remanufacturing, repairing, planned obsolescence,⁸³ recycling, service-based model which will return at a later stage in the analysis (see 6.5):

*So, the concept of circular economy and how to address that clearly is that first of all there are 2 big circles. One is to discuss **material flows**, hard raw materials and how they move within an economy. That's where **ecodesigning products comes in**, where you have a **remanufacturing, repair, and the planned obsolescence is eliminated** and products*

⁸³ Products that are designed to stop working more rapidly, and usually shortly after the expiry of their guarantee (EESC, 2019)

*can be reused or can be a modular. So, there are components, parts that can be reused. That's the material flow basically and that's where recycling, the service-based model as new business model, as new ownership model, fits into that. But then there is **the biological or ecological flow** of materials which is organic natural materials* (Interviewee 5, 30/10/2018).

As explained, this speaker introduces some new relevant signifiers in the chain of signification that will return later in the analysis. At this stage, it is enough to highlight how the notion of circular economy can be explained by reference to “ecodesign”, which introduces concepts such as “repairing”, “remanufacturing”, “eliminating planned obsolescence”. These in turn slide in a chain of “recycling”, and of “service-based business models” which translates the abstract understanding of circular economy into practice (see 6.5).

Although the speaker above mentioned that there is a version “which is very close to the original, to Walter Stahel” (Interviewee 5, 30/10/2018), the concept of the circular economy is not as straightforward as it seems for two main reasons. First, because today the notion of circular economy appears to be spread across different schools of thought and cannot be traced back to one scholar only. Thus, rather than speaking of a singular circular economy, we can speak of different “circular economies” tied together by a metaphor of loops and circularity.⁸⁴ Second, the binary distinction of the material versus the organic is not as clear-cut, which contributes to blurring the conversation as our EESC actor explains (sic):

*And I don't mean bioplastics by the way, because bioplastics, well because organic flow of material is usually food or trees or materials that are made of 100% naturally produced and they go back in through biodegradation back into the ecological and natural system. Bioplastics are drawn, in some cases, **from natural biological world and manipulated** to come to the material flows, and because they are no longer biodegradable in the technical sense of the word, they essentially biodegrade down to their constituent parts. **But sometimes they're manipulated so much that it takes specific conditions for them to biodegrade.** A lot of the compostable cups, they end up in the landfill because they can't*

⁸⁴ These are the performance economy (functional service economy) by Walter Stahel; the cradle to cradle design philosophy by William McDonough and Michael Braungart; the biomimicry by Janine Benyus; the industrial ecology by Reid Lifset and Thomas Gradael; the Natural capitalism by Amory and Hunter Ovens and Paul Hawken; finally the blue economy systems approach by Gunter Pauli. It is beyond the purposes of this work, which is based on EU's climate change mitigation, to go into the depth of each single school of thought. This fragmented categorisation is already contested in literature (see Korhonen, Honkasalo and Seppälä, 2018).

*actually go in a composter. They don't break down, so even though they're biological materials, or bioplastics or biopackaging. **They leave the biological circle and they become part of the material circle.** And you need to manage with that in mind. **And I think the concept gets blurred** in the conversation. But also, this is one of the comments of the overall philosophy of it if that makes sense (Interviewee 5, 30/10/2018).*

From the above extract, we learn that the material versus organic distinction is not as neat as it seems in that we can have biological materials that are manipulated and enter the material circle, such as bioplastics. This is what, in the speaker's view, contributes to blurring the conversation of the overall philosophy, but as we will see in the next section this is not the only unclear aspect. What it is important to highlight at this stage is the potential alternative signification that a metaphor of circularity can bring in terms of metabolism, regeneration and complexity, as opposed to a linearization, reductionist view of the organic and material fluxes within an economy. At the same time, in the next section we will see how a challenging element in the conversation results in a potential breakdown of representation of this "circularity" metaphor. In fact, the reference that the Ellen MacArthur Foundation makes to "decoupling", casts doubt over the direction that the circular economy is taking and how it is being promoted:

*This new economic model seeks to ultimately **decouple global economic development from finite resource consumption** (Ellen MacArthur Foundation, 2019).*

Whereas *circular economy* was being attached to a chain of "complexity", "interrelation", "metabolism", this extract interrupts a potentially alternative signification and results in a potential breakdown of representation. It seems that *circular economy* is sliding back into the signification of "decoupling", that is the idea of separating economic growth from environmental degradation. As a result, it seems that we are facing an interesting case. On the one hand *circular economy* carries a potentially disruptive force that attempts to produce an alternative signification with a wider ecological anchoring point. On the other hand, it is dragged in the signification machine that regulates the University discourse of knowledge and the Capitalist discourse of enjoyment. As we will see in the next section, today *circular economy* is recognised within the EU as an important part of an effective climate action, which perhaps indicates some desire of achieving the required emissions reductions.

6.3 The desirable role of the circular economy

The previous section has highlighted the potentially alternative signification that “circularity” might bring. At the same time, I also highlighted how an immediate reference to decoupling results in a breakdown of this alternative signification. Today *circular economy* is in principle recognised within the EU as an important part of an effective climate action, which perhaps indicates some desire of curbing GHGs emissions. Furthermore, I argue that the circular economy signification ideally forces to bear in mind the bigger picture of all material and organic flows rather than work on small narrow signification spaces, as emphasised in the case of the climate-energy nexus (see Chapter 5).

In this respect, the necessary and desirable role of the circular economy is recognized by DG Clima, which is not a lead DG in the matter of circular economy:

*The response is simple, if you want to solve the climate problem **there is no way that you can go without the circular economy** because we will have 30% more population by 2050 (Interviewee 10, 21/11/2018).*

Similarly, the following DG Grow speaker explains the “common-sensical” and “evidence-based” character of the circular economy:

*Well I’m aware of the principle of the circular economy [...], we have colleagues here working full time on the principles of circular economy. **It’s one of these policies that seems common sense, it’s like evidence-based policy making. I mean since when policymaking hasn’t been evidence based.** It’s providing an aim for something which has always been there as a reflection on how you make things. Why would you set out to make something which couldn’t be recycled or reusable, in fact you may not have a choice over there, it’s not a deliberate policy end (Interviewee 11, 22/11/2018).*

In these extracts, *circular economy* is spoken as a necessary component of climate action: “There is no way you can go without the circular economy” (Interviewee 10, 21/11/2018). Its decisive role is almost taken for granted “one of these policies that seems common sense” (Interviewee 11, 22/11/2018). It seems that at least on the side of the EU representatives there is a desire to come up with an effective climate action and give space to those contributions that help pursuing this objective. Furthermore, as anticipated, *circular economy* ideally forces to bear in mind the bigger picture of material and organic flows rather

than work on small narrow signification spaces, which are formalised for example in the Commission's division of work. Hence, it can be beneficial to expand the signification horizons of climate action as energy transition detected (see Chapter 5), in that it ideally requires a consideration of flows and how these interact with the surrounding biophysical environment. In this regard, *circular economy* could imply greater symbiosis and coordination of all EU policy DGs, a common pattern across policy areas, and would run against their reductionist and bureaucratised approach to knowledge production that has been so far distinctive of the Commission.

The willingness to overcome the “silos” approach emerged at two events I participated in, which seem to suggest an intention to work with a more integrated approach. The first event was called “Tackling Planned obsolescence” (30/11/2018) (see Table 2, in Appendix).⁸⁵ On this occasion, it was reproached that despite the almost unanimous adoption of the EESC Opinion (2013) and the European Parliament resolution of 2017, the Commission has been slow to respond and lacked a holistic approach, or rather lacked a willingness to adopt a transversal approach for all political sectors. It has been reported that the First Vice-President of the EU Commission Frans Timmermans and Vice President Jyrki Katainen have expressed their commitment to deal with the planned obsolescence in reaction to the European Parliament rapport showing some progress, but this progress has been very slow. However, Marie Paule Benassi from DG Just, Acting Director ⁸⁶ shortly claimed that the current Commission was no longer working in silos:

Since the Juncker Commission we have stopped to think in silos, with all the services of the Commission adopting a coordinated approach (Marie Paule Benassi, 30/11/2018).

Similarly, during another event called “Boosting circularity in SMEs” ⁸⁷ (6-7/12/2018, see Table 2 in Appendix) the keynote speech of the Commission represented by Peter Czaga, Policy officer from DG Environment, pointed to the need to push the circular economy to all policy areas:

The need to streamline circularity, not only in environmental policy but in all other policy areas, enterprise policy, industrial policy, finance, education and so forth.

⁸⁵ EESC event to address planned obsolescence to protect consumers and transition to a circular economy.

⁸⁶ Directorate-General for Justice and Consumers.

⁸⁷ Small and Medium Enterprises.

Katainen and Timmermans said we need to streamline the circular economy in all policy areas (Peter Czaga, 06/12/2018).

As a result, the role of the circular economy is advocated as desirable, evidence-based and commonsensical and would imply greater integration and symbiosis between DGs within the Commission.

In this respect it is worth investigating how *circular economy* knowledge is put to work, while observing the effects of this signifier on the people interviewed and observed. Although at present the role of the circular economy is advocated as a necessary component of an effective climate action, this has not always been the case. In fact, *circular economy* within the EU can be said to have been perceived at the very beginning as a disruptive element in representation. This would seem to be confirmed by the simple observation that the first phase that characterised the entry of the circular economy within the policymaking process of the EU in general is that of “resistance”.

6.4 Circular economy as the hystericizing element in discourse: resistance

As argued in the previous section, despite being recognized as an important part of the EU’s climate action and EU policymaking in general, *circular economy* within the EU can be said to have been perceived at first as a destabilising element in representation, to the point that it was resisted. As I will argue, this element of disturbance points first to the fact that an idea of “circularity” in opposition to the “line” might have been ostracised by business actors because it forces us to re-think the economy as a cycle. This in turn can potentially introduce an idea of limit, pace, size rather than business at all costs at any time. Second, this element points to the way “knowledge” is produced and exchanged within the EU.

Interviews in the field revealed that introducing *circular economy* into the EU’s decision-making procedure has not been a smooth process. Rather, it has been met with evident resistance which resulted in the withdrawal of the project. In this respect, during an interview with DG environment that took place shortly after the publication of the long-term strategy, *circular economy* comes up as a free association in the conversation on citizens and their concerns over climate change, environment degradation, air pollution, and planet degradation in the wider sense. More specifically, the EU representative spontaneously spoke about the element of resistance that surrounded the circular economy throughout its journey within the EU:

What is the political and bureaucratic history of the circular economy? There was a Communication that was presented shortly before the Juncker Commission started its term. And one of the first things that this Commission has done is to withdraw the circular economy. But it was rumoured that there was a big pressure from European companies, big companies. But how can you withdraw this if for us this is a priority? We are already doing the circular economy, we're talking about energy transition, but there is also a circular economy transition that is also present, this is very clear. Brussels is recycling I got the figures 90% of paper, 80% of plastics. There is much research that shows how the circular economy is a sine qua non for decarbonization [...]. After a lobbying activity, the Commission position was, we have withdrawn that to make it better and make a more ambitious one, which is the one that we got today, that it's the one that is becoming more and more important within the Commission [...]. In the strategy that has been presented yesterday (the long-term strategy, ed.), it is very present (Interviewee 14, 29/11/2018).

From this account, we understand that the first proposal on the circular economy has been withdrawn as soon as the Juncker Commission stepped in, following a lobby activity by business actors. The same story came up with more details, during the interview with an EESC member:

*The history was the previous Commissioner of the Environment Jannus Petocnik, he pushed for the Circular economy package. There was a lot of initial study by a guy called Professor Walter Stahel [...] he's known as the grandfather of the circular economy [...] and since the 1970s he's been writing about circular economy [...]. Walter had been writing about this as a concept where commissioner Petocnik got into office **he said ok let's do this and he published a very ambitious Circular economy package, and this was during the recession you know in the global downturn.** It was exciting because he proposed a new economic model. **And it was published, and it started going through this process here, in the parliament and then due to a very strong lobbying from different groups in particular Business Europe it was removed, it was pulled.** And at that time there was lot of upset and anger that it was removed from the agenda completely and the anger was building and building until there was some strong protesting particularly in the Brussels bubble from the EEB. You can imagine the European Environmental Bureau and at some point, in 2015 Commissioner first Vice President Timmermans said at some*

*conference, he said, circular economy -- why did you remove this from the agenda? And he said the only reason it was removed was to make it better, to make it more ambitious and to make it even greater and everybody went really? And the feeling was that that was a signal that perhaps didn't come from Juncker [...] .We're going to produce something even better, and in December 2015, [...] while everyone is in Paris and focused on this celebrating and excitement, here quietly the Commission produces here's our proposition, a new improved more ambitious proposition. And what got lost in the noise of Paris was this less ambition and lower targets. It was less ambitious in one analysis as it represented less of carbon reductions than the withdrawn package. **So, on the one hand the Commissioner said we're going to produce something even better. But what was produced, the analysis, showed something much less percentage targets, that lower the ambition** (Interviewee 5, 30/10/2018).*

Although the two versions from the EESC stakeholder and from the Commission differ in the level of ambition between the two proposals, these two accounts converge on the circular economy being met with resistance. Both accounts agree on the fact that the package had been first withdrawn and then brought back in by an opposite strong pressure, for example by the EEB. Although it is impossible to establish the exact cause of such resistance by business actors,⁸⁸ we can question whether introducing *circular economy* has been perceived as a potential powerful element capable of challenging the dominant social link. We might guess whether an idea of “circularity” in opposition to the “line” might have been ostracised by business actors in that it forces to re-think the “business as usual” logic and to re-think the economy as a cycle. This could introduce an idea of limit, pace, size rather than business at all costs at any time.

Interestingly, on the side of the Commission, the disruptive element that caused resistance points to the way “knowledge” is produced and exchanged within the EU. In the previous chapter I provided the examples of a type of knowledge that is rational, quantifiable, and measurable and argued that what does not fit the measurement paradigm is automatically discarded (see section 5.2.2). In this case the “resistance” towards *circular economy* within the Commission points precisely to the difficulty of the circular economy to be modelled, and thus impossible to count as climate action knowledge, as DG environment explains:

⁸⁸ Business Europe declined my request to be interviewed.

*And then at the beginning of the circular economy, these colleagues in (DG, ed.) Clima and Energy didn't see it as....**ah but we cannot model this**, he (a member of the EPSC,⁸⁹ ed.) insisted and had an influence to reach an agreement with Grow (DG, ed.) and pressure them (Interviewee 14, 29/11/2018).⁹⁰*

The same EU representative from DG Environment continued to speak of the problem of modelling that caused this resistance from DG Clima and DG Energy in the early debate of the preparation of the current long-term strategy. Eventually, the circular economy is not modelled but assumed as a parameter,⁹¹ which, as it is, it does not refer to how much circularity can be in fact put in practice:

***But I can say this: there has been a debate** when the process of preparation of this long-term strategy began. **One of the problems was modelling.** In all the modelling on climate change there is no circular economy. **And they came with assumptions of not modelling the circular economy, but introduce circular economy parameters on the strategy, in the modelling.** So if you look at this strategy there are 8 scenarios, some technological, one is circular economy, of these scenarios, you must check the data, if I remember well one is hydrogenated synthetic fuels, another is circular economy, another is resource efficiency, energy efficiency etc. with 5 we would get to 80% reductions (Interviewee 14, 29/11/2018).*

Several aspects come up in this conversation which build on the previous discussion regarding the EU's climate mitigation knowledge. Firstly, what emerges is the already mentioned pattern of quantification, rationalisation and valorisation that characterises the allegedly neutral discourse in which climate action is defined (see 5.2.2). According to this knowledge paradigm, each concept is spoken in terms of measurement, which in turn defines the EU as a technical, "regulatory" subjectivity. In the above extract, the resistance towards *circular economy* qua modelling practice is resisted precisely by those DGs that deal with climate action modelling, rather than from those who try to keep the climate signification space open, as DG Environment. Thus, the element of resistance can be perhaps explained by the difficulty in translating *circular economy* as "measurement" knowledge at work,

⁸⁹ The European Political Strategy Centre (EPSC) is the European Commission's in-house think tank, established in November 2014 by Former President Jean-Claude Juncker. This think tanks operates directly under his authority (EPSC, 2019).

⁹⁰ Translated from Italian from a non-Italian native speaker.

⁹¹ The discussion within the supporting analysis around the limitation of modelling recognizes the limits of working with assumptions.

namely an impossibility to translate it into that quantifiable element that governs our societal and economic relations and directs policymaking.

To summarise the discussion so far, in the case of the period “in between strategies”, we are facing a signifier that was initially perceived as a challenging element in signification, something that could potentially undermine the anchoring point of representation. The actual withdrawal of the project, as soon as Juncker’s Commission started its term, can be said to have shaken the foundation of discourse and for this reason it was resisted. However, despite being met by resistance by both business stakeholders and some Commission DGs such as Clima and Energy, in the next section, we will see that *circular economy* has become part of the EU’s policymaking in general and then climate action more specifically, thanks to the mobilisation of some stakeholders such as EESC and some progressive DGs such as DG environment. Hence, if *circular economy* initially carried the disruptive element of “circularity” in opposition to the “line” and now it seems to be accepted within the dominant social bond, the next paragraphs will show what its reintroduction has entailed in the “acceptance” phase.

6.5 Climate action and circular economy in the “in between strategies” period

In the previous section I started tracing the journey of the circular economy within the EU. I have first illustrated how *circular economy* was perceived as a potentially disruptive element that would oppose a holistic approach of ecosystem interdependencies to a view of linear flows and related quantified reductionist solutions to climate change (widely discussed in Chapter 5). As this element might imply rethinking our societal and economic relations and how knowledge is produced and exchanged, the circular economy project was at first resisted. Despite being met with resistance by both business stakeholders and some Commission DGs such as Clima and Energy, *circular economy* has eventually become part of the policymaking in general, and climate action more specifically, by virtue of the mobilisation of some stakeholders such as EESC and some progressive DGs such as DG environment. Today we have a long debated Circular Economy action plan (2015) and the circular economy is gaining prominence in the long-term strategy.⁹² At the same time, the previous chapter has illustrated that the current climate change mitigation action within the EU can be said to be a formalisation of Lacan’s University discourse of an allegedly neutral

⁹² The European Commission launched its first Circular Economy Action Plan in 2015 and this is the one mentioned in this project. Last 11th March 2020 the Commission has launched a new Communication on a new Circular economy action Plan (COM (2020) 98 final).

knowledge and the Capitalist discourse of false enjoyment (see 5.4.4, or in the theoretical section 3.3). With reference to the period “in between strategies”, I might wonder how *circular economy*, which potentially carried a disruptive element to the extent that it was resisted, is embedded in a dominant social link anchored to the command of competitiveness, accumulation and ultimate growth in this new “acceptance” phase.

The relevance of *circular economy* to climate action in this period in-between-strategies lies in its more prominent role in the “long-term strategy”. In the case of energy efficiency and renewables addressed in the previous chapter, an element of continuity with climate action could be immediately established between the 2030 clean energy Package and the 2050 long-term strategy, given the declared prominent role of energy efficiency and renewables in both cases. However, the case of *circular economy* and its link to climate action is more recent and not as straightforward in that it refers to a separate set of policy documents, the Circular Economy action plan (2015), which has been debated for two years (Interviewee 5, 30/10/2018). This newly found prominent role is further exemplified by the fact that DG Clima is slowly becoming one of the public faces of the circular economy while previously this role was exclusively played by DG environment. For example, during COP24, I observed a side event at the EU pavilion called “Circular Economy, the missing link in climate action?”,⁹³ to establish a link between climate action and *circular economy*. Yvon Slingenberg, Director in DG Clima⁹⁴ and one of DG Clima’s main public representatives, gave a keynote speech (11/12/2018) and established a clear connection between *circular economy* and climate action.

Within this framework the role of the Commission as knowledge exchange facilitator, is re-affirmed:

Circularity has a key role to play. We, from the EU Commission perspective, we are administrators, regulators, supporting the policymakers and we put in place rules, statistics framework, regulatory framework in order to support and help business in the right direction transition and also, of course, maintain the competitiveness of EU business, but in the clear direction of a more sustainable economy. We are convinced that Europe can lead in this transition [...] I think it's on the map the EU Circular

⁹³ Although on those days the EU was running a series of official long-term strategy side events, this specific one was not one of the official events, but only one of the many side events that are organised by the Commission at side events.

⁹⁴ Responsible for International climate negotiations and mainstreaming of climate issues in EU policies.

*economy action plan which has also made a clear case for reducing GHG reductions from circularity that was put forward in 2015. In the meantime, you also mentioned the International Resource Panel has already come up with a different figure showing how significant the GHG reductions from circularity can be. I have impressive figures here 63%, at the same time boosting economic activity in the EU and increased GDP by 1.5 %.*⁹⁵ ***So clearly, we win and that's the message we're trying to bring*** (Yvon Slingenberg, 11/12/2018).

This metonymic link between *circular economy* and climate action, purported by technical and regulatory subjects with quantitative data at hand, seems to be perfectly in line with the University/Capitalist social bond previously described in Chapter 5. For example, a section of the official long-term strategy policy document “A competitive EU industry and the circular economy as a key enabler to reduce greenhouse gas emissions” states:

The EU industry is already today one of the most efficient globally and this is expected to continue. A competitive resource-efficient and circular economy will need to develop to keep it so. The production of many industrial goods like glass, steel and plastics will see further significant reductions in energy needs and process emissions, particularly with increasing recycling rates. Raw materials are indispensable enablers for carbon-neutral solutions in all sectors of the economy. Recovery and recycling of raw materials will be of particular importance in those sectors and technologies where new dependencies might emerge, such as a reliance on critical materials like cobalt, rare earths or graphite, whose production is concentrated in a few countries outside Europe (COM (2018) 773 final p. 12).

The official policy document states the importance of *circular economy* in function of the competitiveness of the EU industry. Unsurprisingly, we find all the common themes that characterised the climate mitigation qua energy transition reflections in the previous chapter. For example, we find reference to the role of the circular economy in bringing “significant reductions in energy needs and process emissions”, thus in terms of “savings” and “efficiency”, but most certainly not a reduction in volumes of production:

⁹⁵ The reference is to a study that is also mentioned in the long-term strategy supporting analysis at p. 144, Material Economics AB (2018), The Circular Economy, <http://materialeconomics.com/latest-updates/the-circular-economy>.

Given the scale of fast-growing material demand, primary raw materials will continue to provide a large part of the demand. But a reduction of materials input through re-use and recycling will improve competitiveness, create business opportunities and jobs, and require less energy, in turn reducing pollution and greenhouse gas emissions (COM (2018) 773 final p. 12).

Finally, we find once again the recurring theme of the subject-consumer governed by the untouchable command (consume!) (see 5.2.2) who is invited to divert consumption patterns towards allegedly “circular” solutions. These can be either induced by technological development, i.e. digitalisation, or are promoted as allegedly “active” consumption choices of eco-friendly products and services:

Consumer choices will also matter for product demand. Some may come from other ongoing transformations, such as digitalisation reducing paper demand. Others will be more climate conscious choices, such as customers increasingly asking for climate and environmentally friendly products and services. This requires more transparent information to consumers about carbon and environmental footprints of products and services so that they can make informed choices (COM (2018) 773 final p. 12).

In this respect, a speaker from DG Environment makes a spontaneous but very relevant point about the wording “consumer choice”. When describing the different scenarios modelled in the long-term strategy the speaker explained:

Then they make a combination technological plus circular economy, and then another combination circular economy and lifestyle changes. They do not use this term, however, they use consumer choice. At the beginning it was lifestyle, but it seems that people in the Berlaymont⁹⁶ did not like it because they feel it's like imposing a way of living (Interviewee, 14 29/11/2018).

The discussion about the fear of “imposing a way of living”, which took place at the high political levels of the Commission is a recurrent theme in speech and refers to my previous discussion about neutrality of knowledge and disavowed command (see 5.2.2). In this case, the debate between the wording “lifestyle change” and “consumer choice” is significant as lifestyle change introduces a stronger excess of meaning “change” compared to consumer

⁹⁶ Name of the building in the Commissions where the actual political decisions are taken.

choice. The latter keeps the alleged “freedom to choose” unaltered, or rather our freedom to choose what to consume, with consumption being treated as a factual thing that cannot be questioned. However, more precision is needed here: the speaker is right in stating that in the 25-page policy document, that is the Commission Communication (COM (2018) 773 final), *lifestyle change* is replaced with *consumer choice*. This is perhaps due to the fact the Communication is a document that has a wider echo and will be read by a wider range of actors in society. In the supporting 400-page staff working document, the terms *lifestyle change* is retained and is also one of the predicted scenarios (COM (2018) 773 final supporting analysis). In any case, by juxtaposing or substituting *lifestyle changes* with *consumer choices*, and establishing thus a homologous relation between the two, it is possible to infer that the real change in “lifestyle” is applicable only to the individual buyers-consumers. This then would not mean a paradigm change at collective level including modes of production on a large scale, volumes of production across policy areas, for instance in industry, transport or agriculture.

As a result, it is perhaps unsurprising that introducing *circular economy* in the signifying chain in the same period “in between strategies” does not result in the subversion of the University/Capitalist social bond altogether and does not produce new significations, what I have referred to as Lacan’s Hysteric discourse or Analyst discourse (see 3.3.2). Indeed, all signification produced is anchored and made meaningful by a given command of competitiveness and growth that gives direction to the overall discourse. However, this is not the end of the story. Dismissing the case of *circular economy* as an easy case of co-optation into the dominant University/Capitalist social bond is too simplistic and precludes a whole series of insightful reflections about it. Indeed, as we have seen at the beginning of this chapter, *circular economy* did not originate in function of the disavowed dominant signifier of consumption, competitiveness and growth (see 5.2). Rather, unlike *energy efficiency*, which can be regarded as the by-product of the University discourse of “knowledge at work”(see Chapter 5), *circular economy* originally draws on an alternative philosophy and metaphor of complexity and metabolism that has been imported into the dominant University/Capitalist social link.

As we saw throughout the project, a seemingly closed discourse is in fact to be considered open due to the presence of the inconsistent Lacanian subject of the enunciation, who is driven by the desire to reach full representation within their socio-symbolic structure.⁹⁷ This

⁹⁷ The subject produced by language as surplus of sense.

means that I can investigate what “becoming circular” means for the EU to detect if any fractures are produced and reflect on how these fractures are handled within the discourse. From these premises, the rest of the chapter develops as an exploration of the effects of signifiers such as *circular economy* or *circularity* on the speaking subjects, rather than engaging in a critique of the “circular economy” per se. This way I shall emphasise the peculiarity of circular economy and detect what differentiates it from other “green growth” concepts such as energy efficiency.

6.6 Acceptance: is it a circle or a line?

6.6.1 Expanding the boundaries of signification within the EU?

This paragraph will look at how the idea of circularity is spoken by the EU in the “acceptance” phase. In the previous paragraphs I argued that after an initial phase of “resistance”, *circular economy* has been reintroduced, although in a more neutralised, co-opted and reassuring version, which corresponds to what Lacan defined as the University/Capitalist social bond. At the same time, we saw in the theoretical chapter and in Chapter 5, that a seemingly closed discourse is in fact open due to the presence of the inconsistent subject of the enunciation. As a result, I can observe the effects that *circular economy* has on the subjects observed and interviewed in terms of how any fractures in discourse, perceivable in inconsistencies, gaps, weaknesses, are produced. Indeed, how these ruptures are handled makes it possible to reflect on the nature of the current climate transition and on what can potentially bring a real change.

I will argue that the silos approach unintendedly returns in speech, despite more integration and streamlining being advocated by DG Environment and DG Just (see 6.3). This implies a reductionist conceptualisation of *circular economy*. More specifically, we will see how *circular economy* is unable to confer the meaning that the entire chain offers, but it is signified in different forms and shapes, as a newly found climate policy, as product standards, as waste management, as ecodesign qua energy efficiency, as big and fast loops of products’ demand and supply. In this respect, the subjects under observation, whether the EU representatives or the stakeholders, seem to be split between the socio-linguistic structure that defines their way of organising societal relations and the willingness to come up with a comprehensive climate policy by adding another level, that of *circular economy*. Thus, rather than being spoken as a new centre around which our socioeconomic relationships have to be re-thought, *circular economy* is still unconsciously spoken in the silos defining the EU as a regulatory, technical subjectivity. As a result, this poses a serious discursive limit to the

picturing of a “circle”. Even in those cases in which it is possible to depict a circle via the core issue of design, representation breakdown when “circularity” is spoken as a loop whose pace and size should be able to cover the growing demand of goods.

6.6.2 Circular economy and its link to climate action

The metonymic link “circular economy” + “climate action” within the EU has been so far taken for granted given its role in the long-term strategy. However, when *circular economy* was first introduced within the EU (before the first proposal was withdrawn), it was associated with finite resource and resource scarcity, thus environment and the planet in its wider understanding, but not specifically with “climate action”. However, it can be argued that the link with climate policy refers in this case to an association with existing policies that treat climate change within the climate + energy signification space, rather than within an alternative chain climate + environment. In this respect, DG Environment explains:

*I suggest you look at the **Communication on the circular economy because it didn't speak much of climate change, 2-3 times. This has consequences on change** because probably there was no strong scientific evidence to demonstrate this impact with data. Now there is* (Interviewee 14, 29/11/2018).

Indeed, if we look at the first EU Commission Communication “Towards a European Circular Economy” COM (2014) 398 final/2, the link between the circular economy and *climate action*, is not that prominent:

Some EU policies and instruments already provide tools and incentives in line with the circular economy model. The waste hierarchy that underlies our waste legislation is leading progressively to adoption of the preferred options of waste prevention, preparation for reuse and recycling, and discourages landfilling. Chemicals policy aims at phasing out toxic substances of very high concern. Some ecodesign measures for energy-related products include requirements on durability and to facilitate recycling. The Bioeconomy Strategy¹² promotes the sustainable and integrated use of biological resources and waste streams for the production of food, energy and bio-based products. Climate policy creates incentives to save energy and reduce greenhouse gas emissions (COM (2014) 398 final/2 p. 5).

The second Communication on the circular economy is called “Closing the loop – An EU action plan for the Circular Economy” (COM (2015) 614 final p. 2). It was released the following year, in 2015, and is the foundation of today’s Circular Economy Action Plan. Also, this second Communication addressed the link between the circular economy and climate policy explicitly in relation to climate change mitigation efforts:

*The circular economy will boost the EU's competitiveness by protecting businesses against scarcity of resources and volatile prices, helping to create new business opportunities and innovative, more efficient ways of producing and consuming (...) At the same time, it will save energy and help avoid the irreversible damages caused by using up resources at a rate that exceeds the Earth's capacity to renew them in terms of climate and biodiversity, air, soil and water pollution. **A recent report also points at the wider benefits of the circular economy, including in lowering current carbon dioxide emission levels*** (COM (2015) 614 final p. 2).⁹⁸

These extracts from the two different Communications – before the circular economy project’s withdrawal and after its reintroduction respectively – are relevant for one main reason. It seems that *circular economy* has been linked since its introduction to all the existing policies (and signification spaces) that deal with the environment and the planet in its wider understanding, for example the existing legislations on waste, chemicals, ecodesign measures, but not specifically to “climate action”. Hence, the metonymic link with climate policy is perhaps spoken by DG Environment speaker as an association with existing policies that treat climate change within the climate + energy signification space (see Chapter 5). Apparently, an alternative chain climate + environment that treats climate change within a signification chain of planet, ecosystems and biophysical environment at large is excluded. Thus, DG Environment speaker seems to suggest that the link between *circular economy* and climate policy refers to a specific meaning of “climate action”, namely that of the climate change qua energy transition metonymy that has been shown in the previous Chapter. I might wonder whether this recent *circular economy* + *climate action* metonymy has implications for how each DG sees circularity. In fact, when speaking of “circular economy” and of willingly coming up with a comprehensive climate policy, these subjects resort to a socio-symbolic network that represents them and defines them. In fact, I can assume that each DG

⁹⁸ It refers to the report *Growth within: a circular economy vision for a competitive Europe*, report by the Ellen MacArthur Foundation, the McKinsey Centre for Business and Environment and the Stiftungsfonds für Umweltökonomie und Nachhaltigkeit (SUN), June 2015.

associates those circular aspects linked to their own specific tasks, rather than seeing them as a new centre around which our socioeconomic relationships must be re-thought or a common pattern across policy areas. This results in an ever-partial signification that endlessly defers the desired state of wholeness in linguistic representations, in that it poses a discursive limit to circularity and results again in a rationalised, bureaucratised, reductionist conceptualisation of *circular economy*.⁹⁹ Consequently, the circular economy signification is fractured and inherently inconsistent. In the next section, for example, *circular economy* is associated with a set of product labels.

6.6.3 Labels in the context of a product policy

In the following extract, a speaker from DG energy resorts to the metaphor of a train which is, I would suggest, emblematic as we can understand signification as the signifying chain as the carriages of the train of language. In this case we see *circular economy* being compared to a carriage of a locomotive, where *circularity* is associated with standards, that is labels and letter scores, to be integrated and attached to a product policy:

It's another example of the locomotive and the carriages. So, the locomotive is the product policy and we have extremely good product policy for energy efficiency and that's a label on the fridges and the banning inefficient fridges and we have that for many products. And it's easy for us to add other carriages to that train. So for a long time with washing machine and dishwashers we've added water use for example, we are now studying how we might have a reparability label or a letter score, the score on the label so your label in the shop wouldn't just tell you how much energy you use. But also, if it breaks down, how easy it is to get repaired. That's like another carriage on the train. We are, we've been looking into [...] how to add durability requirements, recyclability requirements as minimum requirements for products (Interviewee 8, 14/11/2018).

It is worth noting that the metaphor of the locomotive and the carriages was mentioned a few times during the interview. Sometimes this metaphor stood for the Commission being the train and the DGs being its carriages, probably a metaphor for each DG representing a specific policy area. In this case, the locomotive stands for the product policy with the carriages being the standards, that is to say, the attached labels or letter scores referring to energy use, water use and other elements of the circular economy such as reusability and reparability standards. These standards and information allow the consumer to make

⁹⁹ The Lacanian subject coincides with this inconsistent identity (see 3.2).

informed choices when purchasing and consuming. Thus, in the DG Energy unit that is responsible for energy related products, the image of *circular economy* is associated with standardisation via the labelling practice on reusability and repairability that comes with an energy product, with *circular economy* being another policy-carriage to attach to the train. In the next section circular economy is associated with a policy of increased recycling.

6.6.4 Circular economy as recycling

Other examples indicate that *circular economy* is spoken as more recycling. Recycling can be pictured as an intervention at the periphery of the circle rather than at its core. Thus, I might wonder whether *circular economy* becomes simply a synonym of waste management and whether this helps break the discursive boundaries of the “line” and depict instead “circularity”. For example, DG Clima speaker explains below:

So, where do you get all the resources if you don't recycle more and better? If we say we need to have electricity transports system you need to have a way of recycling better which is not being done to the best extent today. So, the circular economy is part of the solution very clearly and just look at the staff working documents next week, you will see a lot on circular economy (Interviewee 10, 21/11/2018).

This extract associates more explicitly *circular economy* with better recycling. The logic seems straightforward, reasonable and even desirable: populations grow, we cannot extract more and more new resources, but we can recycle more. Moreover, if we are not recycling properly, we can improve. On the other hand, I might wonder whether the strict focus on recycling is not enough for speaking of circularity in that it can still be based on ideas of fuelling a productive recycling industrial machine. During the COP24, at the EU side event “Circular Economy, the missing link in climate action?” Yvon Slingenberg (DG Clima) claimed that “the recycling industry has been mentioned has a major role to play” (11/12/2018). In this case we might infer that, no matter how much we produce and consume, as long as we fuel an ever-growing recycling machine, we have circularity. For example, in the next extract from DG Clima the speaker seems to be caught in the trap of discourse:

I think if you look at what I mean an element of what you say is always true. I think if you go back even 10-15 years ago the idea of having a strong industrial complex to show more and more goods was a notion that more people even in Brussels would have defended. The thing that today we still want a very strong industrial complex we might

need to do more recycling, more re-use, different business concepts that's all very different [...] I mean the 2 related DGs on circular economy are DG growth and DG environment. So that is happening. They are really trying to talk to industry. Or talk about how re-use and recycling can increase in Europe or how we can be resource efficient. They are really doing that (Interviewee 4, 11/10/2018).

This extract begins with the speaker stating that 10-15 years ago, having a strong industrial complex and ever-growing production/consumption would have been strongly defended even in the Brussels headquarters, leading us to guess that perhaps today things have changed. But shortly after, the speaker is caught in the chain of discourse and a split between personal considerations and the constraints of the social link spoken through him/her is produced. This can be inferred when the speaker claims that as “we still want a very strong industrial complex” (Interviewee 4, 11/10/2018), this makes recycling necessary. Hence an intervention on the end-side of the product, that is recycling, is necessary to keep the premise, the anchor of representation, unaltered. It can be argued that “knowledge” on climate action and circular economy must be mobilised accordingly. Hence, *circular economy* as recycling can lead to the effect of having an ever-expanding recycling industry, which as every other industrial sector will be dictated by the same command of competitiveness and accumulation. Moreover, the meaning of *recycling* is contentious as well, in that behind this signifier lies a measurement rate that is at the centre of an unresolved dispute between Member States (see 6.7). Therefore, if for these speakers *circular economy* means increased recycling, and more generally becomes a metaphor for “recycling” or “waste management”, I might wonder whether this is enough to break the discursive boundaries of the “line” and depict instead “circularity” (see 6.7).

Some DGs such as DG energy associate *circular economy* with a series of standard labels to add to their product policy, others such as DG Clima associate it with increased recycling an action at the periphery of the product life cycle. However, some DGs, perhaps those involved with the circular economy more closely, seem to have a wider understanding of circularity and it is to the design component that I now turn.

6.6.5 Circular economy as ecodesign

If DG Clima and DG Energy associate *circular economy* with its peripheral aspects or “recycling”, those DGs involved more closely with the circular economy, namely the lead DGs DG Environment and DG Grow, seem to have an idea of the bigger picture, which

involves acting on design. In their view ecodesign is a necessary component in the circular economy. However, the signification space in which *ecodesign* is confined at the moment, is that of energy efficiency. On a more positive note, we will see that despite the stabilisation of the *ecodesign* qua energy efficiency, another section of the same Ecodesign working plan addresses the limits of ecodesign qua energy efficiency and advocates a broader focus for the future. In this respect, DG Grow explains:

*Of course, what's happening now is a more active attempt in a range of policies. How you can do that. For us, we see it in a battery what we're doing where **we want to make sure right from the start** that the requirements for batteries is that batteries in cars means that they can be easily recycled* (Interviewee 11, 22/11/2018).

In this case, we see that in DG grow the shift towards the regenerative component emerges spontaneously: "Make sure right from the start that batteries are easily recyclable" (Interviewee 11, 22/11/2018). In fact, DG Grow explains the importance of ecodesign, at least from the point of view of their own DG:

***Ecodesign is the core objective of this** [...] colleagues would tell us that all of this can be recyclable and there are factories in Belgium that can recycle this. The key issue, and this is **what has to be tackled by design**, is a company that is doing the recycling does not want to receive a battery when a person spent an hour to undo all the screws and take out all the different elements. Because that's what makes the process unaffordable. **What you need is a battery that can go into the machine and being dismantled automatically. So, you go to design if you can do that that shouldn't be mission impossible. Then recycling batteries is straightforward** and we can do with the technology we have at the moment and re-use all the core elements for recycling. So, of course the things with cars unlike with mobile phones, you will have people finishing with their cars then they go back to dealers they're not going to be thrown away in the bin, like mobile phones are. They should come back into the chain [...] as long as you solve this design issue not only you can have an obligation of manufacturing to ensure all the recycling in place and make it easy and profitable, but we'll see* (Interviewee 11, 22/11/2018).

Thus, the problem of ecodesign at least in car batteries is not the dismantling and reassembling tasks per se, as car batteries are already recyclable. The main issue is that this is a labour-intensive task, which as such is not perceived as a cost-efficient solution. On the

other hand, the more desirable automatization casts doubt over the increasing volume of car batteries to be recycled in the future (see 6.6.8). It also calls into question the development of technology and related technological advances that have their own product life cycle (see also 5.5.3). At the same time, bringing *ecodesign* signification in the debate causes an interesting shift towards the signification space of energy efficiency, (see Chapter 5 for an in-depth case study on energy efficiency). In this regard, Yvon Slingenberg, Director in DG Clima at the COP24 side event “Circular economy the missing link to climate action” (11/12/2018) claims:

*This is also about product design. What we’re trying to do there, at EU level, we have policies we call **ecodesign** we look at standard settings for products when it comes to **energy use*** (Yvon Slingenberg, 11/12/2018).

In fact, it seems that *ecodesign* is defined along the energy efficiency signification space. For example, the Communication Ecodesign working plan 2016-2019 (COM (2016) 773 final) claims:

*The Ecodesign and energy labelling framework has been one of the **most effective policy instruments at EU level to promote energy efficiency**, estimated to contribute around half of the energy savings target for 2020. The Ecodesign and Energy Labelling legislative framework has the dual purpose of ensuring that **more energy-efficient products come to the market** (through *ecodesign*) **while encouraging and empowering consumers to buy the most efficient products** based on useful information (through *energy labelling*)* (COM (2016) 773 final p.2).

I previously highlighted that despite the meaning stabilisation of *ecodesign* qua energy efficiency, another section of the same Ecodesign working plan addresses the limits of *ecodesign* qua energy efficiency and advocates a broader focus for the future:

The possibility to repair, remanufacture or recycle a product and its components and materials depends in large part on the initial design of the product. It is therefore crucial that these aspects are taken into account when investigating possible Ecodesign implementing measures. The focus has so far been on improving the energy efficiency of products even if resource efficiency provisions have been part of the Directive since its original adoption in 2005 and were introduced for some product groups with criteria

concerning e.g. water use and durability. With this new working plan, the Commission will explore the possibility of establishing more product-specific and/or horizontal requirements **in areas such as durability** (e.g. minimum life-time of products or critical components), **reparability** (e.g. availability of spare parts and repair manuals, design for repair), **upgradeability**, **design for disassembly** (e.g. easy removal of certain components), **information** (e.g. marking of plastic parts) **and ease of reuse and recycling** (e.g. avoiding incompatible plastics), greenhouse gas and other emissions, and to further establish the scientific basis for developing corresponding criteria that meet the requirements of the Ecodesign Directive (COM (2016)773 final pp. 8-9).

Although the ecodesign signification was at the beginning confined to the signification space of energy efficiency, in the Ecodesign working plan document, the ecodesign signification seems to be expanding towards a holistic view to all the material flows and not simply energy efficiency. Moreover, as will be suggested in the next section, *circular economy* seems to be pulled along the signifying chain of allegedly new business models.

6.6.6 New perspectives on the circular economy?

New perspectives are constantly being added to the notion of *circular economy*. An interesting one is the service-based model, which did not necessarily originate from the philosophy of circularity but that is today accepted as part of the new idea of circularity. The consequence is that circularity as service-based model appears to be a socio-symbolic construction, that Lacan called “fantasy”, (3.2.4) whose function is to promise to erase the impossibility of signification. In fact, its narrative is perceived by some circular economy advocates, such as the EESC, beyond control:

*Because I’ve had a lot of problems with how the narrative is going ...I’d also like to have a conversation on it [...] because it’s **constantly changing and evolving**. **There are new perspectives on it [...]. One is that, I think people don’t distinguish and so it creates confusion you probably hear people talking about the service-based business model.** Are you familiar with the idea of selling a service rather than selling a product? Philips is always selling these examples. Caterpillar does a lot of work in a lot of different groups. And people would say what about food? How can you include food because we produce food, **we can’t have a service model on food** we still need to produce food and either it’s wasted, how do you do that? (Interviewee 5, 30/10/2018).*

When speaking of *circular economy* as service-based model we must consider that this new business model did not develop on a circular economy premise – at least in its original philosophy – but it originated elsewhere. “Circularity” became attached to it at a later stage, like one of those carriages of the train mentioned by one the DG energy speakers (see 6.6.3). However, it can be argued that the fact of determining a change in ownership by selling light as a service rather than lightbulbs does not automatically mean becoming circular. One reason for this is that not all goods and products in circulation can accommodate a service business mode such as food, as the speaker explains. Second, it can be argued that assimilating an idea of circularity aiming to save resources into the service-based model creates the illusion of selling less products, in that it involves a metaphorical shift from the tangible “good” to the intangible “service”. For example, if I buy a service rather than a product such as laundry services rather than owning a washing machine, it gives me the illusion that the company is selling less machines and they are making profits on the “service”. However, if the planned obsolescence on the machine is not eliminated,¹⁰⁰ after a few years the company who owns the machine might force me to rent a brand new machine, with the result that they are not selling less machines in the first place. The situation is comparable to those services we have on our mobile phones or laptops, such as apps or software, that after some time become incompatible with our devices, forcing us to replace them.

By embracing this signification shift of *circular economy* qua service-based economy we might create the illusion that the shift from the tangibility of “goods” to the intangibility of “services” will automatically benefit the climate and the environment. However, if we imagine to merely substitute a tangible “good” with “service” by keeping the logic of the increasing total energy volumes and goods in circulation unaltered, the contribution of the service-based model must be further assessed. In this sense the service-based model as an integral part of circularity, summed up in the metaphor “substituting goods with services”, resembles more one of those socio-symbolic constructions that the subjects desire to believe, that Lacan called fantasy” (3.2.4). These promise to cover the impossibility of signification, where in truth these subjectivities are trapped in the same closed circuit of commodities. Hence, this illusionary sense of plenitude translates again into that paradoxical painful satisfaction called *jouissance*, where production and consumption patterns remain virtually unaltered, sustained by the illusion of consuming services rather than material goods.

¹⁰⁰ See description of the event “Tackling premature obsolescence in Europe” in Table 2 in Appendix.

Ultimately, we should ask ourselves whether *circular economy* can be regarded as the new core principle around which to re-organise our economy.

6.6.7 Is the whole economy becoming circular?

Transitioning to a circular economy does not mean that all economy will be converted and reconceived as a circular one. Adopting a circular economy within the EU means adding “more circularity”. This is line with the idea of adding another carriage-policy to the train of the Commission. For example, when I asked DG Research and Innovation if the circular economy involves a reconversion of all economy, the answer was:

No, but more circularity we think is good for climate, for the resources, for pollution, for many aspects, sustainability in the wider sense (Interviewee 9, 16/11/2018).

It would appear that the EU’s policymaking is not aiming at converting the whole economy into a circular one but to increase the degree of circularity for a vague idea of sustainability. Similarly, during an interview with DG Energy, I tried to understand whether a perspective of circularity and material flow is borne in mind even if they work with such sectorial approaches. For example, I asked whether the bigger picture of the circular economy should always be taken into account. To prove my argument, I pointed at the wooden table at which we were both sitting, as the “table” is not an energy related product, but it is still part of a manufacturing process. The answer from DG energy points again to the usual division of work and perhaps not to a transversal view (sic):

No no, it’s not about everything because our train is called energy related products. But when it’s an energy related product, which means energy use product in practice, well for various technical reasons then we can do recyclability, then we can do reparability, we can do other things. Our train is a legal train, it’s a regulation train which has a particular content, it’s never going to be DG energy which proposes another train, another ecodesign directive for tables. I wouldn’t have any problem with that happening, but it’s just it would be bizarre for DG energy to do it. But we happened to do it for energy use products and that has been very nice to bring circular economy aspects as well. And we prioritise energy, sorry, circular economy aspects which have direct benefits for consumers, and which can be measured on the product because our train is like that. I mean, you know where we set energy requirement on a fridge, then there is a whole lot of (cannot be heard Ed.) things checks. By buying the fridge so you can check

*also whether the fridge has HFC in it, was HFC? Anyway, you know what I mean, or if it has met the reparability criteria by looking at the fridge. You can't check how much energy was used in manufacturing it, you can't see... what I mean, **our train, it's pretty good. But we can't do everything. But we like doing the things we can do [...]** We resisted these carriages to our train but now we are convinced that is the right thing to do and we are happy to do it* (Interviewee 8, 14/11/2018).

Circularity here refers though to those “circular economy aspects” that can be added to the product policy, or energy related products in that DG. A couple of interesting and interconnected aspects come with this extract. First it still appears that another split between personal considerations and the constraints of the social link spoken through him/her is produced. In fact the speaking subject qua EU representative as a neutral, quantifiable, regulatory agent is still spoken by their silos and cannot depict a holistic approach encompassing all materiality (when I pointed at the wooden table): “No no it's not about everything”, “It would be bizarre for DG energy to propose this” (Interviewee 8, 14/11/2018). Within this framework, the speaking subject mobilises the available signifiers available to him/her, but this act of identification with language fails to achieve the desired full representation, and once again the discourse seems fractured. It can be argued that the linguistic acts of identification within this regulatory role, defined as a “regulation train” (Interviewee 8, 14/11/2018), and the deployment of skills and knowledge within this type of subjectivity prevents depicting circularity. Finally, towards the end the speaker betrays a sense of dissatisfaction with the way in which the “carriages” (of which he/she is a representative) perform and a signification that is never full, achieved, which is comparable to Lacan's *jouissance* (see 3.2.3): “Our train, it's pretty good. But we can't do everything. But we like doing the things we do” (Interviewee 8, 14/11/2018).

As it has been illustrated with the examples above, the most striking aspect is that the silos defining the EU as a regulatory and technical subjectivity return every time in speech. It can thus be argued that the way the circular economy knowledge is put to work can be a discursive limit to a picture of “circularity”, in that it translates again into a linear reductionist knowledge around circular economy and climate mitigation action more in general. At the same time, even if we assume that all the aspects of circularity are taken into account, which might potentially lead us to see the “circle” and no longer a “line” – from the core of ecodesign to the periphery of recycling – a potential breakdown in representation occurs. This breakdown of representation reveals the limits and impossibility of full signification

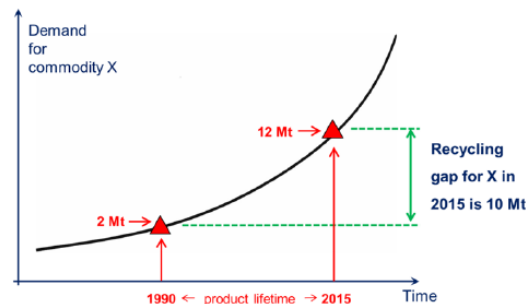
occurs every time issues of “pace” and “sizes” of the loop emerge in speech. It is to these aspects that I turn next.

6.6.8 The size of the circle and the pace of its movement

Even when *circular economy* is seen as a loop by those subjects bearing in mind the core issue of design, as the DG Growth speaker in the previous section, this does not automatically translate into an understanding of circularity that includes complexity, metabolism, regenerative capacity, let alone ecosystem cycles and planet boundaries, as strong signifiers. Even in those cases in which it is possible to depict a circle via the core issue of design, such circle resembles more an endless loop that must go at an increased speed, while also being large enough to cover the growing demand for goods. As argued in the previous section, when functionaries discuss issues about the “pace” or the “size” of the loops, a potential breakdown of representation occurs. Regarding the pace of the loop, during a five-day stakeholder event organised by DG Grow called “Raw materials Week” (see Table 2, in Appendix) one of the graphs that were used pointed to the gap between critical raw material recyclability and actual demand, as Figure 6 below illustrates:

CRM supply via recycling (4)

CRM recycling still at technical cradle stage . Recycling CRM from secondary sources cannot supply entire quantity that is needed for growing market due to lifetime of products in ‘use’ stage and resulting ‘recycling gap’



Source/figure SCREEN/Deliverables



When demand for a commodity increases over time recycling alone cannot meet demand. Here we consider a product that uses a commodity X and that has a lifetime of 25 years. If demand for commodity X increases in that time from 2 million tonnes per annum to 12 million tonnes per annum, there is a ‘recycling gap’ of 10 million tonnes. This gap can be filled by production from primary sources.

Figure 6: Slide taken from the SCREEN presentation at the CRM event

Evidence of the gap between recyclability and demand is also reported in the long-term strategy staff working document (COM (2018) 773final supporting analysis).¹⁰¹ If on the

¹⁰¹ The EU is at the forefront of the circular economy and increasing the use of secondary raw materials. For example, recycling rates of some metals such as iron, aluminum, zinc, chromium or platinum already reach over 50%. For other, especially those needed in renewable energy or high-tech applications such as rare earths, gallium, indium secondary production represents only a marginal contribution. Significant amounts of resources leave Europe in the form of wastes and scrap, which are potentially recyclable into secondary raw

one hand the DG grow speaker mentioned the recyclability of car batteries, the following extract reveals that the almost total recyclability of car batteries “clashes” with an ever growing demand for cars, and that the car batteries “circle” cannot be expected to cover all the demand, as the speaker explains:

Well there is good news because with car batteries, as long as they're made in a form that is easy to dismantle at the end you can recover nearly all 98%-99% of the original raw materials, so you can more or less have a sort of virtuous circle of recycling . What you can have as a problem is that the selling of electric cars continues to grow dramatically. Now electric cars last longer than petrol diesel cars, so the batteries are not going to be recycled for another 10 -15 years. So, there is this gap where you're going to have an increased demand for batteries. But the raw materials are not coming back into the system you have to get them from elsewhere, from mines. Or if we can be much more efficient on recycling for example mobile phones apparently, at the moment, we only recycle something like 10% of mobile phones. If we make 100% there's a company here, a Belgian company, a big supplier of raw material that's the equivalent of 2 large mines for lithium and cobalt, sorry I'm not sure there's particularly a conflict. If you're going to build cars, however green they are, there are going to be environmental issues full stop. So, as always, it's a plus or minus thing. The policy of the Commission the policies of the Member States and China and the States is that electric cars are a better solution than petrol ones, far from being perfect. There are also huge implications in terms of infrastructures to support the recharging of cars (Interviewee 11, 22/11/2018).

We understand that the secondary raw materials market can cover only a small part of the demand. If the car industry grows, a shortage of recycled batteries able to cover that car production in the short term can occur. This would mean engaging with new mining activity and further raw materials extraction. However, this does not seem to be particularly conflictual from the point of view of the representative of a DG whose aim is growth: “Sorry, I’m not sure there’s particularly a conflict” (Interviewee 11, 22/11/2018). In this case it seems that an encounter with the traumatic point of signification, the impossibility of having both a growing car industry and batteries circularity, is neutralized and positively integrated

materials. However, given the scale of fast-growing material demand, primary raw materials will continue to provide a large part of the demand. Also, due to long time spans until these reach their end-of-life stage, recycling opportunities will fully materialise with a lag of several years or, in the case of buildings, several decades (COM (2018) 773 final support analysis p. 259).

into signification to the point that it is not perceived as conflictual. Indeed, a sense of painful (dis)satisfaction seems to emerge within this impossibility: “If you’re going to build cars however green they are they’re going to be environmental issues full stop. So as always, it’s a plus or minus thing” (Interviewee 11, 22/11/2018). It appears that this state of full representation, embodied by a never achieved state of “circularity”, is always deferred and the sense of plenitude of signification is only illusionary.

Thus, more circularity does not necessarily mean an economy that goes at a slower pace, that flows slower than a linear one, or that respects the times necessary for a regeneration of the system. In fact, by keeping the demand and supply logic unaltered this translates into a fractured loop that must go fast enough in order to cover the demand. Moreover, whenever circular solutions are not enough, the purpose of circularity is vinified it that it simply means more extraction. As a result, we might have small circles of recycled batteries within a still predominant linear economy that attempts to respond to increasing demand with increasing supply. *Circular economy* therefore becomes another fictitious change or transition that gives an illusionary sense of plenitude which in truth creates that paradoxical painful satisfaction that Lacan called *jouissance* (3.2.3).

Similarly, a breakdown of representation seems to occur every time “the size” of the loop emerges in speech. For example, if on one moment the speaker from DG grow is talking about the ecodesign and recyclability of car batteries, shortly after the speaker upholds the EU car industry competitiveness and world markets expansions:

So one of the things by introducing standards is that you encourage industry to invest more in innovation in this area so that they can remain competitive not only in the EU and meet the EU standards but also being competitive on the world market. And there’s no bigger market for cars than China so I mean I think I might get the years wrong but not that long ago the market in China, 10-15 years ago, was the same as France, something like 3 million cars a year. Now it’s something like 23 million cars a year so it’s a huge huge market which is important for the future of our industry (Interviewee 11, 22/11/2018).

This circle or circles seem to be embedded in a lead DG that looks on the one hand at ecodesign issues and on the other hand at world markets expansion where production is delocalised, and international shipping is the norm. Hence, this has huge implications for the

way we picture circularity. At the same time, this signification twist should not be surprising if we consider that *circular economy* is in the hands of DG grow whose existence, subjectivity, is inherent to growth. Eventually, I have illustrated that the fractures emerging in discourse regarding *circular economy* emerge. More specifically, each signifier, *circular economy* in this case, is unable to confer the meaning that the entire chain offers, but it is signified in different forms and shapes, as a newly found climate policy, products labels, as waste management, as ecodesign/energy efficiency, as big and fast loops, as a new business model, all at different times of the enunciation.

As with the case of energy efficiency and renewables (5.4.4), the main point here is not choosing what the “real” meaning of *circular economy* is. Rather, starting from the signifier and how the split subject arises as a consequence of the signifier, I have illustrated that *circular economy* is all that is being spoken, inconsistencies and gaps included, in that these embody the ontological surplus-loss of signification.¹⁰² It can be concluded that this phase of “acceptance” has unsurprisingly entailed a loss of the traumatic potential that the “circularity” metaphor brought with it, to the point that *circular economy* lost its very same peculiarity of “circularity”, thus the possibility of bringing a change of paradigm. In fact, the apparent circularity is translated into a new loop, a circle of endless (dis)satisfaction in which the subject is trapped. This new loop carries with it the painful pleasure of seemingly going more and more circular – through more recycling, more ecodesign-energy efficiency, new business models, faster and bigger loops – without seeming to achieve the intended transformation and pursue the desired and required climate objectives. At the same time, I might wonder whether there is anything left of that original disruptive element that had caused resistance.

6.7 The element of counter-resistance

By making use of the Lacanian subject, in the previous section I showed where the fractures of the University-Capitalist social bond reside. It can be argued that although *circular economy* potentially entails the expansion of the very narrow signification in which these DGs work with regard to climate action (climate + energy nexus), the fact of simply annexing *circular economy* to a climate action qua energy metonymic slide does not automatically translate into a change of direction in terms of how climate mitigation action is thought and constituted. It can be observed that this expanded signification does not

¹⁰² It is this excess-leftover that sets desire in motion, what Lacan called *objet a*. In this case we can approximately compare this object to a never achieved state of full circularity or full harmony with the planet.

necessarily determine a picture of “circularity” and we can still speak of a “line” - a forward-moving regulatory train, policy after policy, silos by silos- rather than a common pattern across policy areas. However, despite considering these fractures in the discourse and the neutralisation of their “traumatic” potential into the dominant signification, I might wonder if there is anything left of that disruptive element that caused resistance in the first place. This counter-resisting role, that in the theoretical and methods chapter has been called “hystericizing”, can be attributed to the stakeholders in the field such as the EESC who actively lobbies the Commission, and to the researchers and activists that populate the unofficial policy landscape of the EU, such as those observed at the Postgrowth conference. These subjects, by keeping a certain understanding of *circular economy* in the agenda within a signification network in which it seems to have lost its traumatic potential, constitute forms of counter resistance that attempt to re-introduce or keep the element of defiance alive. For this purpose, they push signification beyond recycling, beyond ecodesign qua energy efficiency and resist the ever-expanding size of the loop by fighting against delocalisation and territorial dispersion of production and consumption.

The feeling of discursive struggle can be rendered by reporting an example from the unofficial policy landscape. At the Postgrowth conference (18-19/09/2018) during a session called “Technology, Sustainability and Growth, the Holy Trinity?” an ENGO representative asked the panel a quick question: “Circular Economy, friend or foe?”. The question was addressed specifically to José Belver,¹⁰³ FUHEM Ecosocial, and the answer that the economist gave was the following:

*I would say, if circular economy is **another new greenwashing concept** just to make us, create an illusion that we can continue to have infinite growth **then it's clearly a foe of course**. But if we're talking about the **articulation between industries** that....the Commission has been talking about that, this is important sure. But not only that. **But if we're talking also about the adjustment to the ecosystem cycle and using mostly biodegradable elements and materials then it might be a friend**. Also, together with **sufficiency targets of course** (José Belver, 18/09/2018).*

¹⁰³ Researcher at FUHEM Ecosocial, Member of the Transitions Forum and the Inclusive Economy Group Economist. The EU Commission representatives Paul Hodson, DG Energy, Energy Efficiency Unit and Doris Schroecker, DG Industrial Technologies, Research and Innovation, Head of Strategy Unit were also present at the panel.

This economist and researcher pointed to the fact that there is no such thing as “circular economy” but that depends on the dominant signifier to which it is anchored and put to work. If it is anchored to the infinite growth command, that the speaker above defines as “greenwashing”, then it is perhaps not a friend. It can be argued that it would be a friend of the industry rather than of the environment. On the other hand, if it is built along an alternative new signifying chain of ecosystem cycle and planet boundaries, of sufficiency, it can contribute to climate objectives.

Similarly, an EESC stakeholder interviewed counter-resists the metaphorical shift of *circular economy* qua recycling and explains what the implications of focusing on recycling are:

Recycling represents a loss of raw materials and a loss of energy [...]. For the first year the recycling industry would invite me to conferences [...] and I would say if the circular economy is successful this spells the end of your industry. And they would be - No no this is our new future, circular economy and recycling industry, perfect we're going to expand, get bigger (Interviewee 5, 30/10/2018).

Within this framework one might wonder whether the new advertised circular economy contribution to GHG emissions reductions needs to be further assessed. In fact, *circular economy* qua recycling does not mean that less of that material is produced in the first place. To better understand the difference, let's think for example of plastics in our everyday life. Would it be more beneficial to the environment in general to keep consuming plastics by assuming that they will be recycled, or would it be better to minimise their use in the first place? In the first scenario plastics would enter a secondary raw material facility, that is the industrial process that recycles plastics. In the second some plastics are avoided altogether.

Furthermore, it seems that thinking of recycling as the actual amount of material that is re-used is misleading. In fact, when we think of “recycling” we might instinctively think of what is re-used and what re-enters the productive cycle. In the extract below, the EESC interviewee explains that the recycling rate is calculated based on collection and not the actual re-use of materials as secondary raw material:

So, at the moment you have material being used in the economy [...] they're collected by waste management companies and they go to the waste management facility and when

*they arrive at the waste management facility there's a certain volume [...] and then they go through a sorting process within the facility [...]. When you come out of the end of the waste management facility the volume that comes in was this much (indicates, ed.) and then when you come out is this size (indicate a smaller size, ed.) you know because you've lost some, understandable, this the process. **This smaller amount is the valuable material that's available as secondary raw material for other industries to use. At the moment, recycling rates are measured across Europe mostly back here before they get sorted out.** Ok, so back at this stage they go... your recycling is this amount 10. But the reality is 10 in (indicates he/her country of origin Ed.) for example 10 tons arrive at facility but when we look at what is sorted out it's maybe 5 tons, you lose half. So, **the Member States understandably were fighting for their own interests saying currently according to the statistics our recycling rates are at for example 50% and we agreed to these targets of 65% because we can achieve that.** If we measured that here which is not the true measurement really what is being recycled. It's the measurement of what is being collected and so the argument was do we measure here, or do we measure here? if we measure further along [...] ok so they call it pre-sorting early stage and obviously afterwards post sorting measurement. Obviously suddenly all the Member States would have to remeasure, and their starting point would drop. They would go we're doing way worse than we thought we were doing **and then in truth we're doing way worse than we were pretending we were doing. Because pre-sorting figures are actually irrelevant, you know, they tell us something about the collection which is important a good collection. They don't tell you what you're contributing to post sorting in the second raw materials markets** (Interviewee 5, 30/10/2018).*

From this extract, we understand that a potential breakdown in representation occurs every time we associate *circular economy* with waste management. This can be explained by the way in which our knowledge of recycling rates is produced and by the meaning that lies behind that measurement, that is pre-sorting waste collection, as opposed to the post sorting recycling as secondary raw materials.¹⁰⁴

¹⁰⁴ In fact, the second communication on the circular economy cites: "To raise levels of high-quality recycling, improvements are needed in waste collection and sorting [...] The revised waste proposals will also address key issues relating to the calculation of recycling rates. This is essential to ensure comparable, high-quality statistics across the EU, and to simplify the current system and encourage higher rates of effective recycling for separately collected waste" (COM (2015) 614 final p. 9). At the end, the interviewee says that the process has moved further along, but it is not clear if, from the Member States, if this is going to be post sorting measurement.

More importantly, *circular economy* as recycling, regardless of how it is measured, does not automatically close the loop and depict circularity, as signification still gravitates around the end point of a product life cycle. In fact, although one might argue that in order to have recycling something must have been made recyclable in the first place, and that interventions on the design side are implicitly given, the EESC speaker explains how recycling in the concept of circular economy is peripheral. More importantly, very high recycling rates are still compatible with a linear economy (sic):

Back at the design, which is so important to create the transformation, the motivation for the waste management facility to be restructured, to become secondary raw material preparation facility. Not waste management. So, our own philosophy on circular economy is it's not about waste. At the moment the EU is achieving high standards on circular economy? Not really, it's achieving high standards on waste management [...] recycling is peripheral, you know it's not at the core of circular economy [...] more recycling is phase one. But then quickly you need to move to phase 2 which is beyond recycling, you know driven by eco design, to remanufacturing, to repairing, to reusing, not recycling. Especially for short shelf life goods recycling very quickly represents a degrading of the virgin raw material. You know, for aluminium coca cola cans in 2 weeks they go from being extracted to be on a shelf and even if you have 95% recycling rate you're losing 5% of the raw material every 2 weeks, very quickly your virgin raw material is depleting and it's still a linear model. So, this is an example of even 95% recycling rates still promoting the idea of a linear model. (Interviewee 5, 30/10/2018).¹⁰⁵

If *circular economy* as recycling is only a tiny peripheral part of *circular economy*, and if this is still compatible with the linear model, the core of circularity lies in its focus on the departure point of the circle, the ecodesign component. This is what defines the basis of a circular economy, perhaps because this is what makes the regenerative component possible. However, I have shown in section 6.5.5 that for now *ecodesign* is spoken and thus defined in the signification space of energy efficiency. In the following extract, the EESC the speaker spontaneously - with no intervention from the interviewer - resists the closure of this signification space by saying how energy efficiency is only one tiny part of ecodesign:

¹⁰⁵ See also "Circular economy research and innovation- Connecting economic and environmental gains" section "Closed-loop manufacturing systems, p. 16. This booklet aims to showcase how several areas of R&I policy are supporting the transition to a circular economy. But the disclaimer in the front-page states that this does not necessarily reflect the views of the EU Commission, but those of the authors (not listed).

*The Circular economy Action Plan, the vision identified a number of actions [...] and the Commission has this chart of what happened and what has not happened [...] like a spreadsheet and the ones that are achieved are green and 80% are green so it looks like they're delivering on everything. But the details is that, for example, one of the actions is ecodesign, developing Ecodesign working plan, they did it and again because this is a new communication and the working plan, it has to go through a process and again here [...] but the **ecodesign working plan only focus mostly focus on energy efficiency of products whereas for circular economy ecodesign needs to include tables and you know it needs to include everything eh** buildings, products [...] whereas the Commission's ecodesign focus is pretty much on making sure the product is energy efficient which is **one tiny part of ecodesign** (Interviewee 5, 30/10/2018).*

Finally, the EESC stakeholder below seems to counter-resist once again the globalisation push of *circular economy* by addressing the importance of its local dimension:

***So instead of a product being manufactured from component parts, from raw materials that are collected from all over the world, I mean that's our current model, I mean you collect all the raw materials, you don't pay people who are working in the mines properly to extract them, often slave labour comes into this, you get the materials from conflict areas. The phones are very great examples of it, you get the materials and then it's assembled in a factory somewhere and it goes back around the world to be packaged, and maybe back around to be rebranded as Sony, and then back around to be shipped to these different warehouses and then distributed. You know sometimes products go around the world 2 or 3 times before they come to me as a consumer at the end of it. Circular economy eliminates that ok? It takes the products that are currently in circulation and then it says we will promote business initiatives that can take these back.** And instead of being a waste management facility, it is a refurbishment facility, or it's a remanufacturing facility or it's taking apart products to get back to their valuable raw materials, which can only be done in an economically viable way if the ecodesign is implemented before that. And once it's implemented it gives encouragement to the bigger industries who have deposits around the world and different localities to say - Ok we will invest in eco design for our product. But then we don't want to lose the valuable materials so that it incentivises to have this new ownership model. When I finish with my phone Sony they will say - We take that back, please. To give you convenience we're going to a Sony take back centre in...where you live, and I can go - Here you go that's cheaper for me. Or get*

money back for it. And so, it will incentivize to have a local facility and people can work there disassembling, creating valuable secondary raw materials that actually have a value. So, in that sense that kind of implementation gives power and autonomy to smaller centres (Interviewee 5, 30/10/2018).

As said, the extract above resists the ever-expanding size of the loop by fighting against delocalisation and territorial dispersion of production and consumption. However, the efficacy of these hystericizing acts, whereby subjects “disturb” signification by challenging knowledge assumptions, can be ultimately hindered by the limits of the University/Capitalist social bond. This is in line again with the argument that the “hysteric” can function within a University discourse, as an activist/stakeholder civil society representatives in this case, but their efficacy is limited, within the boundaries allowed by that specific discourse (Fink, 1999, p.30).

In conclusion, this exercise has not been a critique of the circular economy per se: rather the critique is addressed as to how “circularity” is spoken by its actors in relation to delivering an ambitious climate mitigation action. After an initial phase of “resistance”, *circular economy* has been accepted into the EU’s policymaking and climate action more specifically through push and pulls across existing signifying chains and acquired a relative stability in signification. *Circular economy* could potentially entail an expansion of the narrow signification of the EU’s climate policy, beyond the climate + energy nexus and towards more holistic considerations of the chain of production and consumption interacting with the surrounding biophysical environment. However, it is still unconsciously spoken in the silos that define the regulatory technical subjectivity of the EU and is spoken at times as a standardisation practice through labelling, as recycling, as ecodesign/energy efficiency and as a big and fast vicious circle. This means that rather than being spoken as a new centre, a new anchor that would leverage a shift around which our socioeconomic and thus climate relationships have to be re-thought or re-organised, or a common pattern across policy areas, *circular economy* looks like another policy carriage in the hands of a couple of lead DGs that define the subjectivity of the EU qua regulatory train. This illusion of circularity is supported by the socio-symbolic constructions (fantasies) of standardising practice, recyclable products such as car batteries, ecodesign qua energy efficiency, new business models, faster loops and bigger loops that promise to cover the impossibility of discourse and provide instead a semblance of circularity. Hence, this phase of “acceptance” has unsurprisingly entailed a loss of the traumatic potential that the “circularity” metaphor

brought with it, to the extent that *circular economy* lost its very same peculiarity of “circularity”. More specifically, the apparent circularity is translated into a new loop, a circle of endless (dis)satisfaction in which the subject is trapped, which carries with it the painful pleasure of seemingly going more circular without actually being able to bring the real transformation and pursue the desired and required climate objectives.

At the same time elements of counter-resistance are present in the field. These try to re-introduce or keep the original disruptive force of *circular economy* alive and push signification beyond recycling, beyond ecodesign qua energy efficiency, beyond the ever-expanding geographical boundaries of trade, and these might ideally contribute to circular economy being a real discourse of change. However, these “hysteries” can function within a dominant university-social link, but their efficacy is affected by the law of the dominant social bond. At the same time, it is impossible to predict whether a different mode of working will characterise the new Commission in terms of the implementation of the circular economy, or whether more radical forms of resistance by stakeholders and activists will eventually manage to open an irreversible fracture in discourse.

6.8 Conclusion

This chapter has continued the investigation into EU’s climate mitigation action within the period of in-between-strategies in order to further reflect on the nature of the current climate transition and any possibility of shaking the foundation of the dominant discourse. This exercise has not been a critique of circular economy per se. Rather, the critique is addressed to how “circularity” is spoken by its actors in relation to delivering an ambitious climate mitigation programme. The chapter started by providing insight into the disruptive force that the metaphor of “circularity” carried with it. I argued that this metaphor might have expanded signification towards a holistic approach that considers issues of metabolism, regenerative character, complexity and interrelation. However, an immediate reference to “decoupling” resulted in the breakdown of this alternative representation.

Consequently, I re-traced the journey of the circular economy within the EU and started from an analysis of the signifier, the unfolding signifying chain and its effect on the speaking subjects. More to the point, I illustrated that *circular economy* is in principle recognised by the speakers as an important part of an effective climate action. I also argued that ideally *circular economy* could imply greater symbiosis and coordination of all EU policy DGs, a common pattern across policy areas, and would run against their reductionist and

bureaucratised approach to knowledge production that has been so far distinctive of the Commission. This is because it ideally requires a consideration of flows and how these interact with the surrounding biophysical environment. At the same time, I demonstrated how the initial perceived element of disturbance of “circularity” as opposed to the “line” has been gradually resisted through an actual withdrawal of the project because it would have necessitated discussing the reorganisation of our societal and economic relationships and how knowledge is produced and exchanged. I therefore maintained that the reintroduction of *circular economy* entailed a loss of the traumatic but liberating potential carried by “circularity”, which might have produced a real change. Today *circular economy* within the EU seems to be unsurprisingly co-opted in the University/Capitalist social bond of knowledge and of *jouissance* respectively.

Nevertheless, through the Lacanian subject of the enunciation, I illustrated that the discourse is fractured, and I observed the effects of *circular economy* on the subjects willing to bring an effective climate action to detect whether discursive ruptures still emerge. I investigated the idea of circularity of the EU in the “acceptance” phase and argued that, despite an ideal state of “circularity”, *circular economy* is still unconsciously spoken in the silos defining the EU as a regulatory technical subjectivity. This “siloeed” picture of the circular economy poses a serious discursive limit to the picturing of the circle. In short, rather than being signified as a new core principle around which our socioeconomic relationships have to be re-thought, or a common pattern across policy areas, *circular economy* looks like another policy carriage of the EU qua regulatory train. This policy carriage is supported by the fantasies of standardising practice, recycling role, ecodesign as energy efficiency, new business models that promise to cover the impossibility of discourse and gives us a semblance of becoming circular. Even in those cases in which it is possible to depict a circle via the core issue of design, it resembles more an endless loop that must run fast and big to be able to cover the growing demand of goods. Therefore, the circle depicted resembles more a loop of that painful (dis)satisfaction carried by the impossibility of the discourse. Starting from this impossibility, by introducing few potentially disruptive elements I emphasised how the subject is caught in his/her discourse which betrays a sense of doubt over pursuing the desired transformation of circularity and the required climate objectives.

An important element of counter-resistance to this co-option is attributed to stakeholders such as the EESC or can be found in the unofficial policy landscape such as the Postgrowth conference, which seem to keep the element of defiance visible. These subjects indeed

expand *circular economy* signification beyond recycling, beyond energy efficiency, beyond the ever-expanding geographical boundaries. It should also be considered that the efficacy of these “hysterical interventions” can be hindered by the laws of the dominant social bond. Finally, it is impossible to predict whether a different mode of working will characterise the new Commission, if other stronger forms of resistance will eventually manage to open an irreversible and painful and liberating fracture in the discourse and how the *circular economy* will eventually be implemented. The next chapter will draw the conclusions of this project and will place a special emphasis on its relevance for future research.

Chapter 7. Conclusions

7.1 Summary and discussion of the findings

This project has contributed to knowledge by developing a framework for understanding the new EU's climate policymaking in a period that corresponds to the finalisation of the 2030 Clean energy package and the launch of the 2050 long-term decarbonisation strategy. The period under observation has been referred throughout this work as the moment "in between strategies". This has allowed me to emphasise the transitional aspect that this policymaking should bring about in the achievement of its climate objectives, in line with the Paris Agreement commitments. This concluding chapter sums up the project's main arguments, discusses their relevance in the field of global environmental politics and makes suggestions for future research.

Based on Lacan's theory of discourse, this project opened a seemingly closed discourse so as to reflect on the nature of the current EU's climate transition and ideally on any possibility of disrupting the hegemonic discourse and deliver change. In this regard, the choice of first *energy efficiency* and *renewables*, and then *circular economy* is emblematic in that these play a vital role in the 2030 Clean energy package and in the 2050 long-term decarbonization strategy. These are all desirable solutions, in that no one would argue against having equipment or devices that consume less energy, use renewable energy or are re-manufactured. However, we cannot think of *energy efficiency* or *renewables* or *circular economy* as a presupposition of sense that automatically delivers the desired emissions reductions, in line with climate science. Thus, I did not conduct a critique of energy efficiency or renewables or circular economy per se. Rather, by starting from an analysis of the unfolding signifying chain and its effect on the speaking subjects, I empirically detected how *energy efficiency*, *renewables* and *circular economy* are spoken by its actors and thus what becoming efficient, renewable and circular means for the EU in relation to delivering an ambitious climate change mitigation. The main conclusion is that the current EU's climate mitigation action appears less a real transition than an apparent and fictitious change and can be understood with the following attributes, where each aspect builds on the previous one.

a) The commanded knowledge

One of the main lines of investigation of this thesis concerned the type of knowledge underpinning the EU's climate mitigation action. In this respect, I illustrated how climate change knowledge is heralded by policymakers as the ultimate authority and as evidence-based. Accordingly, a whole knowledge apparatus is mobilised and expressed through

apparently rational and objective signifiers such as “quantitative data”, “analytical recommendations” which set the overall direction to climate mitigation action. However, these calculations and quantifications express a more complex relationship between climate change and knowledge. Although this acknowledgement of the non-neutrality role of science in policymaking is in line with previous studies (see 2.3), such as Litfin’s research into ozone discourses (1994), my focus in this case is on the spoken and mobilised “measurement”, “quantification” and “rationalisation” attributes of such knowledge. This way the EU emerges as a as a facilitator of a quantifiable and rationalised knowledge and as a technical and regulatory subjectivity which is mutually reinforced by a horizontal and vertical bureaucratic organisation of work across policy sectors. This emerges strikingly when speaking for example of climate mitigation “objects”, such as energy efficiency or renewables, that are immediately spoken and thus defined in terms of targets and measurement.

As a result, thinking beyond this allegedly objective, quantified, bureaucratized knowledge becomes impossible, in that the EU puts climate knowledge to work with the signifiers available to them and this overarching structure is so powerful that any alternative form of thinking that deviates from measurement, rationalisation, bureaucratisation and valorisation is discarded. The most emblematic case illustrated in this project is perhaps that of the circular economy. *Circular economy* was at first resisted from within the Commission by DG Clima and DG Energy which usually deal with climate policy in modelling terms, due to the difficulty in translating it into a quantified element, modelling in that case, which governs our societal relations. Furthermore, in the circular economy case study, I illustrated that although *circular economy* could be a common theme across policy sectors and more streamlining across policy DGs is advocated, *circular economy* is still spoken in the silos that define the regulatory and technical subjectivity of the EU, to the point that this poses a discursive limit to picturing the “circle”. Finally, its reintroduction after the initial resistance phase has entailed a loss of its traumatic potential and its valorisation into the dominant status quo discourse of competitiveness and growth.

Hence, the debate here is not on the deliberate politicised, or economised, I might say, role of climate science but on what I called the “disavowal” of the performative and political dimension of a knowledge that insidiously looks factual (Žižek, 2004, p.394). In this regard, I emphasised how this element of disavowal is constantly at play. For example, by introducing a defying element such as “imposing” any collective change of behaviour for

the sake of climate goals, a sort of intolerance for a “command” emerged and authoritarianism was evoked (5.2.2). In fact, it appears that the resistance towards any tougher approach for the sake of climate goals in the name of freedom and democracy hides in fact a disavowed command, which emerged during interviews and events in the alleged factual role accorded to the “consumer”. This in fact suggests that we are subjected to orders but, as it is often spoken as factual and referred to as “real world constraints” (Interviewee 8, 14/11/2018) or “real life” (Interviewee 4, 12/10/2018), this form of order remains unquestioned. As result, climate change *mitigation* is spoken and welcomed as a discourse of neutral quantifiable and objective knowledge. However, this knowledge is in fact commanded by an authority that sets the direction of discourse qua social bond and regulates our intersubjective societal and climate relations. This imperative constitutes the real anchoring point of representation and therefore the logic limit of signification, and the boundary of the discourse. For example, this logic boundary can be understood when references to the “growing competitiveness” of the EU are made more explicit, in that it is plausible to assume that those mitigation policies that will not increase the EU competitiveness would be automatically excluded and thus delimit policy options (see Chapter 2 discussion on discursive approaches). In turn, competitiveness would point to another signification chain of accumulation and ultimately economic growth that still constitute the anchoring point of our social order, as it is explicit in the long-term strategy Communication (COM (2018) 773 final).

For this reason, the (disavowed) anchoring point that Lacan called the Master Signifier, is what confers apparent meaning stability to the signifying chain and to all related discursive practices governing policymaking, and is what gives us the illusion of the real life (see 5.2.2). At the same time, this anchor is what makes the social bond possible, that element which decrees our existence as social beings. More importantly, this anchor of representation and this element of disavowal in climate knowledge have some interesting practical implications in terms of climate policy, in that these result in a rationalised and reductionist conceptualisation of “climate change” and “climate change mitigation knowledge”, as embodied by energy efficiency, renewables and circular economy.

b) The fractures in discourse as an effect of the subject of the enunciation

Climate change and *mitigation* are spoken and acquire meaning stability within this logic boundary of commanded knowledge. More specifically, this anchoring point enables the juxtaposition of climate action with energy transition via the emphasis on the untouchable

role of the subject-consumer in a low carbon future and the so-called clean energy transition. Moreover, this climate action as energy transition recently joined by *circular economy* as a policy carriage, does not happen per se, but it should happen in function of the modernisation and competitiveness of the EU economy and industry. This way the constitution of the climate action-energy transition appears to be a new version of the old sustainable development narratives. These have characterised the climate debate over the last 30 years (inaugurated by the report of “Our common future”, the Brundtland report, 1987) and have previously been studied under the lens of ecological modernisation (see Hajer, 1995). In this respect we can identify sustainable development narratives as the by-product of a social link driven by an allegedly neutral knowledge which is in fact commanded by the disavowed command of competitiveness accumulation and ultimate growth. However, despite the apparent stability and intelligibility of reality we do not think of discourse as a closed-structure, as due to the intervention of the subject of the enunciation produced by language as surplus of sense, it is open and fractured.

Precisely, from the desiring position of having an effective climate policy and in the pursuit of achieving climate mitigation as a form of ideal and ultimate enjoyment, the EU mobilises its knowledge apparatus expressed by the signifiers available to them as presupposition of sense. Indeed, the subjects observed and interviewed are split between the linguistic structures defining them and organising their climate relationships and the desire to come up with effective climate action and carry the ultimate transition, as they speak of a “system change”, of a “new society” (Interviewee 9, 16/11/2018). In this leftover between what the subject wants to say and what the subject says, lies that “lack” that sets desire in motion, what Lacan called *objet a*. This can be approximately compared to a never-achieved state of wholeness characterised by a harmonious, prosperous, safe planet, by infinite energy supply, by efficient and infinite clean resources and by perfect circularity. This is rendered visible in the inconsistencies, gaps and blind spots that embody the residue of signification between the enunciated fact and the enunciating act.

Consequently, I investigated the nonsensical character of the signifiers that are the carriers of this transition. “Nonsensical” in this case does not refer to the fact that there is no climate change to mitigate, no GHG emissions to curb, no renewable energy, or no circularity to implement, but that in the way they are spoken in the enunciation they reveal each time their partial, never achieved character. For instance, I illustrated that *climate change* as a biophysical phenomenon being signified in terms of energy policy, as reflected in the

division of work of the lead DG Clima and DG Energy, entails a “closure” of the signification space that excludes wider considerations about biodiversity loss, ecosystem damage, pollution and the planet in its wider understanding. This residue of signification within the climate + energy nexus is however called into question by the wider and perhaps more progressive stance of DG Environment who tries to keep signification open to all the other environmental aspects and warn about those political solutions that can have other disastrous environmental consequences. As a result, *climate change mitigation* takes shape as a socio-political reality in the narrower signification space of climate + energy and the same partial and inconsistent character can be highlighted in the case of *mitigation* whose meaning is perhaps dependent on its institutional character and the silos’ signification spaces. These signification spaces are in turn an expression of the bureaucratisation of knowledge and organisation of work. For example, the discussion around what defines *mitigation* and what does not that emerged spontaneously within DG Energy (5.3.2), created some contradictions as to whether the meaning of mitigation should include renewables as well. I perceived that the distinction between *mitigation* and *renewables* originated in the speaker’s association with “targets”, which links back to the pattern of quantification and rationalisation that characterises the climate action social bond. In the empirical section, I illustrated that the speaker perceived *emissions reductions* and *renewables* as two different entities because they correspond to two different targets and he/she associated *mitigation* with the first target (emissions reductions) but “not so much” (Interviewee 6, 7/11/2018) with the other target (renewables). Moreover, as the interview went along, the meaning of *mitigation* became dependent on its institutional character, “all the activities linked to DG Clima” (Interviewee 6, 7/11/2018) which demonstrated how the “silos” approach to climate knowledge constantly returns in speech. This initial “target” distinction was rendered more inconsistent as the speaker contradicted him/herself by saying that GHG reductions (thus his/her mitigation) from that specific DG Energy unit’s point of view is Renewables and CCS. Thus, whereas at the beginning of the conversation *renewables* was “not so much mitigation”, by the end of the conversation *renewables* became “a sub-part of mitigation” (Interviewee 6, 7/11/2018).

The exercise of opening a seemingly closed discourse allowed me to zoom in on the mobilised climate knowledge. The extracts from participant observations and interviews have illustrated that each signifier individually, whether *energy efficiency*, *renewables* or *circular economy* cannot confer the meaning that the entire chain offers, but are signified at different times of enunciations in different forms and shapes and full meaning is always

deferred. For example, *energy efficiency* and *renewables* are spoken as metaphors for legislative acts, as equations, as technologies and as economic savings in the case of *energy efficiency*, or as a technology rather than an energy source (or sometimes both) in the case of *renewables* (see 5.4). *Circular economy* as well is spoken in different forms and shapes at different times of the enunciation. The examples reported point to *circular economy* being a newly found climate policy that was previously associated only to resource scarcity. Within this new association, it was spoken as standards product labels, as better waste management, as ecodesign qua energy efficiency, as big and fast loops dealing with an increased demand of goods and as a new business model substituting the tangible character of the good with the intangible character of the “service” (see 6.5 and 6.6).

The argument I have made throughout the project is that opening and juxtaposing all the possible understandings, which are not necessarily consistent with each other, does not reveal any hidden meaning and establish an absolute truth as to what *energy efficiency*, *renewables* or *circular economy* is. Rather, *energy efficiency*, *renewables* and *circular economy* are all that is being spoken, including the inconsistencies and gaps that arise, because it is these inconsistencies that embody the ontological surplus-loss of signification. At the same time, these objects of identification that should deliver the transition are the quintessence of the knowledge qua quantifiable rationalised, bureaucratised, reductionist entity at work. Most notably, in the case of *circular economy* I emphasised how this is still unconsciously spoken in the reductionist bureaucratised, terms that define the technical and regulatory subjectivity of the EU, to the extent that this poses a discursive limit to the very same depiction of “circularity”. In this respect *circular economy* reductively seems only another policy carriage of the EU qua regulatory train rather than a common pattern across policy areas or a new centre around which our socioeconomic relationships must be rethought.

More importantly, despite the impossibility of discourse, by resorting to *energy efficiency*, *renewables* and *circular economy* as a presupposition of sense, as what needs to be done to deliver emissions reductions, we establish, understand and maintain our socio-political climate relationships between policymakers, stakeholders and citizens. In fact, we should not forget that discourse and subject mutually presuppose each other. The real subject presupposes symbolization (language) to create sense and, more widely, to establish and maintain these societal climate relations. At the same time, discourse presupposes a real speaking subject to be established and maintained (3.2.3). Accordingly, these subjectivities

set their climate targets, formulate their impact assessment and cost-benefit analysis, run official and unofficial consultations, engage with modelling activities, configure scenarios, release official policy documents, fund technology innovation and research and enact smart consumption. Indeed, the subjectivities involved in the climate social bond are not solely the EU bureaucrats caught in their chain of consensus-seeking and technical-regulatory practices. They can also be the stakeholder negotiating their targets with the policymakers, but also the new green jobs' graduates, as well as all the new citizens-consumers placed at the heart of this transition engaging with their smart consumption practices in a flexible decentralised smart energy market.

c) Dealing with the surplus of sense, *jouissance* and the role of fantasies

Overall, I have shown that this excess, residue of signification can either disrupt signification and produce alternative significations, and thus change, or can be positively integrated into signification as commodified knowledge or as consumption objects. In this regard, I provided examples of how the traumatic points of the discourse are integrated into the status quo signification as commodified knowledge or objects. Precisely, I illustrated how in some cases a split between personal considerations and the EU representative from which they speak emerged. In those cases the subject seems to be aware that their discourse is full of fractures and points in which representation breaks down, but there is an attempt to disavow personal considerations and embrace and turn these discursive holes in a positive feature, to the point that these are no longer perceived as conflictual. For example, the so called "rebound effect" as a side effect of energy efficiency measures was initially denied by the IEA and then turned into something positive and commodifiable good for growth (see 5.5.2). Another example has been cited in the case when a DG Grow representative did not perceive having both a growing electric car industry and a secondary circular market of batteries as conflictual, in that according to the speaker's logic we can have both a growing electric car industry and some circularity of batteries (6.6.8). Hence in these cases, representatives are supported by socio symbolic constructions, which Lacan called "fantasy", that promise to cover the impossibility of discourse. These representatives are thus caught in a closed circuit of commodities that provide instead a semblance of efficiency and circularity where we have commodified knowledge formalised by pieces of modelling, or consumption objects such as a set amount of electric cars (see 5.4.4).

In turn, the impossibility of the discourse results in a constant and illusionary sense of plenitude, a paradoxical sense of (dis)satisfaction that Lacan called *jouissance* (see 3.2.4).

This *jouissance* emerged every time the signifying chain of efficient buildings, efficient heating and cooling systems, efficient cars, more sophisticated modelling, more renewable technologies, better standardisation, better waste management, new business models, better bureaucratic organisation and coordination, is deployed. As it has been illustrated in depth in the analysis chapters, they do not seem to attain the ultimate full enjoyment of a real efficient, renewable or circular change and thus the achievement of the desired climate objectives is endlessly deferred.

As a result, the summary provided so far justifies the initial argument in which I stated the acclaimed climate action qua energy transition appears to be an illusionary or fictitious change, a redistribution of tasks within the same old social bond, under the authority of a more “efficient”, “renewable” and “circular” Master. For this reason, I concluded that the EU’s climate mitigation action appears to be the formalisation of Lacan’s University discourse and its complementary Capitalist discourse (see 3.3). The reason for that lies in the emphasis on a (commanded) knowledge and for the fallacious sense of (dis)satisfaction and plenitude (*jouissance*) associated with it, sustained by the integration into the dominant signification of its traumatic points. These traumatic points however do not disappear, this is why discourse is ever partial and inconsistent. However, by being turned into commodified knowledge or objects, the possibility of experiencing their disruptive force is limited. This in turn ultimately hinders the possibility of bringing real change.

d) Counter-resistance and defiance

On the one hand it should be clear that changes in language and thus changes in discourse do not happen overnight. For example, I demonstrated that simply introducing a new signifier such as *circular economy* into a dominant signifying chain does not result in a sudden subversion of the status quo social bond altogether and does not produce new significations constituting new climate relationships. However, the Lacanian approach that I adopted has enabled us to understand where fractures in the discourse are located. This approach made it possible to identify how resistant forces are constrained but do not disappear. This means that we do not have to conclude or assume, for example, that *circular economy* is only another ecological modernisation or sustainable development idea tout court. As these traumatic points persist, a final aspect of my analysis is preoccupied with the detection of those forces that overtly introduce disruptive elements, challenge a given hegemonic knowledge, and attempt to bring a real discourse of transformation, what I call an “hystericizing” effect, as informed by Lacan’s terminology (see 3.3).

A hystericizing role has been attributed to the stakeholders in the field such as the EESC who actively lobby the Commission, and to the researchers and activists that populate the unofficial landscape of the EU, such as those observed at the Postgrowth conference. For example, I emphasised how in the case of the Postgrowth Conference some scientists posed an epistemological question as to what constitutes evidence-based knowledge and challenged the reductionist, rationalised and instrumental use of science as formalised in mathematization qua modelling and technologization. Conversely, they contrasted it with a more authentic scientific enquiry that needs to think in complex systems to gain a comprehensive understanding of the real.

Applied to the case studies addressed in this chapter, issues of “energy savings”, efficiency and rebound effect have been openly called into question by *energy volume*, *sufficiency*, *planetary boundaries*, which might contribute to the creation of new alternative significations and new subjectivities other than the worker-consumer. Moreover, in the case of *energy efficiency* the traumatic points can be integrated successfully into signification and this can occur via the appraisal of something like the rebound effect as these “energy savings” are re-invested in the market. However, I argued instead that the case of renewables exposes subjects to the fractures of the discourse more explicitly to the point of questioning the very same mass transition to renewable energy, because of the source intermittency (thus natural capacity), the technicality of the grids (renewable as technology), storage scaling and the final amount of electricity usage available to users.

Finally, the case of the circular economy is interesting as it is the case of a defying element from within the EU’s policymaking that has managed to shake the foundation of discourse, although for a limited period. Indeed, unlike *energy efficiency* which can be regarded as the by-product of the University discourse of “knowledge at work” (see Chapter 5), *circular economy* originally draws on an alternative and old circularity philosophy and metaphor of complexity, metabolism and interrelation. For this reason, this circle metaphor is antithetical to the “line” metaphor that has characterised our way of exploiting natural resources, and of organising our economy. Perhaps more importantly, this circle metaphor seemed to stand in opposition to those ways of knowing that fail to grasp this system complexity, with its reference to “metabolism” and “interrelation”. One of the main arguments was that the circular economy signification ideally forces us to consider the bigger picture of all material and organic flows and how these interact with the surrounding biophysical environment.

Circular economy could potentially entail a common pattern across policy areas, greater symbiosis among policy DGs. It would also imply an expansion of the narrow signification spaces that reflect the linear and reductionist and bureaucratised knowledge of the EU's climate policy. For this reason, I emphasised how *circular economy* was at first resisted to the point of being withdrawn, as it was perceived as a disruptive element in signification, perhaps because it pointed to ideally rethinking the economy as a cycle. This subversive idea in turn can potentially introduce an idea of limit, pace, size to the business as usual logic, and to the way "knowledge" is produced and exchanged within the EU, for example by modelling. Eventually, as I stated in the previous section, *circular economy* has been accepted into the EU's policymaking and climate action more specifically, that is the climate action + energy transition nexus, but in a co-opted version which has entailed a loss of the traumatic potential that the "circularity" metaphor brought with it.

Hence, within this co-opted framework, I therefore emphasised the role of some subjects such as the EESC, who were able to keep the hystericizing element visible and keep a certain understanding of circular economy by pushing signification beyond its most limited interpretation, which is "recycling". Indeed, I illustrated through these subjects that recycling does not mean that less material is produced in the first place, nor that the amount "recycled" is the actual material that is re-used, and which re-enters the productive cycle. This is due to the way in which the recycling rate knowledge is produced which equates with pre-sorting waste collection, rather than with the secondary raw materials that are actually obtained. Moreover, regardless of how it is measured, *circular economy* qua recycling does not automatically depict a closed loop and circularity: although we can claim that to be able to recycle something this must be a recyclable product in the first place, even very high recycling rates are compatible with a linear economic model. It appears therefore, that these hysteric subjects are pushing signification beyond the periphery of recycling towards the core of ecodesign perhaps because this is what makes the regenerative component possible. Furthermore, they are at the same time challenging the narrow signification of ecodesign as energy efficiency. Finally, more circularity does not necessarily mean an economy that goes at a slower pace, that flows slower than a linear one, or that respects the time necessary for "regeneration" within an ecosystem. Thus, hysteric subjects such as the EESC "disturb" signification against a circle that is ever expanding in size and becoming more geographically dispersed and delocalised, and this ideally contributes to *circular economy* being a real discourse of change. At the same time, these "hysteries" can function within a dominant university-social link as scientists, as academics, as activists but their efficacy is

affected by the law of the dominant social bond. In fact, in this current phase of policymaking, every traumatic encounter with the lack as disruptive force is resisted, minimised and downplayed. This aspect was shown with events such as the Postgrowth conference: although it was organised by parliamentary groups and involved the participation of the Commission, its relevance in the policymaking was downplayed and minimised by the Commission. Similarly, it was demonstrated by the first withdrawal and then co-option of the circular economy project.

7.2 Discussion of the findings in terms of their contribution to environmental politics

If the previous sections have summed up the main arguments for providing a better understanding of the EU's climate mitigation action in the period in between strategies, this section discusses the findings in terms of their broader application in the field of environmental politics. Some conclusions can now be drawn by linking back to some of the preliminary considerations made in the literature review in Chapter 2. As illustrated throughout this work, this project has taken climate change mitigation as an anchoring point of reflection and focused on "how" the very concept of the "EU's climate mitigation" is thought and constituted from a reflexive and qualitative perspective.

On a preliminary note, this project specifically contributes to the social constructivist and poststructuralist strands in the wider IR-GEP discipline for the way in which it acknowledges the construction and constitution of the social and thus climate policy world by emphasising the centrality of language. The discursive approach adopted has enabled me to study climate change in a non-reductionist way and take into account the complexity of actors and institutions that populate the EU's climate policy landscape, such as EU representatives as well as a variety of stakeholders, scientists and academics. Indeed, by focusing on "discourse" I illustrated that a given policy outcome, such as the Energy Efficiency Directive (2012/27/EU, (EU) 2018/2002), or the Renewable Energy Directive (2009/28/EC, 2018/2001/EU) or the Circular Economy package, which is usually the focus of problem solving approaches (see 2.2), is considered as a discursive and material implication of a given discourse, an example of how language is ingrained in practices. From this perspective, this project is in line with previous Foucauldian approaches that stress the socio-cultural meaning structures, most notably with regard to its emphasis on the discursive attributes of power-knowledge relationships. These are expressed in this project as the commanded climate mitigation knowledge, in which, however, I emphasised the element of disavowal concerning the real authority of the social bond.

At the same time, the Lacanian discursive approach that I adopted departs from these Foucauldian ones for the following reasons. First, it does not focus on competing discourses and their counter-discourses as full, achieved “storylines” (Hajer, 1995; Leipold et al., 2019, p. 457). More precisely, it does not consider energy efficiency, renewables or circular economy as “discourses”, but as the formalisation of discourse qua social link, that is, an overarching socio-linguistic structure that makes it possible to establish, define and maintain our societal and thus climate relationships. Therefore, with a greater emphasis on signification and on the “micro” of the signifier as the unit of analysis, I focused on the partial and never achieved character of the signifier and highlighted how full meaning is always deferred across the signifying chain, and consequently in discourse. This way, if I wanted to keep the metaphor of the “storyline”, it would be more accurate to say that each spoken signifier at different times of the enunciation, whether *efficiency*, *renewables*, *circular economy* or *mitigation*, gives origin to different always partial storylines of “mitigation”, of “energy efficiency”, of “circular economy” as illustrated in the previous sections. Moreover, these storylines are not “competing” but coexist, together with their inconsistencies, in giving meaning to the signifier as a result of the surplus-loss of signification produced by the speaking subject during the enunciation.

In this respect, my argument has been developed in a more radical way compared to that of Hajer and Veerstag (2005). They argue that while actors debate something like “nature” or “climate change” in shared terms, by using storylines with the assumption of mutual understandings, this does not mean that they understand each other. Moreover they claim that even if actors share a given storyline this can be interpreted differently, so misunderstanding can be functional, and a focus on discourse helps us to understand how different actors actively attempt to influence the definition of an issue by imposing a given frame and by actively positioning themselves drawing on discursive categories in creating a coalition (Hajer, 1995). It is true that in my approach the misunderstanding and ambiguity aspects are key, in that the subjects speak of mitigation, efficiency, renewables and circular economy as a presupposition of sense, that is in (assumed) shared terms, and that each signifier takes different forms and shapes in the enunciation. However, what I have emphasised is the unintended effect of the enunciation via the signifier, that is the Lacanian subject produced by language as surplus of sense, rather than a deliberate and active attempt to build a “narrative” or a “storyline” of energy efficiency, of renewables or circular economy. For example, the detailed discussion supported by extracts from interviews on the

“non sensical” character of *mitigation* in 5.3.2 is emblematic. These inconsistencies or continuous misunderstandings are explained as the effect of the signifier on the speaking subject through a theoretical approach, namely a Lacanian approach, that emphasises the paradox and ontological ambiguity of language. Therefore, by saying that the socio-linguistic order can never wholly complete the speaking subject, I do not emphasise an essence of the individual psyche, but a constitutive lack. By taking this approach, I do not risk collapsing the social level to the individual level, because this relationship between discourse and subject is explained with the subject continuously filling this lack through social discursive representations, climate objects in this case, which provide them with a relatively stable identity (Stavrakakis, 1999, pp. 28-36). With this in mind, I illustrated how EU representatives resort to the signifying machine that defines them and allows them to establish their climate relationship between policymakers, stakeholders, citizens. As a result, the subjectivities produced are differently “split” between those who are convinced by discourse, those who acknowledge its breaking points but attempt to disavow these so that they are not perceived as conflictual, and those that overtly challenge the status quo knowledge, what I called the “hysterics” in the field.

Therefore, for its emphasis on the signifier as the structural element, on the speaking subject as a form of agency and on its effects, that is the produced surplus of meaning, this approach retains a more resistant subject than those Foucauldian approaches where subject is totally subjugated to power (Bracher and Alcorn, 1994, pp. 29-35; Epstein, 2011, p. 338; see also Butler, 1997; Adler 1997). Concluding that this subject is “more resistant” must not mislead us into believing that the agent is unconstrained and more or less able to act influencing the processes and structures, or as Klepec put it “more or less dispersed individuals able to make decisions and free choices” (Klepec, 2015, p. 116). Indeed, from the analysis of the potentially transformative forces in the field, which as I argued are at the moment resisted, minimised and downplayed, these hysterics can function within the dominant status quo social link but their efficacy is affected by the law of the dominant social bond, the University/Capitalist discourse. At the same time, by virtue of a more active subject, whose role can be understood by looking at how this constitutive lack is handled, i.e. by its successful integration into signification or by the disruption of the dominant signification, we can better understand factors of stability, rupture and change. Indeed, in the case of this project it has helped distinguish between an apparent fictitious change and real “change”, which would be difficult to explain by referring to a subject that is purely “structural” and

purely subjugated to power. The final section of this chapter and of the project makes suggestions on how the insights provided in this study can contribute to further research.

7.3 Suggestions for future research

This section makes suggestions for how my insights can help understand the further development of climate mitigation and potentially how they can help in other issues areas in environmental politics and IR more generally.

First, this project has zoomed in on climate policy objects such as energy efficiency, renewables and circular economy on the grounds that these policy tools are in principle desirable. However, I illustrated that they can hide a more insidious nature depending on the anchor of representation that fixes its relative ambiguity and naturalises its meaning. Hence, further studies could expand on other climate policy projects that have recently reappeared in the EU's policymaking scene. For example, the case of Carbon Capture Storage (CCS), is interesting because its project had fallen flat due to controversies regarding its social acceptance, technology feasibility and potential geophysical consequences. Yet, it has resurfaced again and is hailed as a necessary solution for energy intensive industries in the long-term strategy (COM (2018) 773 final p. 15) and perhaps turned into a newer and softer variation, named Carbon Capture and Utilisation (CCU) (COM (2018) 773 final p. 12). The latter refers to those processes by which CO₂ is captured and converted and thus re-used and re-emitted into a new product, assumingly with negligible mitigating effects. Hence, further empirical studies could study the role of *jouissance* and fantasies associated to the concept of CCS and CCU in order to understand empirically through the speaking subjects why it is today back in the policy climate mitigation scene.

Moreover, on the 11th of December 2019, one year after the long-term decarbonisation strategy was launched, the Commission released another Communication that is known today as the EU Green deal (COM (2019) 640 final). A quick look at the EU Green deal communication suggests that it is built in line with previous climate policy documents. However, an expansion of signification associating climate change with biodiversity loss seems to emerge (COM (2019) 640 final p.2). Consequently, further investigation could address how the work towards the implementation of the long-term strategy will continue and investigate what the implications for this "environmentalisation" of climate policies are. More to the point, this means what the climate policy implications might be if the climate + energy nexus is expanded to include issues of biodiversity.

In relation to the policy landscape taken into consideration in this project, in my dissertation I focused on the EU institutional level, because climate commitments are taken by the EU as a whole (see Chapter 4). Thus, I privileged those sites of observations in which the EU participates and negotiates and maintained a focus on EU institutional policy aspects. However, this project acknowledges that when thinking of the EU's climate policymaking we cannot leave international climate negotiations out of consideration (4.2). In fact, the EU's climate mitigation action as an object of study can be contextualised at the crossroads between an institutional and an international process that mutually shape each other along a continuum in which the Paris Agreement as well as the EU regulatory frameworks represent intermediate guidelines or reference points. As a result, integrating the insights developed in this project with studies on climate diplomacy and international negotiations in general could be useful for investigating the type of subjectivity that arises in the realm of international diplomacy when defining climate mitigation action. This might be especially useful when we consider the signifier *mitigation* in a context of international negotiations alongside issues of climate change adaptation, finance, technology transfer and capacity building, which concern developing and least developed countries, and which are put to work in a circle of a very sophisticated procedural machine that is the UNFCCC process.

At the same time, considering that what is decided at the EU institutional level is implemented across Member States, perhaps unevenly and inconsistently, further research can also be applied to Member states or groups of Member states in their implementation of the climate regulatory framework. This suggestion becomes more imperative with the entry into force of the 2030 Clean Energy Package. While this project has followed the finalisation of this strategy, the study could be further expanded in quantitative terms in order to identify efforts and compliance with the increased emission reduction targets being set. On the other hand, in line with the reflective and qualitative approach adopted in this project, further research could also explore whether new climate mitigation fractures are produced at the Member States level, if new forms of *jouissance* arise, if new fantasy constructions originate or if new alternative significations and potentially new subjectivities arise from any climate virtuous countries.

Finally, at the time of writing this thesis, the EU, as well as the rest of the world, is facing a global pandemic caused by the virus COVID-19, which forced heads of state and governments to impose different forms of social and economic lockdown in their states. The spread of this virus has spurred ethical dilemmas over saving lives versus saving the

economy handled differently depending on the state. These temporary lockdowns, which obliged us to halt most of our anthropogenic activities and change our lifestyle, could be beneficial to the climate and the environment. In this respect, a temporary reduction in pollution and in CO₂ emissions has already been observed and reported, although reductions do not mean less CO₂ concentration in the atmosphere, as this keeps building up (MetOffice 2020). The start of the pandemic is also linked to a wet market in Wuhan (China) which might have facilitated the virus cross-species transmissions, and this spurs questions about the constant intrusion of humans into wildlife habitats. Hence, from a Lacanian perspective and perhaps from a mere theoretical speculation, the advent of the virus, which is itself the consequence of human induced environmental degradation, can be the ultimate “hystericizing” element. Indeed, it carries a true liberating and traumatic force, for its economic and social consequences, capable of opening a painful and irreversible fracture in discourse. For this reason, it could potentially be an effective ally of climate and environment policies capable of establishing alternative significations, different societal relations and thus new subjectivities. As a result, further research might be developed in the months to come to assess the unfolding of the signifying chain and its effect on the policymaking speaking subjects in the aftermath of the pandemic. For example it could look at the way in which the “pandemic experience” will or will not be embedded in the development of the EU’s climate long-term plans and if any traces of a real rather than a fictitious discourse of change can be detected.

Bibliography

- Adler, E. (1997) "Seizing the Middle Ground: Constructivism in World Politics". *European Journal of International Relations*, 3(3), 319–363.
- Adler, E. (2002) "Constructivism and International Relations" in W. Carlsnaes, T. Risse and B.A. Simmons, eds. *Handbook of International Relations*. London: Sage Publications, pp. 95–118.
- Atkinson, P. (2002) "The life story interview" in J. F. Gubrium & J. A. Holstein (Eds.), *Handbook of interview research: Context and method*. Thousand Oaks, CA: Sage, pp. 121–141.
- Audet, R. (2016) "Transition as discourse". *International Journal of Sustainable Development*, 19(4), pp. 365–382.
- Bäckstrand, K and Lövbrand, E. (2007) "Climate Governance Beyond 2012: Competing Discourses of Green Governmentality, Ecological Modernization and Civic Environmentalism in M. Pettenger, (2007) *The social construction of climate change*. 1st ed. Aldershot, Hampshire, England: Ashgate, pp. 123-147.
- Beck, U. (1995) *Ecological politics in an age of risk*. Cambridge, UK: Polity Press.
- Berg, B.L, and Lune, H. (2014) *Qualitative research methods for the social sciences*. Harlow, Essex, England: Pearson Education Limited.
- Bernstein, S. (2001) *The Compromise of Liberal Environmentalism*. New York: Colombia University Press.
- Bettini, G. (2019) "And Yet It Moves! (Climate) Migration as Symptom in the Anthropocene". *Mobilities*. 14, 3, p. 336-350.
- Boni, L. (2014) "Formalisation and context: some elements of a materialist reading of Lacan's 'four discourses'" in I. Parker and D. Pavón-Cuéllar (eds.) *Lacan, discourse, event: new psychoanalytic approaches to textual indeterminacy*. London and New York: Routledge, pp. 128-139.

- Bracher, M. (1993) *Lacan, discourse and social change. A psychoanalytic cultural criticism*. Cornell University Press. Ithaca & London.
- Bracher, M. and Alcorn, M (1994) *Lacanian theory of discourse*. New York: New York Univ. Press.
- Bretherton, C. and Vogler, J. (2006) *The European Union as a global actor*. 2nd ed. Routledge, London.
- Brinkmann, S. (2013) *Qualitative interviewing. Understanding qualitative research*. Oxford: OUP.
- Broadhead, L.A. (2002) *International Environmental Politics: The Limits of Green Diplomacy*. Boulder, Co: Lynne Rienner.
- Butler J (1997) *The Psychic Life of Power: Theories in Subjection*. Stanford: Stanford University Press.
- Campbell, K. (2016) "Political encounters: Feminism and Lacanian psychoanalysis" in S. Tomšič, and A. Zevnik, (2016). *Jacques Lacan. Between psychoanalysis and politics*. London: Routledge, pp. 233-252.
- Cass, L.R. (2006) *The Failures of American and European Climate Policy: International Norms, Domestic Politics, and Unachievable Commitments*. Albany: SUNY Press.
- Cass, L.R. (2014) "The discipline of global environmental politics: a short history" in P. Harris (eds), *Routledge handbook of global environmental politics* (Eds). Routledge Handbooks.
- Checkel, J. (1998) "The constructivist turn in international relations theory". *World Politics* 50(2) pp. 324–348.
- Checkel, J. (2006) "Tracing Causal Mechanisms". *International Studies Review*, 8 (2), pp. 362–370.

- Chomsky, N. (1981) *Lectures on Government and Binding: The Pisa Lectures*. Holland: Foris Publications (reprint 7th edn, Berlin and New York: Mouton de Gruyter, 1993).
- Ciplet, D., Roberts, J. and Khan, M. (2015) *Power in A warming world*. The MIT Press.
- Cox, R. (1981) "Social forces, states and world orders: beyond international relations theory". *Millennium*, 10 (2) pp. 126 – 55.
- Curtin, D. and Manucharyan, T. (2015) "Legal acts and hierarchy of norms in EU law" in A. Arnall and D. Chalmers (Eds.) *The Oxford handbook of European Union law*. Oxford: OUP, pp. 103-125.
- Demeritt, D. (2001) "The Construction of Global Warming and the Politics of Science". *Annals of the Association of American Geographers*, 91, pp. 307–338.
- Denzin, N. K. (2001) "The reflexive interview and a performative social science". *Qualitative Research*, 1, pp. 23–46.
- Dobson, A. (1990) *Green political thought*. 1st ed. London u.a.: Unwin Hyman.
- Doty, R. (1993) "Foreign Policy as Social Construction: A Post-Positivist Analysis of US Counterinsurgency Policy in the Philippines". *International Studies Quarterly*, 37 (3) pp. 297-320.
- Dreyfus, H.L and Rainbow, P. (1983) *Foucault: Beyond Structuralism and Hermeneutics*. University of Chicago Press.
- Dryzek, J. S. (1997) *The politics of the earth: Environmental discourses*. New York: Oxford University Press.
- Dunn, K. (2006) "Examining Historical Representations". *International Studies Review*, 8 (2), pp. 370–381.

Dunn, K., & Neumann, I. (2016) *Undertaking Discourse Analysis for Social Research*. ANN ARBOR: University of Michigan Press.

Dupont, C. and Oberthür, S. (2015). *Decarbonization in the European Union: Internal Policies And External Strategies*. 1st ed. Palgrave Macmillan.

Eckersley, R. (1992) *Environmentalism and political theory*. 1st ed. Albany: State University of New York Press.

Edkins, J. (1999) *Poststructuralism & international relations*. Boulder, Colo.: Lynne Rienner Publishers.

EESC (2013) “Towards more sustainable consumption: industrial product lifetimes and restoring trust through consumer information” (CCMI/112-EESC-2013-1904) <https://www.eesc.europa.eu/en/our-work/opinions-information-reports/opinions/towards-more-sustainable-consumption-industrial-product-lifetimes-and-restoring-trust-through-consumer-information#downloads> (last accessed in June 2020).

Ellen MacArthur Foundation, McKinsey Centre for Business and Environment and Stiftungsfonds für Umweltökonomie und Nachhaltigkeit (SUN) (2015). *Growth within: a circular economy vision for a competitive Europe*, <https://www.ellenmacarthurfoundation.org/publications/growth-within-a-circular-economy-vision-for-a-competitive-europe> (last accessed in June 2020).

Ellen MacArthur Foundation (2019) “What is a circular economy” <https://www.ellenmacarthurfoundation.org/circular-economy/concept> (last accessed in June 2020).

Epstein, C. (2008) *The Power of Words in International Relations: birth of an anti-whaling discourse*. Cambridge: Cambridge University Press.

Epstein, C. (2011) “Who speaks? Discourse, the subject and the study of identity in international politics”. *European Journal of International Relations*, 17(2), pp. 327-350.

EU (2009) Renewable Energy Directive (Directive 2009/28/EC) <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32009L0028> (last accessed in June 2020).

EU (2012) Energy Efficiency Directive (Directive 2012/27/EU) <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1399375464230&uri=CELEX:32012L0027> (last accessed in June 2020).

European Commission. (2014) “Communication: Towards a Circular Economy: A Zero Waste Programme for Europe”. (COM (2014) 398 final). Brussels: European Commission <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52014DC0398> (last accessed in June 2020).

European Commission. (2015) “Communication: Closing the loop - An EU action plan for the Circular Economy” (COM (2015) 614 final, Brussels: European Commission <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52015DC0614> (last accessed in June 2020).

EU Commission (2015) First circular Economy action plan https://ec.europa.eu/environment/circular-economy/first_circular_economy_action_plan.html (last accessed in June 2020).

European Commission (2016) Communication Ecodesign working plan 2016-2019 (COM (2016) 773 final) Brussels: European Commission <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1591200883158&uri=CELEX:52016DC0773> (last accessed in June 2020).

EU Commission (2018) “A Clean Planet for all - A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy” (COM (2018) 773 final) Brussels: European Commission <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A52018DC0773> (last accessed in June 2020).

EU Commission (2018) “A Clean Planet for all - A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy” (COM (2018) 773 final),

in depth analysis accompanying the Communication
https://ec.europa.eu/clima/policies/strategies/2050_en (last accessed in June 2020).

EU Commission, DG Research and Innovation (2018) “Final report of the High-level panel of the European Decarbonisation Pathways initiative” Brussels: European Commission
<https://op.europa.eu/en/publication-detail/-/publication/226dea40-04d3-11e9-adde-01aa75ed71a1> (last accessed in June 2020).

EU Commission, DG Energy (2019), Clean energy for all Europeans
https://op.europa.eu/en/publication-detail/-/publication/b4e46873-7528-11e9-9f05-01aa75ed71a1/language-en?WT.mc_id=Searchresult&WT.ria_c=null&WT.ria_f=3608&WT.ria_ev=search (last accessed in June 2020).

European Commission (2019) “Communication: The European Green Deal (COM (2019) 640 final) Brussels: European Commission <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1591201354409&uri=CELEX:52019DC0640> (last accessed in June 2020).

European Commission (2020) “Communication: A new Circular Economy Action Plan For a cleaner and more competitive Europe” COM/2020/98 final, Brussels: European Commission
<https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1583933814386&uri=COM:2020:98:FIN> (last accessed in June 2020).

European Parliament (2017) “Motion for a European Parliament resolution on a longer lifetime for products: benefits for consumers and companies”
https://www.europarl.europa.eu/doceo/document/A-8-2017-0214_EN.html (last accessed in June 2020).

EU (2018) Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action. <https://eur-lex.europa.eu/legal->

Evans, D. (1996) *An introductory dictionary of Lacanian psychoanalysis*. London: Routledge.

Fairclough, N. (2003) *Analysing discourse: Textual analysis for social research*. London and New York: Routledge Taylor and Francis Group.

Fairclough, N. (2010) *Critical discourse analysis: the critical study of language*. 2nd ed. Longman applied linguistics. Longman, Harlow.

Feindt, P. H., & Oels, A. (2005) “Does discourse matter? Discourse analysis in environmental policy making”. *Journal of Environmental Policy & Planning*, 7(3), pp. 161–173.

Feldner, H. and Vighi, F. (2015) *Critical theory and the crisis of contemporary capitalism*. New York [u.a.]: Bloomsbury Academic.

Fierke, K. (2001) “Critical Methodology and Constructivism” in K. Fierke and K. Jørgensen, eds. *Constructing International Relations: the next generation*. New York: M.E. Sharpe, pp. 115–135.

Fink B, (1999) “The Master Signifier and the Four Discourses” in D. Nobus (eds) *Key concepts of Lacanian psychoanalysis*. New York: Other Press.

Finnemore, M. (1996) *National interests in international society*. Ithaca, NY: Cornell University Press.

Fischer, F. (2003) *Reframing public policy: Discursive politics and deliberative practices*. Oxford: Oxford University Press.

Fletcher, R. & Rammelt, C. (2017) “Decoupling: A Key Fantasy of the Post-2015 Sustainable Development Agenda”. *Globalizations*, 14:3, pp. 450-467.

Fogel, C. (2007) "Constructing Progressive Climate Change Norms: The US in the Early 2000s" in M. Pettenger, (2007). *The social construction of climate change*. 1st ed. Aldershot, Hampshire, England: Ashgate, pp. 99-120.

Foucault, M. (1972) *The Archeology of Knowledge*. London: Pantheon.

Foucault, M. (1977) *Discipline and punish*. New York: Pantheon Books.

Foucault, M. (1979) *The history of sexuality*. London: Allen Lane.

Foucault, M. (1980) "Truth and power" in Foucault, M. and Gordon, C. (1980). *Power/knowledge*. 1st ed. New York: Pantheon Books.

Goodin, R. (1992) *Green political theory*. 1st ed. Cambridge, UK: Polity Press.

Gupta J., and Grubb, M. (2000) *Climate change and European leadership*. 1st ed. Dordrecht: Springer.

Haas, P. (1992) Introduction: epistemic communities and international policy coordination. *International Organization*, 46(01), pp. 1-35.

Habermas, J. (1996) *Between facts and norms: Contributions to a discourse theory of law and democracy*. Cambridge, MA: MIT Press.

Hajer M., & Versteeg W., (2005) "A decade of discourse analysis of environmental politics: Achievements, challenges, perspectives". *Journal of Environmental Policy & Planning*, 7:3, pp. 175-184.

Hajer, M. (1995) *The politics of environmental discourse*. 1st ed. Oxford: Clarendon Press.

Hajer, M., & Wagenaar, H. (Eds.). (2003) *Deliberative policy analysis: Understanding governance in the Network society*. Cambridge: Cambridge University Press.

Hannigan, J. (1995) *Environmental Sociology*. New York: Routledge.

- Hansen, L. (2006) *Security as Practice: Discourse Analysis and the Bosnian War*. London: Routledge.
- Haraway, D. (1991) *Simians, cyborgs and women. The reinvention of nature*. New York: Routledge.
- Helm, D. (2008) "Climate-change policy: why has so little been achieved?" *Oxford Review of Economic Policy*, 24(2), pp. 211-238.
- Hoffmann, M.J. (2005), *Ozone Depletion and Climate Change*. Albany, New York: State University of New York Press.
- Hooghe, L. and Marks, G. (2001.) *Multi-level governance and European integration*. 1st ed.
- Hopf, T., (1998) "The Promise of Constructivism in International Relations Theory". *International Security* 23 (1): pp. 171–200.
- Humphreys, D. (2009) "Discourse as ideology: Neoliberalism and the limits of international forest policy". *Forest Policy and Economics*, 11(5-6), pp 319–325.
- IPCC (2014): *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp.
- IPCC (2018): *Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty* [V. Masson-Delmotte, P. Zhai, H. O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J. B. R. Matthews, Y. Chen, X. Zhou, M. I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, T. Waterfield (eds.)]. In Press.
- Jordan, A. Huitema, D., Van Asselt, H. (2010) "Climate change policy in the European Union: an introduction" in A., Jordan, D. Huitema, H. Van Asselt, T. Rayner, and F.

Berkhout, (2010) *Climate Change Policy in the European Union*. 1st ed. Cambridge: Cambridge University Press, pp. 3-26.

Katzenstein P.J., (1996) "Alternative perspectives on national security", in: P.J. Katzenstein (eds.) *The Culture of National Security: Norms and Identity in World Politics*. New York: Columbia University Press pp. 1-32.

Keller, R. (2012) *Doing discourse research. An introduction for social scientists*. London: Sage.

Keohane, R. and Nye, J. (1977) *Power and interdependence*. 1st ed. Boston: Little, Brown.

Klepec, P. (2016) "On the mastery in the four 'discourses'" in S. Tomšič, and A. Zevnik, (2016). *Jacques Lacan. Between psychoanalysis and politics*. London: Routledge pp. 115-130.

Koren, D. (2014) "Agonistic discourses, analytic act, subjective event" in I. Parker and D. Pavón-Cuéllar (eds.) *Lacan, discourse, event: new psychoanalytic approaches to textual indeterminacy*. London and New York: Routledge, pp. 247-256.

Korhonen, J. & Honkasalo, A. & Seppälä, J (2018) "Circular Economy: The Concept and its Limitations". *Ecological Economics*, Elsevier, vol. 143(C), pp. 37-46.

Kozinets, R. (2015) *Netnography*. Los Angeles (Calif.): Sage.

Krasner, S. (1983) *International regimes*. 1st ed. Ithaca: Cornell University Press.

Kratochwil, F.V. (1989) *Rule, Norms and Decisions: On the conditions of practical and legal reasoning in international relations and domestic affairs*. Cambridge: Cambridge University Press.

Kuus, M. (2014) *Geopolitics and expertise*. Malden, Massachusetts: John Wiley & Sons, Ltd.

- Lacan, J. (1972) “Du discours psychanalytique/Del discorso psicoanalitico”, in *Lacan in Italia, 1953–1978*. Milano: La Salmandra, available online.
- Lacan, J. (1973a) *Le Séminaire. Livre XI. Les Quatre Concepts Fondamentaux de la Psychanalyse* (1964). Paris: Seuil.
- Lacan, J. (1973b) “Excursus/Excursus” in *Lacan in Italia, 1953–1978*. Milano: La Salmandra, available online.
- Lacan, J. (1969-1970/ 1991) *Le Séminaire. Livre XVII. L’Envers de la Psychanalyse*. Paris: Seuil.
- Lacan, J., Miller, J. and Sheridan, A. (1998) *The Four Fundamental Concepts Of Psycho-Analysis*. New York, N.Y.: Norton and Company.
- Lacan, J. (1968 – 69/2006) *Le Séminaire: Livre XVI. D’un autre à l’Autre*. Paris : Seuil
- Lacan, J. (2007) *The Seminar, Book XVII. The Other Side of Psychoanalysis*. New York and London: W. Norton.
- Lacan, J. (2013) *Le Séminaire VI, Le désir et son interprétation, 1958–1959*. Paris: Seuil.
- Lacan, J., Miller, J., Copjec, J., Hollier, D., Krauss, R., Michelson, A. and Mehlman, J., (1990) *Television*. New York, N.Y.: W.W. Norton.
- Laclau E. & Mouffe C. (1985) *Hegemony and socialist strategy: towards a radical democratic politics*. 2nd ed. Verso, London; New York.
- Leipold, S., Feindt P.H., Winkel G. & Keller R. (2019) “Discourse analysis of environmental policy revisited: traditions, trends, perspectives”. *Journal of Environmental Policy & Planning*, 21:5, pp. 445-463.
- Levy, M., Keohane, R. and Haas, P. (1993) “Improving the effectiveness of International Environmental Institutions” in Haas, P., Keohane, R. and Levy, M. (eds.). *Institutions for the earth*. 1st ed. Cambridge, Mass.: MIT Press, pp. 397-426.

Litfin, K. (1994) *Ozone discourses*. 1st ed. New York: Columbia University Press.

Luke, T. (1999) Eco-Managerialism. Environmental Studies as a Power/Knowledge Formation in: F. Fischer & M. A. Hajer (Eds), *Living with Nature. Environmental Politics as Cultural Discourse*. Oxford: Oxford University Press, pp. 103–120.

Material Economics AB (2018) The Circular Economy, a powerful force for climate mitigation <https://materialeconomics.com/publications/the-circular-economy-a-powerful-force-for-climate-mitigation-1> (last accessed in June 2020).

Meadows, D. (1972) *The limits to growth*. 1st ed. New York, NY: New American Library.

MetOffice (2020) “Coronavirus will impact the atmospheric CO2 record – but not enough to slow global heating”, MetOffice press office <https://blog.metoffice.gov.uk/2020/05/07/coronavirus-will-impact-the-atmospheric-co2-record-but-not-enough-to-slow-global-heating/> (last accessed in June 2020).

Milliken, J. (1999) “The Study of Discourse in International Relations”. *European Journal of International Relations*, 5(2), pp. 225-254.

Moravcsik, A. (1998) *The choice for Europe*. 1st ed. London: Routledge.

Morgenthau, H. (1948) *Politics among nations*. 1st ed. New York: A.A. Knopf.

Morrison, D. (2003) “New Labour and the Ideological Fantasy of the Good Citizen”. *Journal for the Psychoanalysis of Culture and Society* 8 (2): pp. 273–278.

Neill, C. (2013) “Breaking the text: An introduction to Lacanian discourse analysis”. *Theory & Psychology*, 23(3), pp. 334-350.

Newell, P. (2000) *Climate for change*. 1st ed. Cambridge, UK: Cambridge University Press.

Oberthür, S. and Kelly C. R. (2008) “EU Leadership in International Climate Policy: Achievements and Challenges”. *International Spectator*, 43 (3) pp. 35-50.

Oberthür S., Pallemmaerts, Kelly M. C., Koloriet L., Style H., Adelle C., Barata P. (2010) *The new climate policies of the European Union*. 1st ed. Brussels, Belgium: VUBPress.

Oberthür, S. (2009) "The Role of the EU in Global Environmental and Climate Governance" in M. Telò, (2009). *The European Union and global governance*. 1st ed. London: Routledge, pp. 192-209.

Oels, A. (2005) "Rendering Climate Change Governable: From Biopower to Advanced Liberal Government?". *Journal of Environmental Policy & Planning*, 7(3) pp. 185-207.

Parker, I. (2005) "Lacanian Discourse Analysis in Psychology". *Theory & Psychology*, 15(2), pp. 163-182.

Parker, I. (2010) "Psychosocial studies: Lacanian discourse analysis negotiating interview text". *Psychoanalysis, Culture & Society*, 15(2), pp. 156-172.

Parker, I. (2014) "Lacanian Discourse Analysis: seven elements" in I. Parker and D. Pavón-Cuéllar (eds.) *Lacan, discourse, event: new psychoanalytic approaches to textual indeterminacy*. London and New York: Routledge, pp. 38-51.

Paterson, M. (1996) *Global warming and global politics*. 1st ed. London: Routledge.

Paterson, M. (2001) *Understanding global environmental politics*. 1st ed. Houndmills, Basingstoke, Hampshire: Palgrave.

Pavón Cuéllar, D., Carlo, D. and Parker, I. (2010). *From the Conscious Interior to an Exterior unconscious. Lacan, discourse analysis and social psychology*. London: Karnac.

Pettenger, M. (2007) *The social construction of climate change*. 1st ed. Aldershot, Hampshire, England: Ashgate.

Rasiński, L. (2011) "The idea of discourse in poststructuralism: Derrida, Lacan and Foucault". *Teraźniejszość Człowiek Edukacja*, 1: *A quarterly of social and educational ideas*, pp. 7-22.

- Richardson, T. & Sharp, L. (2001) "Reflections on Foucauldian Discourse Analysis in planning and environmental policy research". *Journal of Environmental Policy & Planning*, 3, pp. 193–209.
- Roe, E. M. (1994). *Narrative policy analysis. Theory and practice*. Durham/London: Duke University Press.
- Rowlands, I. (1995) *The politics of global atmospheric change*. 1st ed. Manchester: Manchester University Press.
- Ruggie, J.G. (1998) *Constructing the World Polity: Essays on International Institutionalization*, London: Routledge.
- Saurin, J. (1996) "International relations, social ecology and the globalisation of environmental change", in J. Vogler and M. Imber (Eds.) *The Environment and International Relations*. London: Routledge, pp. 77 – 98.
- Saussure, F. (1959) *Course in general linguistics*. New York: Philosophical Library.
- Schiffrin, D., & Tannen, D. (2001) *The handbook of discourse analysis*. Oxford: Blackwell.
- Shapiro, M. J. (1992) *Reading the Postmodern Polity: political theory as textual practice*. Minneapolis, Oxford: University of Minnesota Press.
- Shapiro, M.J. (1981) *Language and Political Understanding: The Politics of Discursive Practices*. New Haven: Yale University Press.
- Skjærseth, J.B. and Wettestad, J. (2010) "The EU Emissions Trading System Revised (Directive 2009/29/EC) in S. Oberthür, M. Pallemmaerts, C. Kelly, L. Koloriet, H. Style, C. Adelle, P. Barata, (2010). *The new climate policies of the European Union*. 1st ed. Brussels, Belgium: VUB Press, pp. 65-91.
- Solomon T. (2015) *The politics of subjectivity in American foreign policy discourse*. University of Michigan Press.

Stavrakakis, Y. (1999) *Lacan and the political*. London: Routledge.

Steinberg, P.E. (2001) *The Social Construction of the Ocean*. Cambridge: Cambridge University Press.

Stevenson, H. (2012) *Institutionalizing Unsustainability: The Paradox of Global Climate Governance*. Berkeley: University of California Press.

Strange, S. (1982). "Cave! hic dragones: A critique of regime analysis". *International Organization*, 36(2), pp. 479-496.

Šumič, J. "Politics and psychoanalysis in the times of the inexistent Other" in S. Tomšič, and A. Zevnik, (2016). *Jacques Lacan. Between psychoanalysis and politics*. London: Routledge, pp. 28-42.

Susskind, L., Ali, S. and Hamid, Z. (2014). *Environmental Diplomacy*. New York: Oxford University Press.

Tomšič, S. (2016) "Psychoanalysis, capitalism, and critique of political economy: Toward a Marxist Lacan" in S. Tomšič, and A. Zevnik, (2016). *Jacques Lacan. Between psychoanalysis and politics*. London: Routledge. pp. 146-163.

Tomšič, S. and Zevnik, A. (2016) *Jacques Lacan. Between psychoanalysis and politics*. London: Routledge.

United Nations (2015), *The Sustainable Development Goals, SDG 12 Ensure sustainable consumption and production patterns*. <https://sustainabledevelopment.un.org/sdg12> (last accessed in June 2020).

United Nations Framework Convention on Climate Change (2015) *Adoption of the Paris Agreement*, 21st Conference of the Parties, Paris: United Nations. <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement> (last accessed in June 2020).

United Nations Framework Convention on Climate Change Secretariat (2014) *How to COP. A handbook for hosting United Nations Climate Change Conferences*. Available at <https://unfccc.int/about-us/press-and-media/publications> (last accessed in July 2020).

Vanhulst, J., & Beling, A. E. (2014) “Buen vivir: Emergent discourse within or beyond sustainable development?”. *Ecological Economics*, 101, pp. 54–63.

Vogler, J. (1995) *The global commons*. 1st ed. New York, N.Y.: J. Wiley & Sons.

Waltz, K. (1979) *Theory of international politics*. 1st ed. Reading, Mass.: Addison-Wesley Pub. Co.

Ward, H. (1996) “Game Theory and the Politics of Global Warming: The State of Play and beyond”. *Political Studies*, 44(5), pp. 850-871.

Wendt A (1999) *Social Theory of International Politics*. Cambridge: Cambridge University Press.

Wendt, A. (1992) “Anarchy is what states make of it: the social construction of power politics”. *International Organization*, 46(02), pp. 391-425.

Wengraf, T. (2001) *Qualitative research interviewing*. Thousand Oaks, CA: Sage.

Willetts, P. (1993) *Transnational actors and changing world order*. 1st ed. Totsuka, Yokohama, Japan: PRIME, International Peace Research Institute Meigaku.

Winkel, G., Gleißner, J., Pistorius, T., Sotirov, M., & Storch, S. (2011) “The sustainably managed forest heats up: Discursive struggles over forest management and climate change in Germany”. *Critical Policy Studies*, 5(4), pp. 361–390.

Wodak, R. (2011) *The discourse of politics in action*. Basingstoke: Palgrave Macmillan.

World Commission on Environment and Development (1987) *Our common future*. Oxford University Press.

Wright, C. (2016) "Discourse and the Master's lining: A Lacanian critique of the globalizing (bio)politics of the Diagnostic and Statistical Manual" in S. Tomšič, and A. Zevnik, (2016). *Jacques Lacan. Between psychoanalysis and politics*. London: Routledge. pp. 131-145.

Wurzel R, and Connelly J. (2011) *The European Union as a Leader in International Climate Change Politics*. 1st ed. London: Routledge.

Young, O. (1989.) *International cooperation. Building regimes for natural resources and the environment*. Cornell University Press, Ithaca & London.

Žizek, S. (1993) *Tarrying with the Negative: Kant, Hegel, and the Critique of Ideology*. Duke University press.

Žižek, S. (2004) "The Structure of Domination Today: A Lacanian View." *Studies in East European Thought*, 56 (4): pp. 383–403.

Žižek, S. (2006) *The Parallax View*. Cambridge, MA: MIT Press.

Appendix

Table 1: EU side events attended at COP23

UN COP23 Bonn (6-17 November 2017)	
06/11/2017	<ul style="list-style-type: none"> • LULUCF actions in European Member States (organised by DG Clima) • EU's climate diplomacy: Innovative approaches for a climate-resilient, low-carbon future (organised by Adelphi in cooperation with EEAS; German Federal Foreign Office) • Air quality and climate change (organised by DG RC)
07/11/2017	<ul style="list-style-type: none"> • Implementing the Paris Agreement: Energy Transition and Innovation and the role of the International climate governance (organised by L'Institut du développement durable et des relations internationales (IDDRI), Climate strategies (CS)) • Increasing action between now and 2020 (organised by CAN Europe) • JPI action: Actions in addressing shared challenges of climate change Providing climate knowledge to support societal innovation and transformation (organised by Joint programme initiative "Connecting climate knowledge for Europe; DG research and innovation, Centro Euromediterraneo sui cambiamenti climatici)
08/11/2017	<ul style="list-style-type: none"> • The EU steps up climate finance: the LIFE programme (organised by LIFE unit at EASME; DG Clima) • Just transition to a low carbon economy: responding to political and ethical challenges of global climate change (organised by EESC, King's college London/Foundation for European Progressive studies; Fondation Jean-Laurès)
10/11/2017	<ul style="list-style-type: none"> • LIFE BEEF carbon: the carbon mitigation action plan in beef production in France, Ireland, Italy, Spain (organised by IDELE French livestock institute INTERBEV) • Shared mobility for climate mitigation and big data (the real urban emission initiative (TRUE) (hosted by International transportation Forum and Institute for Transport and Development Policy (ITDP)
11.11.2017	<ul style="list-style-type: none"> • Transport thematic day Sustainable freight for a low-carbon transport system (moderated by Pat Cox, Former President, European Parliament) • Visionary leadership for the transition to 1.5 temperature limit with clean technology (organised by Brahma Kumaris, The centre for Alternative technology)

Table 2: In-site observations conducted at the EU headquarters in Brussels.

Fieldwork in Brussels, June 2018-December 2018	
13/06/2018	<ul style="list-style-type: none"> • <i>EU for Talanoa</i>. Stakeholder event organised by the EU Commission for sharing stories of success to meet the Paris agreement goals.¹⁰⁶ The EU presented its story of success through the 2030 framework and it also mentioned the EU is preparing its economic, environmental social analysis that will be published in November 2018 under the label “EU long-term strategy”.
10-11/07/2018	<ul style="list-style-type: none"> • <i>The EU long-term vision for a clean modern and competitive economy</i>. A two-day stakeholder consultation that brought together policymakers and stakeholders from business, research and civil society for a discussion on the forthcoming strategy. This stakeholder event preceded the opening of public consultations to take stock of all the various positions to be included in the long-term strategy.¹⁰⁷.
17/09/2018	<ul style="list-style-type: none"> • <i>Carbon Capture and Utilisation Technologies - Technological status, environmental impacts and policy developments</i>. This stakeholder event on CCU gathered together academics, industry and policy experts to discuss current and future potential of CCU technologies, the efforts that need to be undertaken by industry and research, how these are linked to climate objectives, energy, impacts on other technologies (electrification, renewables, hydrogen).¹⁰⁸
18-19/09/2018	<ul style="list-style-type: none"> • <i>Postgrowth conference</i>. Multi-stakeholder gathering organised by ten Members of the European Parliament representing five political groups: Philippe Lamberts, Florent Marcellesi and Molly Scott-Cato (Greens/EFA), Alojz Peterle (EPP), Gerben-Jan Gerbrandy (ALDE), Marisa Matias and Helmut Scholz (GUE) and Guillaume Balas, Elly Schlein and Kathleen Van Brempt (S&D). The organisers cite that the aim was “re-think future policies and discuss alternatives respecting the environment, human rights and viable economic development” (PostGrowth, 2018). But the panels organised aimed at discussing the myth of growth. It gathered academics, activists and policymakers.¹⁰⁹.

¹⁰⁶ As the Talanoa dialogue takes place within the United nations framework on climate change (UNFCCC) this event presents the story of the EU to be shared in an international context, and the EU reassertion of its participation to the Paris Agreement framework.

¹⁰⁷ As an interview with CAN Europe has clarified, it is obviously not at these events that the Commission first hears such stakeholder opinions (Interviewee 1, 19/07/2018), but this is certainly one of the best ways to access the research field.

¹⁰⁸ In 2017 DG Clima began a study to identify the potential of CCU technologies with the aim of assessing their readiness and assess the EU regulatory set up. The aim was to ensure the contribution of these technologies to climate mitigation. This study was conducted by Ramboll together with consortium partners Institute for Advanced Sustainability Studies (IASS Potsdam), Universität Kassel, Center for Environmental Systems Research, CE Delft and IOM Law.

¹⁰⁹ This means that it was not organised by the EU Parliament as an institution. The Parliament as locus of democratic debate quite often hosts events of this type, but this does not mean that they are official and that they are relevant in the decision-making process.

10-11/10/2018	<ul style="list-style-type: none"> • <i>EU Parliament ordinary meetings. ENVI committee meeting.</i>¹¹⁰ ENVI is the Parliament committee dealing with climate. As its scope is much bigger than climate change, items on the agenda are not always climate related. The first day was a voting day only, there was no parliamentary debate of the items on the agenda. On the second day a debate on air pollution has been observed.
23/10/2018	<ul style="list-style-type: none"> • <i>CAN Europe General Assembly.</i>¹¹¹ Exceptional participation upon invitation. During the assembly, CAN Europe members shared views about the necessity to push the EU for more ambition (ambition is usually interpreted as higher targets). They also expressed some concerns over the not yet released Communication on long-term strategy as they are one of the stakeholders.
29/10/2018	<ul style="list-style-type: none"> • EESC event: <i>Facilitating access to climate finance for non-State actors.</i> The EESC is not an EU institution defined by the Maastricht Treaty (1992), but it in fact it represents all civil society. As an institution they work closely with the official EU institutions, most notably the Commission and the Parliament. The theme of this event was a problem of finance access of EU funds within the EU, including EU municipalities.
08/11/2018	<ul style="list-style-type: none"> • <i>Change the climate. For our health.</i> Event at the EU Parliament attended upon invitation by the MEP Mr. Pedicini (M5S). Another event that takes place by initiative of a MEP and not by the EU Parliament as an institution. Because it was organised by an Italian MEP it focused more on air pollution, environment, risks to health for mainly Italian municipalities.
12-16/11/2018	<ul style="list-style-type: none"> • <i>Critical raw materials week.</i> Stocktaking event organised by EU Commission's DG grow. A five-day discussion between policymakers and research institutes on the critical raw materials that are needed for the low carbon transition and how these can be used in circular economy models. Experiences of "sustainable mining" reported.¹¹²
19/11/2018	<ul style="list-style-type: none"> • <i>Black carbon & climate change in the European Arctic.</i> Organised by the Northern Dimension Institute,¹¹³ the event focused on the neglected problem of black carbon emissions in the Arctic coming mainly from Russia and affecting the Scandinavian countries. The event was advertised by the EU and included a keynote speech by DG Clima' Yvon Slingenberg and the participation of DG environment at the panels.

¹¹⁰ ENVI stands for Committee on Environment, Public Health and Food Safety.

¹¹¹ CAN Europe is one of the largest networks of environmental NGOs, they lobby the Commission and regularly participate at stakeholder events.

¹¹² As one interviewee in DG energy will explain a few days later, this is another type of stakeholder event, in that they do not fit into a process, but they are more a type of stock taking event (Interviewee 7, 13/11/2018).

¹¹³ Research institute in Finland, which receives funds from the EU.

27/11/2018	<ul style="list-style-type: none"> • <i>EU Research and Innovation in our daily life</i>. An EU parliament/EU Commission joint event organised at the EU Parliament by the former president of the EU Parliament Antonio Tajani, and the former Commissioner for Research, Science and Innovation Carlos Moedas. This event brought together researchers and politicians to reflect on past and present achievements of EU-funded research and innovation. The themes of discussion were not entirely related to climate change, but included health and wellbeing, sustainable environment, safe and secure society, and how to put innovation on the market.
27/11/2018	<ul style="list-style-type: none"> • <i>EU trade policy day</i>. EU stakeholder event on open and fair global trade, against protectionism. The event itself did not primarily have a climate focus but a session on “sustainable” trade was included. Events that are not climate-driven are useful to understand to what extent climate and environment are considered across all areas of the EU’s policymaking.
28/11/2018	<ul style="list-style-type: none"> • <i>High level round table on decarbonisation of heating sector</i>. This event gathered leaders of the European sustainable and renewable heat industry associations that organise themselves under the DecarbHeat Initiative. The aim was to debate the contribution of the heating sector in homes and industry to the decarbonisation of the EU energy sector, future and existing pathways, technologies, policies to make the heating sector more sustainable and ensure a cost-effective transition by 2050.
30/11/2018	<ul style="list-style-type: none"> • <i>Tackling premature obsolescence in Europe</i>. EESC event to address planned obsolescence to protect consumers and transition to a circular economy. In 2013, the EESC launched its Milestone opinion.¹¹⁴ The EESC organised this event five years later to take stock of the action taken so far by the EU institutions, Member states and businesses regarding durability and reparability, planned obsolescence, impact on consumers and to debate new ways of action
06-07/11/2018	<ul style="list-style-type: none"> • <i>Boosting circularity among SMEs</i>¹¹⁵. Networking event organised by EU Commission’s DG environment under the premise that to enable the transition to a circular economy, economic actors and local authorities should all connect and support SMEs. The event included presentation of best practices and ad hoc workshops. For example, I was assigned to a small company in Greece producing washing products and detergents. Various problems emerged on how to make it circular and possibly local in the life cycle of a product in Greece with current policies and legislations.

¹¹⁴ The 2013 Milestone opinion (CCMI/112-EESC-2013-1904) by the EESC called for a ban on products with built in defects designed on purpose to end a product’s life prematurely so that a new product is bought. It also suggested that more information of the products lifespan should be made available to consumers. Based on this opinion, the European Parliament voted back in July 2017 on a resolution for increasing the products’ lifetime and highlight benefits for consumers and companies.

¹¹⁵ The EU Commission adopted its Circular economy package in 2015 in order to promote the transition towards a circular economy.

Table 3: EU side events attended at COP24

UNCOP24 (3-14 December 2018)	
10/12/2018	<ul style="list-style-type: none"> • EU2050 Covenant of Mayors (organised by the Commission, Global covenant of Mayors secretariat, Regional covenant of Mayors secretariats, Global and regional city networks).
11/12/2018	<ul style="list-style-type: none"> • Circular economy, the missing link in climate action (organised by the Netherlands ministry of infrastructure) • Energy day, Thematic session. Coal regions in transitions (organised by DG Energy).
12/12/2018	<ul style="list-style-type: none"> • EU2050 High level event on the strategy for long-term EU greenhouse gases emissions reduction (organised by the EU Commission) • EU2050 High level panel of the European decarbonisation pathways initiatives (Pierre Deschamps, DG research and innovation) • The role of carbon pricing in reaching Paris objective and EU's long-term decarbonisation strategy (organised by the European Parliament) • Achieving a net zero emissions energy system by 2050 (organised by GasNaturally).
13/12/2018	<ul style="list-style-type: none"> • EU2050 towards a thriving carbon neutral industry in Europe by 2050 (organised by Sustainable Process Industry through Resource and Energy Efficiency Public-Private Partnership; DG research and innovation; Carbon Market Watch (CMW). • EU2050 long-term strategy for decarbonisation of transport (Organised by Transport and Environment, DG clima, Wuppertal institute of climate, Environment and Energy, UN-Habitat ÖKO-Institut) • EU2050 Yes Europe, Youth engaging for a sustainable Europe (Organised by Alexandra Blin, Institute Jacques Delors, Paris).

Interviews

The catalogue of interviews conducted looks as follows: three interviews with DG Clima, three interviews with DG Energy, one interview with DG Environment; one interview with DG Research and Innovation, one interview with DG Grow, two phone interviews with DG Joint Research Centre¹¹⁶; one interview with the EU parliament; one interview with the EESC; one interview with CAN Europe; one interview with the EU Commission representation at the International maritime organisation (IMO).¹¹⁷ The transcripts below are anonymised and reported in chronological order.

Interviewee 1 18/07/2018

Q. As I said it is bit of like a chat, nothing very tricky, like a little conversation where I would like to talk about your role within CAN and how this relates to the Commission and in relation to mitigation efforts, ok? so what constitutes this mitigation narratives basically. First of all, if you would like to explain what your role at CAN is and if you can describe, I don't know, your typical day at work, what you exactly do.

A. Ok, that's a good question. So, I work at CAN Europe, my title is [...] which is a fancy title for, ehm my core activities is leading the work for the coalition for higher ambition. And this coalition for higher ambition is an informal gathering of stakeholders from across sectors and across Europe so businesses, trade unions, we also have investors group, we have local authorities, and ehm we have brought, bring these together so to have kind of joint platform to advocate for our common priorities of ambitions EU's climate policies. So, all of these stakeholders work on an overall level of ambition designing, and by these, I mean the peaks targets of the EU's climate and energy policies, but they work through these different policies processes. So some of them work through these specific legislations some of them work on some like market design, type of things some so everybody works on EU policy, all of them work on the different types of different fields but it seems that what we have in common with these stakeholders is that we all believe that the EU should be more ambitious should speak of higher mitigation targets but also energy efficiency targets, renewable targets etc. My work is to design and implement the activities of these gatherings so ehm something we have done that you have seen is a statement that we released on the day of the EU for Talanoa conference, or the day before, actually. So we tried to come up

¹¹⁶ DG Joint research Centre is the only non-policy DG. They are the knowledge and science service of the EU. They are spread across six different sites. The phone interviews have been conducted with the Seville (Spain) and Ispra (Italy) sites.

with joint statements ehm so that we can target EU policymakers so this is kind of our public face work of the coalition but of course we do also within in the coalition we kind of do exchange of information we also do a bit of capacity building. We are for example, at the moment, one of our works strand is coming up with a joint narrative so we work on narrative where everybody pictures their stories and their narratives and see if we can come to a common story that we can use

Q. This is very interesting so some of the points you raised maybe will come back during the interview, especially the one of the narratives that I reserved for the end so it's good that you touched upon these little points so maybe we can maybe explore them more in details. So basically, you with network you're trying to broaden participation so that everyone is included in this policy making process.

A. Yes I mean yes and no because in a sense a lot of these stakeholders are very active in the EU Brussels bubble policymaking, they have their own sort of advocacy parties but in a sense what also unites us is that well most of us are, CAN Europe works on all levels of ambition that works on all levels of advocacy priorities. A lot of these organisations that touch upon this so if we bring them together this makes a much stronger ehm yeah it makes basically just you know the more you are the merrier you know, that's the idea. Such things exist on the international level, we have businesswomen coalition you have the climate groups all of these things exist on the international level, but they don't necessarily exist on European level. And I think it's important to know that it's an informal group so there's no membership etc., it's a very informal we just kind of look at the priorities we can jointly work towards depending on what is the timeline what are the relevant political moments but there is not set structure, there is no set way of working and we try to figure it out along the way. In terms of my typical day at work it can be this is I would say my main strand of work, but I also dedicate some time to youth engagement within CAN Europe. So last year, not last year but end of May we went with a group of about 20 young people to the Europe youth committee in Strasbourg where we went as the Youth for climate ambition as our delegation was youth for climate ambition we went to this European youth event, for young people to be given the opportunity to talk to the EP and discuss a whole range of topics. One of these was like was global local climate change and protecting our planets and we went there with a specific aim of we expect more EU policymakers we expect stricter targets etc. so that is also a little bit part of my work is looking at it because youth is also a stakeholder. In a typical day I could work on state plans, I might have meetings with different members of our stakeholders in a group, I reach out to youth organization, I lead workshops so it's a bit of everything basically depending on the day.

Q. It sounds like very intense like very interesting. Can I ask you one thing because you said you make proposals, your try to work in a very comprehensive manner? Has there been any case of successful strategy for which you know the commission listened to CAN Europe and said yes that's the way forward?

A. Because I have just described what my work is within CAN Europe that of course CAN Europe is I mean this call for higher ambition is separate work strand. As you know CAN Europe does a lot of work in different fields renewable energy, energy efficiency, fossil fuels subsidies, coal phasing out and also the general level of ambition. We also work a lot on different regulations at EU level, like efforts sharing as you know LULUCF. ETS of course these kinds of things, so this is to give you an idea of how we work within our policy. Our policy is divided as you can see in work strands, we also have a network that we work with through because it is through the network that we manage to be able to influence. Talking about an example of success. I think there are quite few examples of success but it is very hard to say what CAN Europe did but recently we broadened our ranking which was called EU off targets it was ranking of about 14-15 member states in terms of how ambitious they are and whether they are kind of cooperating on meeting the EU policies, more ambitious or less ambitious, but there are sort of you know good guys bad guys and we have spoken up in media especially Portugal. It got covered in most countries when it came out and actually even in Ireland, I think it was the ministry of environment who even commented on this report directly saying no that's not a correct representation of what Ireland is doing. So, you can see that the idea of our advocacy is to influence policy makers and sometimes you can see the direct effects because there is not of course only an advocacy strategy but also communication strategy behind. So, I think it was the communication behind which enabled us to reach our policymakers and I think in terms of advocacy success. Now as you know the commission is working on its long-term strategy about a year ago we sat down not just can Europe but also a wider network Brussels-based NGOs like WWF, European policy officers etc and we all started thinking ok we need to start thinking we need to push the EU long-term strategy in, you know, as soon as possible. We didn't even put a date on it because it was like as soon as possible and because of course I would say yeah 9 months or something all of a sudden we had the long-term strategy like member states asking in march for a long-term strategy to come out in the first half of 2019. And we had the Commission saying to bring that out in November, and the Commission said we're doing the modelling during the summer you can see in the sense I think that we definitely contribute for peaking up the pace of this long-term strategy. Of course I can't say just CAN Europe but efforts from other organisations to push the Commission to say you know we need to start seeing something

on a table, reminding them of their own commitments because the Commission had said a long time ago that we were going to publish that you know still in 2019, or 2018, even helps to make sure they kind of stick to their own commitments. So, I think this is one example of our advocacy success, but I think there's been many in the past more subtle changes for me lobby on specific legislative files ehm this kind of things.

Q. This is very interesting also because don't get me wrong my work is not about measuring influence all this kind of things as I said it's a very qualitative thing so it was just out curiosity the way you lobby if there was a case where you can say oh yes we made a contribution in conveying a given message. So when you work with the Commission because I remember during our informal chat when we met at the EU for Talanoa you used to say that you meet the Commissioner as well, like Cañete, so you work closely with the Commission. Do you work only with DG Clima or other environment related DGs and not only environmental related? Do you think there sometimes any struggles between narratives?

A. So on the first part of your question, as to who we work with, yes, we have quite at the moment I think quite I would say helpful relationships, good working relationships with the Commissioner. So my director meets the commissioner I think 1 a month, as part of the green growth the Green10, the ten biggest NGOs environmental NGOs and we meet the commissioner on a monthly basis so I don't know for how long this has been going on but this happens then. We also have it depends on whom in the Commission...I think the main thing I learnt about lobbying etc. is that is also about personal relationships always and you can have very good working relationships with someone in the Commission, with people that are not on your side, and terrible, not very helpful or impactful or efficient relationships with people who are supposed to be on your side . Ehm so someone like my director has been working on the fields for I don't know 20-30 years. He knows people across, he drops them an email, it helps meeting people from the same country. We have meetings with the commissioner both formal and informal but not only the commissioner but like the people in the commissioner cabinets. For example, I remember when the Commission was about to bring out its proposal for the new energy efficiency regulation which back out in February of not last year but the year before. I think I contacted all the commission ehm all the dgs in the commission to have meetings with them on the topic of energy efficiency, so not only dg energy but also the other ones and also I tried to contact all the different Commssioner cabinets . This is in terms of how we work with them. In terms of the topics that we work on of course commissioner Cañete is very important for us but also Sefkovic working on energy Šefčovič. So, these are like the two main, the people, the commission cabinets that we work with and DGs DG Clima, DG Energy and sometimes Dg Grow.

Q. That's what I wanted to ask actually. How environmental is DG Grow if it makes sense?

A. I wouldn't be able to answer that question, I don't work with them at all, I think I can give you contacts of people who can probably answer this question. I know that at the moment they have this working group which is looking at decarbonization of heavy industries so of course decarbonisation is about reducing emissions and I think they are supposed to come out with I don't know at the beginning of October so they do work on this. In terms of how the DGs are good and work together I mean that's really difficult question. I think that sometimes it sounds to us that there is a conflict of interest sometimes but again it depends on people within the DGs who is leading the dg who is leading that specific work strand. I think what is interesting now is with the long-term strategy that is going to come out the DGs have to really work together you know DG energy providing some information for the modelling input thing to the modelling and also dg growth is also involved on what is industrial decarbonization pathways etc. So, this is where they have to come together but I don't exactly know how they do it. I think what is sometimes interesting is that you expect sometimes DG Clima to be the most progressive, DG Energy to be the less progressive etc. it's just an expectation but it is not necessarily true. And it does have a lot to do with the people working in those DGs. People who set up the general line and policy where is this going and then apart from all of this you have this European political strategy centre (EPSC) which is kind of called like the think tank of Junker and they also do a lot of setting out ambition and they are the ones for example who are preparing this long-term strategy, really kind of setting out the bigger vision, the bigger context where I thin I think DG Clima and DG energy crunching down their data etc.

Q. Now it's clearer actually because as an external sometimes it's hard to make sense of all the different networks and how they relate to each other inside the Commission, outside the Commission and so on. Can I ask you when you speak of the business sector, because my main problem is this usually understood as monolithic which is not monolithic at all when we speak about the business sector. Who do you try to bring in your team? Within CAN? Which business sector in particular?

A. This is also a bit of difficult question because the context is that also that CAN Europe is a network of NGOs so within this building coalition work strands, we have what we call natural allies which are the more progressive businesses. They are grouped within a group called under a platform called prince of wales corporate leaders groups corporate leaders group and this is sort of corporate based business and what they do is just like you have women business on the international level, they try to influence policy making and they are quite progressive so they are kind of natural allies to us. What we also have in Europe is

Business Europe which is the umbrella organization for all bunch of businesses and because it's a such a big organization of course their line tends to be the common denominator so for example EU for Talanoa, you didn't see anything that was relevant. So we from our view they are very conservative voices but unfortunately I think they are quite influential in the Commission, they 're quite influential so in terms of businesses what is interesting is that of course the Commission seems quite open to listen to key studies and experience from the ground and business says it's going to cost us this much, or we're going to benefit in this way etc. So we know that for example investors, there is an investors group called the Institutional Investors Group on Climate Change IIGCC and they for example have regular meetings with the Commission and they will bring their ehm you know CEOs from Danish pension funds or Swiss...whatever and that's is definitely what works with the Commission, when you bring the big guns that represent business, that represent investors etc because these people represent the real economy and that's what the Commission really wants, the Commission seems to be willing to listen to.

Q. So is there any actor, set of sectors that the commission listen to more than others?

A. I find it difficult to answer also because I haven't been on for so long that I can rely on my own experience, but I can see business groups a very influential voice in Europe. And also this is for the Commission but there is also very much see it in the EP where I remember at the beginning of 2017 or end of 2016 also when the EP was discussing the revision of the Emissions trading scheme at some point we had the environment committee in the EP they had done their opinion, their reports. Well the outcome was that that the cement industry would no longer receive free allowances in the ETS. They were all receiving free allowances, so this is something that the environmental community/committee fought very hard. After this thought from the environmental committee by the time it took to go to the plenary session there was so much lobbying from cement industry to undermine this part of the quote. They actually succeeded in this and you know what I saw is that all the cement companies all the cement industry organized big events invited all the EP all these MEPs, they want to talk to them and say if you vote for this and give me your constituency so many jobs will be lost, so many companies will go bankrupt etc. Of course, our economies will be negatively affected in this way and this way, and Parliamentarians would go - omg oh shit this is not what we want to happen - and I think there is also the same dynamic in the European Commission.

Q. This is what I was thinking, as when I go to these events recently last week I was in Brussels for the EU vision for a clean and modern economy and you go there and you realise there is not yet an agreed set of policies and they invite all these speaker to speak. So, what

is in your opinion the purpose of these events? Because there is a wide range of actors which one of those will eventually end up in the long-term strategy. So why do you think the Commission runs these events?

A. No this is a good question. The reason why the Commission runs these events is because partly the Commission has the obligation to consult stakeholders in policy and they can do that in different ways they have this online consultation. The EU for Talanoa I think was very specific because at last COP there was a request to organise Talanoa events all around the world and then with the long-term strategy it was also the beginning of we know the Commission has been working quite a while they do these big events. My impression is that they do these because there is need to include stakeholders in this process which is very useful because there is you know... I think that the downside of these is or the way they do it because it's such a big event, the set of speakers they don't send an email saying you know all organisations like who would you think is useful? For example, the investors, there was no investor on any of these panels which is interesting because so why not investors? And also the way they scheduled the day and the way they designed their panels because you don't get to choose in which panel you are, the Commission will say you're on this panel and also I think sometimes this is like a bit random but I think that the Commission has a strategy to put someone in a sort of panel to maybe take away the opportunity to talk about something. We sometimes think we do not belong in this part of the day I should be in another panel, so this happens. I know in general the Commission you know finds it important that stakeholders have the feeling that they are included in the policymaking and this is kind of extravagant way to bring them to show we're doing so much, we do really make efforts to include everyone to have this very inclusive process.

Q. But that doesn't mean it will be the final vision?

A. Well that's a good question to some extent all the stakeholders actually. I think that what happens at these events is that what you say on the panel is something that the Commission already knows. Because you're not going for the first time ever just going to launch advocacy priorities at this kind of events, right? So, it's a public face thing and an opportunity that we use especially our community that we use to really sort of put pressure on the EU in a public face way. But I mean the real negotiations and advocacy takes place much more behind the scene. This is not where big decisions are made, or where decisions are being influenced even. This is only where everybody gets the opportunity to kind of shed the light on their advocacy priorities and the Commission walks the way for being sort of applauded for organizing this and bringing these actors together.

Q. If you want to look at where decisions are made by decision-makers I mean the whole process in terms of setting the agenda, should we look more inside the Commission or even outside at Member states level. So is there any issue of competence, maybe the Commission would like to do more but they're realising a they can't or is the other way around like member states pushing for more actions from the Commission? So, what do you think it is?

A. Again a very good question I think on climate change the Commission tries to put proposals forward they're also taking into account also a little bit of a cautious approach as towards what is acceptable also from Member states. So what they don't want we can see it at the end of the process after the Commission has launched the proposal, it goes through the Parliament, it goes through the Council and comes back in the trialogue and then we have definitely got exactly clear that the Commission wants to make sure that member states kind of course everybody will have their own opinion, their own interests, but the Commission is very cautious of making sure there's for example not too much of eastern Europe Western Europe divide. So, this is one of the things the Commission is very cautious about they don't want to end up in a situation where it's like you know this east west divide. So, I'm not exactly sure to what extent how this exactly works but I don't think the Commission definitely doesn't work in a sort of isolated world where they don't talk to the member states. I mean they kind of have to take into account or pre-empt what member states would find a sort of ok proposal to start with otherwise there's no point because it would just get shot down from the beginning.

Q. Do you think even with the help of CAN Europe you can tell, is there any breaking points any fracture obviously compared to the past in the way in which the EU and CAN Europe as well promotes its way of looking at mitigation, looking also back to the policies in the Kyoto protocol, So is there any continuity or do you think there's a breaking point in the way in which we're making policy with regard to climate change action?

R ok I can answer this question from my perspective. I haven't been around for so long so I don't think I have the best overview. I think to the outside world what is clear is that the EU has been at the fore front of fighting climate change. You know from the very early the EU adopted also you know quite ambitious targets; they ran sort of meetings leading yeah what you said taking the lead on getting the Kyoto protocol signed etc. And actually if you look at what the EU is doing like what it's happening at the international level you can really see that there's a very interesting dynamic between what is happening at the EU level policies and what is happening at international level. So, I think that from very early on the EU has been at the table of negotiating the table of negotiations around climate change policies and they still are. To the outside world the EU is definitely I think seen or perceived

as a leader when it comes to fighting climate change. One of the teams that that commission has done I think of course we're very critical as community to a certain extent. You know by the end of this Commission's mandate they will have lot of files climate change and energy related files revising effort sharing regulation, LULUCF, ETS, Renewables, energy efficiency, markets design so really a lot of proposal for a new MFF with increased climate targets so I mean in a sense again this Commission has done quite a lot, according to us not enough but of course that's our perception. I think what is important and I think this is on the international level, so countries under the UNFCCC negotiations are expected by 2020 to submit a revised NDC so the world, the countries are kind of looking at the EU because from the very early on I think it was at G7 or G20 meeting in 20..yes beginning of this year. I think when the EU said we're going to revise our NDC well ahead of this 2020 deadline. So that's not an incentive for everybody else but it's kind of the EU taking the lead. Actually, at the next COP they're going to announce they're going to increase their targets from 40% by 2030 to 45% by 2030 and this is a consequence of this new aggregated renewable targets and (incomprehensible word, Ed.) targets. But to the outside world we would be like wow the EU has 5% more. So the EU plays a very interesting role also I can put in contact with [...] who works on climate diplomacy [...] can give you a an idea of what the EU is see at the international level how they work interact with different countries. On the outside international level, I think [...] would be an interesting contact. It's just in general that 2018-19-20 are very important years because we're looking trying to maximise, make the most out of these revised NDCs. As environmental community, we want the EU to be as ambitious as possible, this long-term strategy that the commission is working on is one of the most important tool at the moment. If we don't make sure this is as ambitious as possible, we're going to end up with not having the right tools and pathways to increase our NDCs.

Q. I have only a couple of questions and then we're done. If you're tired you can always tell me. I don't know if it's out of your competence or not, if not you will just tell me, but as you said ok you what's the type of knowledge underlying these targets?

A. You mean the scientific?

Q. Yes and what type of science? Is it natural science so you know the IPCC, the biologists, these kind of people? Or is it economics like rational actors, cost-benefits analysis? Or are there any innovative approaches from other types of science, I don't know psychology. Do you know what type of knowledge informs these targets and how to achieve these targets?

A. The EU targets or what we propose as CAN Europe?

Q. You can tell me both. You can speak obviously of CAN Europe because it's your reality, but if you know a bit more about the Commission it's fine, just what you know.

A. For CAN Europe how it works is that as a network we adopt positions papers and these positions papers are aligned with scientific standards that is basically built on the IPCC, the last IPCC report. So, this is where we start from, we had the position paper from I think our last position paper on the targets, so what should be the GHGs emission targets for 2030, 2050. Our last position paper dates back before the Paris Agreement. So, we are now working, as CAN Europe are working on revising this position paper also especially in light of the IPCC report on 1.5 degrees that is going to come out. As CAN Europe we're also part of CAN international so we stand fully behind the Paris Agreement. For the goal, the objective of the Paris Agreement is to keep global warming below 2 degrees and actually, 1.5 degrees, so this is the environmental community, for us the operating limit is 1.5 not 2. And of course, your question how you get there right? Which sectors has to come through etc. so this the process we're going through internally. It's quite difficult because which sector has to do what, also what is the EU's fair share of the global carbon budget. That's also a very difficult question answer. So once our position paper is out, I think it should be before the Commission's long-term strategy I think you can have a look because there you will see how we interpret the Paris Agreement compatibility. Ok this is how we see it. Now very interestingly the European Commission how they understanding and interpretation of Paris compatibility is slightly different so at some point what happened is that you had back in March the conclusions from the EU council with all the Member states saying we want the Commission to come out with a long-term strategy in line with the Paris Agreement and I saw a slide where the Commission has looked by the Commission I mean this European Political Strategy Centre, this think tank they kind of looked at this actually I will try to find it maybe it's easier if I can just show it to you. Why I want you to show this it because it really tells you about the concept of how the Commission....This is one of our biggest struggles I would say is to make sure that we have a strong idea of what Paris compatibility means not necessarily the same for the Commission. And also, what is interesting, within the Commission there are different ideas, so I'm going quickly share something with you, I'm just going to share my screen.

Q. Now I see it

A. Do you see my screen here? So what you can see here this is basically the conclusion from the Council from March, the member states say the European Council invites the Commission to present by the first quarter of 2019 a proposal for a strategy for long-term GHG emissions in accordance with the Paris Agreement. So interestingly here you can see how this political strategy centre has sort of like broken down these conclusions, right? And if you see what it says in accordance with the Paris Agreement, it says not disconnected from

the global action and what the others do, right? And that is quite interesting as this not how we understand it, how we understand is really about the Paris Agreement goals and the temperature objectives.

Q. So, this is their understanding, the Commission?

A. Yea I mean I'm not sure this is representing the whole Commission, but this is representing the Junker's think tank the people in charge of developing this vision this long-term strategy. So what we have seen before and now I will stop sharing my screen in term of how the European Commission works is that in their last long-term strategy the goal should be reducing emissions 80-95 % by 2050 and this is of course before the Paris Agreement and having this 2 degrees in mind. So interestingly actually I think already in 1996 really a long time ago the European Commission adopted these 2 degrees objective and enshrined that in the legislation. But a lot has happened since the Paris Agreement came along, 1.5 was much more explicit. But it looks like the Commission has never really changed their thinking, they keep looking at these 2 degrees they keep reducing emission by 80-95% by 2030 as agreed in 2014 by all the EU Heads of state. So that is like the default option. So, this long-term strategy is now supposed to look at what is Paris compatibility you know what does it really mean? We expect to see that this would mean net zero emission by 2050 at the latest and revises GHG emissions targets for 2030 because 40% by 2030 45% even is never going to get us there. So, in a recent conversation that my colleague in the community had, it looks like the Commission is not really ambitious. The modelled a pathway to 1.5 degrees, but it's a modelling, it doesn't look like it will be the benchmark. Also, one of the things the Commission does is that how they calculate. When they see 2 degrees Celsius right you know the IPCC they work with this ehm 66% chance, 50% 89%, 90%. the Commission when they talk about the 2 degrees goal they talk about 66% for reaching 2 degrees so for us that is also a problem also because for 2 degrees you only aim for 66% chance, it's not really very ambitious. So now the upcoming 6 months, the coming years are going to be crucial in terms of finally setting what the commission under, like are they going to say to go for net zero emissions by 2050? what is their interpretation of Paris compatibility? And depending who you talk to in the Commission you get different answers. Recently, I heard EU officials saying oh but you know what does it even matter if the EU emissions will never...you know even if we reduce our emissions we will never be able to ..ehm it will only contribute to in terms fighting climate change on the international level. I mean this our thinking that nobody has done anything right. Countries, like Canada Australia are not doing anything either so even the people that work in DG Clima they don't always

have the Paris Agreement as objective. While for us that is just the starting point or end point of everything.

Q. That's a tough thing. I just only have one last question and it's about, it's a comment actually it's a question out of curiosity about CAN Europe's statement at both of the events I went to and it's about your director, Wendel Trio. I never know how to pronounce it that when he spoke about changing habits and lifestyle. What's the CAN approach more in depth?

A. We have at this moment no approach as far as I know we don't even have an elaborated position on this. We will definitely dedicate part of, our position paper will definitely elaborate on this. We don't do this as CAN Europe. We don't work on lifestyle behavioural change etc. The reason why we mentioned this is because all the research shows something about especially meat production and meat consumption it's going to be very hard to reach the Paris agreement goal. And I think that...have you heard of this project called the global calculator? So maybe again I can share my screen, I don't know if this is useful for research but I want to show you something that is really that it's so striking that I don't know I can hardly get my mind around it. It's tool that allows you to play around with different kind of levels element to keep the temperature below 2 degrees. Basically what you see here is all of these different levels you see travel, and you see if you click on I will give you an idea of something random like fossil fuel you can play around and you can go from minimum abatement of fossil fuels to maximum abatement. So that means you go from very ambitious to not ambitious at all, for nuclear you can say we want to use all nuclear energy or we will depend on very few nuclear energy, so you can play around with these things. You can go so for example by 2050 we will have zero gigawatts?

So what is staggering is the difference that diet makes if you look here at quantity of meats you can look at what calories that can come from meat and you can go from 281 per person per day to 14 calories. I don't know if you eat meat but 14 kilocalories per day it's like if you get 14 calories a day per 7 in a week that's about 100 calories is really little knowing that your daily intake is 2000 so it's basically 0 calories from meat. But if you look at this graphic on top if you want to play around we want to do from in terms of global GHGs so of course it's a global calculator but if you look at global emissions per year it's just sky rockets, you will never keep warming below 2 degrees as you can see in here because this graph shows global temperature in 2100. If you're going to say we're going to be as ambitious as possible we're going to eliminate meat you see the difference it makes?

Q. no you know this is out of the thesis project, I'm facing a dilemma I eat meat but I'm very cautious about the farms where I take my meat from, because you know I live in the UK, I

live in Wales, so farmers are very close to here. What I realized is that, I'm not dependent on that, I eat it only once a week, so I do my grocery's at the local market with the farmers and when I try to compensate for the amount of iron so I buy like chick peas instead. And you look at the labels, not even supermarkets like local shops, very local businesses, and you see that even the chickpeas are imported from South America. So that poses a question. What is more environmentally sustainable, the chick-peas that have travelled from you know the other side of the world or the steak coming from the local farmers in Wales? What should I do?

A. I mean that brings of course the conversation in a different direction. There's actually research about it the least sustainable way of these type of things, quinoa and chick-peas and most sustainable local meat is still the impact of these product coming from far away is going to win from the meat. There's actually a research that came out recently I can send you the link to an article the reason why I want to show you this is that I used this example to show you why CAN Europe embraces the concept of behavioural change lifestyle, so it's very obvious that without this we will never be able to reach the Paris Agreement objectives so we cannot have the conversation. We can't just push it all on the industry, we need to think about consumption and what we actually consume as individuals and of course it's a very hot potato because who's going to make decisions etc. but it needs to start to be part of the conversation, talk about but as I said we don't have a specific position.

Q. So, you embrace it without being part of your strategic policies. That's all clear it was just my interest because that point has been reiterated both times, I went so I was just curious about it so I think that's pretty much it for now. Thank you.

Interviewee 2 18/07/2018

Q. First, would you like to introduce yourself and explain your role?

A. My name is [...] and I am the Commission's [...] I've been doing it for [...] years I started in [...] So we got to all of the IMO meetings and we actually are the liaisons between everything that happens at the IMO and all the Commission's DGs.

Q. With which DGs do you work more?

A. I'm sent here by DG Move which is the mobility and transport DG, so I report directly to them but having said that my remit is wider I do security issue I do migration issues all kinds of stuff.

Q. Do you work with DG Clima? Is there a consistent a common thread or coordination issues in the vision of each DG?

A. It's on a case by case I think certainly because GHGs emissions is such a major issue there's some sort of linkage between DG Clima and DG Move and because it all takes places at IMO I'm certainly involved with that. For example, DG Clima likes to do, outreach to the representative here so I arrange that, I accompany them sometimes I go there in their place just to those who are sympathetic to the EU position and those who are reluctant shall we say.

Q. As you are sent by DG move are in you involved in the policymaking? If so, to what extent?

A. I would say what can be translated into an IMO context, that is my role, very practical role shall we say and also in terms of outreach in terms of making sure that others understand our point of view.

Q. So I can I ask you what is the IMO point of view?

A. Of the EU?

Q. What you can say of course

A. It's basically identifying those countries that would be helpful to us facilitating discussion with them, encouraging discussion with them so that we can come more of a united team.

Q. Do you find any resistance any reluctance? How do you relate to the member states? And any issue of EU competence?

A. The EU competence is always a tricky one, the member states are always keen to emphasise if we do or do not have EU competence, it determines to an extent whether they are keen to speak or not because if there's an EU competence matter they are going to reserve their position but they are not like speaking against it. In this case the GHG emission it's not an EU competence issue apart from the MRV the monitoring reporting verification regulation.

Q. Also because with transport and maritime things are part within the policy making context of the EU Commission the effort sharing Regulation, the effort sharing that covers because you know, the heavy industry is covered by the ETS then all the rest transports buildings all the rest is included in this effort sharing legislation that is up to the Member states so to what extent do you fall within this framework?

A. I don't get involved in that because maritime is normally excluded, it's international.

Q. Because my aim at the moment is to make sense out of the European commission more widely the EU as object of research is doing because obviously you find so many different layers and set of actors all intertwined, that sometimes is it's a problem of mapping so that's what I'm trying to do is this.

A. I understand.

Q. So can I ask you what is your vision of the IMO for to comply with the Paris Agreement?

A. You have 174 Member states so it's even more difficult than the EU to get some kind of consensus. And the IMO operates on consensus or tries to anyway but if there's a majority Well I came to a vote which is for the energy efficiency design index which was agreed in 2011 and then implemented in 2013 and that's a sort of yeah technical thing in terms of trying to reduce the energy, of having more energy efficient vessels and there's also the operational side of it so I'm wondering here I realise I'm wandering from the original question. How does the IMO have to deal with this?

Q No, the original question was what is the IMO vision of to comply with the Paris Agreement, is there any strategy?

A. We have a road map, I brought a road map that was adopted at MEPC 70 for developing the Imo strategy and then just falling on from the big fight it was on an initial IMO strategy. What should I say the most reluctant member states have said this right and it sounds very logical is that what we do is that we develop a data collection system which will start in 2019 and then once we have the results of that, we will analyse them and we will see what the measures actually do. So, it puts it off to 2023. What the more ambitious IMO member states warn of I would say the EU including the open registry for an EU, which more Malta Cyprus and Greece we are still pushing for something within that period 2018-19 and 2023 so that was quite of a sort of a neat come up of strategy. We had a series of 4 intersessions over 2017-2018 to come up with a text of an initial strategy that was finally agreed at MEPC 72 in April. So, I'm sure you probably have that.

Q Can I keep that?

A. Yes you can have that. I mean within that there were only 2 Member states that made formal reservations against it, Saudi Arabia that of course would be losing its primary export market, and the US because of MR. Trump. I have to say I feel very sorry for the US guy, he has been one of the leaders up to then and then all of the sudden he had to turn 180 degrees and go to the dark side.

Q. So basically the whole strategy can be summed up into improving energy efficiency?

A. Improving energy efficiency, which yes can be sort of, there's a technical side, there's an operational side where we will have this ship energy efficiency management plan and within that we have the energy efficiency operational indexes. So that is the means to do it and the measures is the mandatory measures. These are the things we have to still look at and there will probably be a fight over whether we adopt any mandatory measures in advance of 2023. Within this strategy we need to have an impact assessment before we can actually adopt any measures and the impact assessment is pretty wide ranging it says in there.

Q. Levels of introduction? Levels Ambition, guiding principles

A. And then there is an impact on the states, all the socio and economic progress and development take all of that into account before you can do any kind of monitoring measure. It's a big ask as Member states can always say oh you haven't taken into account xyz. So, for the moment the MEPC73 in October what we will be probably talking about is what's at the back of the strategy. It's the action plan? It's a very basic one have something more concrete and expanded. At the last MEPC72 in April Norway came forward with a paper and also lot more detailed about what could be done so that is something we would like to push at MPC73 so the Norwegian paper at MEPCs 72, that's the one we would probably try to resurrect and push.

Q. What about the international context so for example when there are the negotiations, do you participate as a delegate of the European Commission within the IMO?

R. I'm a delegate of the European Commission, I'm not part of the IMO Secretariat no. Although we work very well with the IMO secretariat and indeed another aspect of it, let's see maybe I could say what counts as initial strategy as MEPC72 to show you the pressures as we shall say that brought my Commissioner, the transport Commissioner, not actually the climate action Commissioner, the transport Commissioner she came and she has a good relationship with the IMO secretariat general a new a guy called [...] she came for the first stay of MEPC72 and her objective was first to encourage the EU Member states to be active generally in the plenary and in the working group and to be ambitious. Secondly then to negotiate and discuss in the sidelines with as many reluctant or wavering delegates as possible which she did she went for Liberia for Panama , for Russia she was going to go for Argentina but she didn't have time then she was also trying to reassure some Pacific Islands who are in an existential crisis because if nothing happens they will not be there anymore so ehm she reassured the guy from one of the Pacific Islands which I can't recall Marshall Island that we sort of continue the ambition. At the same time, she was there she was also talking to the NGOs and to the Chair just to encourage to be ambitious and to the chair of the working group to encourage to be ambitious. So, she was pushing from her side. we also had a delegation an 8men delegation of the European Parliament also came and also want to see the chair of the plenary the chair of the working group, the secretary general, NGOs they want to see the large flagged states, the reluctant flagged states, the high ambitious flagged states and that was my job as well so running around everywhere I was always there just making sure that they had the chance to put their case and for the other side to put to put its case particularly reluctant member states because some of them have clear concern, if they're distant from the markets, any measure put in place will actually disadvantage them which

was particularly the case of Brazil for their mining interests, with Chile which was more about fresh fruits exports, for Brazil they thought if there is some kind of restrictions saying on speed, then Australia would have an advantage over Brazil and selling its minerals to China.

Q. There are maybe two things I would like to ask. I would start from the very general because it's basically building on what you're saying. Can you define more precisely the ambition. You mentioned it a couple of times.

A. Well the EU ambition?

Q. Yes

A. An objective of 70% and pursuing efforts towards 100% reductions of GHG emissions by 2050 compared to 2008 levels. So that was our ambition, that was our initial goal. We knew we're coming in high because it's probably we will have to come down. And that's what happened, I mean we didn't have any regulatory compulsion but all Member states after a considerable number of meetings, all member states have signed up to it on the understanding that this was only an initial bargaining stance. So then we've got 50% reduction by 2050, with an objective of sort of decarbonisation I think it is by the end of the century on 2008 levels. So that was what we've ended up with and still it's quite amazing that we actually have it. Even though the strategy is not a legal document it's a sort of a statement to the world.

Q Is there actually a clear vision on how to achieve it because one thing is setting the target the other thing is how to get there.

A. Which is why we have in this strategy we have a whole list of candidate measures and our DG Clima colleagues have drawn up what they call contractor go through short term measures and in fact we're going to sort of present these short term measures to member states as IMO Member states just to see their response. We were going originally to present it in July but there are so many meeting at the IMO we couldn't... so we're going to present mid-September, so it's just a test people's reactions. So this is one of the aspect of the short term measures, market based and whether shipping should or should not go through an ETS. So that again we're using the European Parliament like a sort of bad cop, the one that was sort of you know if you're not doing anything then we're going to do something at European level which has worked in the past it's not really appreciated but it is a way of provoking action because with the RMV we were doing it as a pilot project but also for putting pressure on the IMO and then the IMO came up with its data collection system, which is not as transparent but then we're dealing with countries around the world who are not so, where transparency is not so important. Put it that way.

Q. It would be interesting to ask one thing if there is a (obviously you can say no I cannot reply to that) if there is any willingness to address the big elephants in the room or is there something that is really untouchable. For example, I was at COP23 last November in Bonn and because you mentioned the European Parliament so basically I was at one of the events one of the side events there was one of the international transportation forum and as a moderator there was Pat Cox and he said” but we have to address the big elephants in the room no one is telling”. China was there DB Schenker was there so many representatives. We never address the problem of the global supply chain, so is that the untouchable

A. By global supply chain what do you mean?

Q. What he meant and how I interpreted that is basically the fact that we depend obviously on thinking globally and not at thinking of reducing the trips. By making more efficient, the more efficient you get the more trips you make which is bad, so actually re-learn how to think more locally in some productions and consumption patterns

R. Well that indeed could be something that is more in national action plans and that in a different context as you mentioned the, I can’t recall the director that you mentioned.

Q. Pat Cox he was the President of the European Parliament.

A. Yes but you mentioned at the start a director which looks at a sparse sector of industry and obviously hopefully that will cause them to think more locally. So, the Chinese are very keen on national action plans and for that we’re taking into account the strategy but for us we think in international shipping we made something ourselves for costs of transport, but no we’re doing something else here. The global supply chain, think locally, I’m not sure whether DG Climate are dealing with it.

Q. I’m not sure either that’s why I’m asking

A. I’m sure somebody somewhere in the entire DG is dealing with that, but for me that’s just the shipping aspect of it...one thing again in terms of trying to get everybody on board, we have got a technology transfer project called MTCC maritime technology cooperation centre. Anyway, I give you that it’s just something we give 10 million and it’s been managed by the IMO secretariat. It’s setting up a basically it started in 2015 and got going in 2016, it’s five centres, mostly in universities one for Asia, one for the Caribbean, one for Africa one for Latin America and one for Pacific where we have set these centres up with the ambition to bring in energy efficiency technology. So that on a local basis they can promote projects that would help reducing GHG from ships. For example, the African project they have introduced called IRONING, whenever ships come into port instead using diesel, you can take electricity from the local source and in that way, it keeps going but it doesn’t pollute. Of course, you can always say ah yes, but people are making electricity but that’s not a

matter of...we're dealing with ships. The Chinese have taken a ready run with it, they have expanded their operations, they have a satellite centre, 3 in Cambodia, Burma and Bangladesh. They have national Conferences, regional conferences just to sort of promote there, where people can deal with energy efficiency issues from the perspective or from their own national perspective so yes that's what we have been investing in. And we don't put a sort of you have to do the same things for all these centres apart from experimenting with data collection from ships, they're like sort of go ahead with various energy projects there would be suitable for the local regions shall we say. So, it seems to be working well. And we want to continue it, I mean China because the Chinese are investing so much in it we might sort of let them take the burden themselves and we can invest in other areas.

Q. As long as they finally took initiative.

A. Yes exactly this is one of the positive things from our side and the IMO it's good that they're actually keeping track in terms of everything, the money goes in only if they've got proof of results so I mean we work well together with them

Q Do you see that's compatible with that well below the 2 degrees by 2050

R Every little helps.

Q. Ok

R (laughter)

Q And we're not even mentioning the 1.5

R I mean the 1.5 has been mentioned quite a lot by the South Pacific people indeed

Q. Of course because also last time, you know 2 weeks ago I was at the EU long-term strategy for a modern and clean economy, yes exactly people worked on the assumption of the 2 degrees and then one said during the questions "but we're not even taking into consideration the fact that it says well below 2 degrees so it's a different thing, however vague it is well below, and possibly the 1.5".

A. Yes indeed which is fine I mean in the upcoming meeting in October we will look at the action plan I hope it has something slightly more developed than that and we will look at we will be pushing for short term measures already. The reluctant member states will say after 2023, whatever we have our results our data collected and this is an analysis and then there's considerations for the measures for us as I just said push it that off to 2030 and for ships because life of a ship can be 30 years we want have something in place earlier.

Q. And also for the climate situation I think it was 2030.

A. Yes, it's too late. So, we'll be pushing for short term measures at the next one in October.

Q. So are you going to be part of that proposal that is going to come out in November? The EU Commission said that they're going to publish a proposal about the long-term strategy shortly before going to COP24.

A. Alright that would be something slightly broader. No, I mean COP I am not involved in COP but what has happened. So yes, there is something from my colleagues in transport and in climate action to go there but not from me. I just deal with the results.

Q. Also because if you're dealing with ships obviously, I can't ask how you relate to the international aviation things and all the problems.

A Oh the aviation yes. I mean no it's a different world shall we say, there's only a certain number of airlines. Whereas with ships, shipping is slightly more complex you know you can have owners you can have charters you can have different flags depending on who your charters you know seafarers from different countries it can be a bit of a mess whenever it comes to who is responsible just sort of finding back through the chain if an accident happens, in fact there is still a cold case ongoing about ehm the other one Prestige that's about clean-up costs, who pays, so yes it can get rather complex.

Q To add another level of complexity. In your sector what is the place of renewables.

A. That's a good question. At the moment the EU is investing quite a lot in terms of alternative fuels. we're looking at methane, ethanol, hydrogen fuels cells, ehm we will be doing a presentation of that at the it's called the CCC it's a committee which will meet in September we've been doing presentations regularly, currently we're dealing with hydro fuel cell. We want to come out and show that alternative fuels and the use of alternative fuels is possible. We've got a number of EU programmes. We have various research programs. For example I'm trying to think back now there's an all-electric ship, that's a ferry that goes in Norway but we've had once a sort of (incomprehensible word) fuel ship that goes between Germany and Denmark, we've had an all-electric one that has been converted from these are going between Denmark and Sweden, we have a different one going to Finland and Sweden on a completely different fuel. So, they're showing their way in terms of what can be done we have sort of infrastructure for alternative fuels Directive. I'm not sure it's a Directive or Regulation where we encourage infrastructure in all coasts of Member states so that it was primarily to encourage LPG and there are quite a few ships now so we want to make sure that this alternative infrastructure is there and can be used and ships can fuel.

Q. Exactly is it there or does it have to be?

A. because if it's not there and people who uses that fuel, I know the LPG is good in terms of if it gets rid of sulphur oxide and nitrogen oxide, but it is slightly better, not the best. But if we want to get Member states used to thinking well let's have alternative infrastructure

for alternative fuels at least we have something in place for LPG and they could think of how they can sort of use the same for other alternative fuels.

Q. What's the problem now that prevents them from using them?

A. I think it's just shipping is a conservative industry so even at the moment just a bit changing from heavy sulphur fuels oil to light sulphur oil in 2020, that is causing a lot of consternation. So, it means also that they might have to scrap some ships, and this could be an opportunity for them to look at not just low sulphur fuels ships but also alternative energy ship. So, we will see how it goes yeah. But in any case, this low sulphur fuel in 2020 no matter what and this is what we are ensuring it was something that it was agreed in 2008 thinking that oh 2020 is a long way. And then yes industry became to get nervous coming to 2014-15, gosh we might really have to do this. Sorry I'm diverting...but we had an EU director that copied what I said in the IMO but the IMO had a left eye closed on if it's not going to be ok by 2020 we can postpone it 2025. Our director didn't have that in it and so we have been very very pushy in terms of wanting a 2020 cap. We got it, it has been decided and now it's just a matter of implementation and we got it it's been decided and now it's just a matter of implementation. Reluctant member states I'm sure they would say there's a safety concern somewhere. If there's not a safety concern maybe fuel oil won't be available maybe and what they going to do maybe throwing a lot of problems just to try and ensure that things will be pushed back but we're dealing with it. We've had all the part of the industry here keen to see everything put in place because I would wait for another 5 years and you have the same kind of stuff, we got everything in place, they can now have scrubbers that would take out the sulphur or you could have engines that actually do that with sulphur fuels these are the two choices, or you could go towards alternative fuels think for the future. This is our way of pushing.

Q. What was the situation, did it change for the better in the international regime since the Kyoto protocol and then with the Paris agreement it got even worse because it went towards a soft governance

A. Yes, I mean in 1997 just the IMO has been just of sort talking about it and only in 2011 they found it they finally come up with some kind of monitoring measures EDI which is the efficiency design index. For us this could o be improved because a lot of the designed ships already meet the requirements for a couple of phases down the line so why not reducing it even further? Of course the industry says yes we did that in advance and now you know we're ok for about 10 years I'm sure you can improve energy efficiency at that level ,I'm sure you can improve even more, we just want to keep turning the screen in terms of design efficiency.

Q and we the use of alternative fuels that you mentioned does it mean cooperation with the chemistry/ chemical industry, is there any issues?

A. No, I think they are I mean all the industry needs to be at themselves more as an energy industry rather than oil industry. But of course, producers of oil of oil are not that way inclined Saudi Arabia would never be cooperative that way.

Q. But for example to use the hydrogen fuel.

A. Yes at the moment, it is only at a studying phase. Others are a little bit more advanced, like ethanol and electric but hydrogen is not, but it will come.

Q. Hopefully before 2030.

R. Yes yes, we got plenty of time.

Q. What would you say would be the biggest challenge in the sense of in terms of convincing a sector like the oil industry?

A. I think the oil industry they already know that there is a need to diversify.

Q. So is there a big lobbying in that sense?

A. I mean for example the oil industry has [...] which looks at safety issues to do with oil tankers types of I mean after all of this the difficulty in the 1970s and 1980s oil tankers going down they are very keen to ensure that their boats, their ships are safe. And not only safe but yeah that they are part of the solution and not part of the problem.

Q. Like compromise.

A. I think the main challenge would be with the ship registries and a lot of countries do not have the resources or are led by the ship owners on the registries in terms of their policies ehm this was the case with the Pacific islands states. But as it became a more existential crisis for them so all of a sudden, the registries opinions had to evolve to actually reflect what the island was thinking so yes, we have seen a greater evolution over the past 3 years. It started with a few countries and then just it has the majority of that, in fact, all of them, even the ones who were at least reluctant formally, (incompressible word Ed.) super keen on reducing GHGs. We have organized meetings here between EU member states and ehm Pacific Islands states in advance of any of the meetings to sort of coordinate our ideas. After we had a meeting between them without letting others, that is Japan, USA, New Zealand and Canada and Australia. Then so the we would discuss thoughts about where we would push for our GHG reductions goals in that particular meeting but since the US has changed its mind, first of all went silent and then, that was after Mr. Trump came in, and then after it got more availing to take then sort of adverse stance, it would become kind of awkward to have them in the same group. Yes, the challenge is to convince the reluctant member states to support more ambitious measures.

Q. Are there many reluctant Member states? I'm not asking who because it might be a contentious thing so I'm just asking...

A. Yes there are hardcore...and some of them are reluctant because of trade and if you can persuade them it was a fact that all of south America or the Latin America countries were very reluctant, they were led by Brazil. Brazil is completely against reducing its GHG emissions and they also have sort of CBRCD something but differentiated. Basically, CBDRC I just have a mind block at the moment I can't recall but it's basically saying we should be treated differently because we're developing states. Whereas IMO says every state every flag ship there's no more favourable treatment. We're all treated the same. So trying to import these things from the UNFCCC into the IMO is very difficult. And most member states don't want it apart from those who benefit in terms of I don't know if they have a particular route that they sort of say well we should be treated differently or in reports there could be a different treatment in somehow. But as I was saying Latin America used to be very reluctant and then by us going to them, I mean we have talked to Brazil as well it was lost cause then you know they thought ah there is an introduction. Chile used to be very much against, and Peru, but they have subsequently seen themselves as bridges, so they have been trying to bridge the gap between Brazil and Argentina, the strongest against it, and ourselves the EU. So that was one of the ways in which the initial strategy was successful in that we did have these intermediaries and also partially due to the fact that we did interact with them beforehand. There's also the fact that every 2 years there is an assembly and in that assembly, there is an election of the members for the members of IMO Council there are 14 members out of 174 so people have to be seen to positive. And it's useful that it's every 2 years because then you can play on it, not that sort of you know the EU itself the Commission has no influence over who votes, it's just normally the foreign ministries on the recommendation of the transport ministries of each country that says which country should we look for.

Q. Ah yes but because you speak of within the IMO so the countries the European countries are they represented singularly or as the EU?

A. Yes this is another element that from time to time we had to sort of push for the commission to represent the EU on issues where there is an EU competence like the FAO or other places. But here actually it works quite well. We are the ones at the back making sure that we have coordination meetings for every meeting almost all meetings we should say ehm we've put forward positions we have a debate with member states sometimes positions are changed or deleted sometimes they sat as we proposed them and then we go out into the meeting the country that is taking the presidency just speaks it normally speaks first all the

other countries coming and we have a deliberate policy of not speaking because it's a member state playground and let them. But if they go against the position we go down and make sure they recognize that this is not a.... So, if they have agreed something, they are going to go down that line then we're like a referee we say

Q. I was going to say the teacher telling off the bad students.

A. Sometimes it is like that but that is thankfully quite rare yea I mean we do it from time to time.

Q. Because I was curious inside Europe especially on the Mediterranean

A. In terms of GHG I mean this a coordination document for getting an initial strategy ehm you can see I mean those are all positions some have been deleted some have been amended and all the rest of it but once they have been agreed then you would expect to deal with them so I'm sorry but I can't get that one out.

Q. It's ok, so that's pretty much it. Thank you so much.

Interviewee 3 (11/10/2018)

Q. Io sto cercando di contestualizzare il panorama di politiche in cui stiamo lavorando nel quadro della governance climatica internazionale. Mi sto focalizzando al livello delle istituzioni europee, quindi Commissione prevalentemente voglio capire il ruolo del Parlamento, il Consiglio ho capito che è inarrivabile. Però tenendo comunque come panorama di riferimento l'ambito più grande degli accordi di Parigi. Non vi parlerò del mio approccio teorico metodologico che in realtà è un approccio di filosofia del linguaggio di stampo psicanalitico. Non parleremo di questo perché veramente ci servirebbero 3 giornate e io vorrei semplicemente capire e contestualizzare quello che sto vedendo, in relazione a quello che ho visto per ora alla Commissione. Quindi per esempio quando io vado a vedere i stakeholder events ecco per esempio adesso che io sappia la Commissione europea sta preparando era in questi mesi intenta a preparare un report dicevano dell'impatto economico e sociale perché devono preparare questa roadmap che uscirà a gennaio. In realtà credo che il rapporto venga pubblicato prima della Cop24 non so se sia provvisorio definitivo però in realtà non potevano dire niente di concreto quindi organizzavano questi stakeholder events, quindi ci sono ONGs, c'è Business Europe che so che fanno una bella lobby, così ci sono imprese che promuovono il rinnovabile. Però non si sa di questi chi questo effettivamente andrà a informare il discorso che sottende il modo in cui la Commissione Europea pensa a mitigare e quindi a decarbonizzare. Quindi io vedo la Commissione che lavora in un modo che pensa in un certo modo, prepara perché poi le proposte arrivano da là ok e in tutto questo

il Parlamento che è qua, vabbè una volta al mese c'è la plenaria una volta alla settimana o ogni 2 settimane si incontra e quindi non riesco a connettere i vari puntini.

A. Ci sono due livelli diversi. Uno è quello che riguarda proprio le proposte della Commissione di tipo legislativo che sono le Direttive e i Regolamenti. Poi ci sono le proposte di indirizzo che possono essere le roadmap. Ieri abbiamo dato la plastica che era legislativo a gennaio c'era la strategia dell'UE sulla plastica che non era legislativo era una strategia. Cioè la Commissione dice noi vorremmo muoverci in questa direzione qua e quindi sono due livelli differenti. Nel primo caso cioè quando non parliamo di legislativo la Commissione esprime degli obiettivi dei percorsi che vuole percorrere che non hanno un effetto ovviamente diretto perché non è una legge, è semplicemente un'idea e il parlamento su questi si esprime. Cioè dice, noi come Parlamento abbiamo fatto una risoluzione prima costruita all'interno della commissione ENVI poi portata in plenaria un paio di mesi fa che praticamente è il parere del parlamento. Cioè il parlamento dice ok riguardo alla vostra strategia noi vi diciamo che qui dovrete essere più forti che qua va bene così eccetera.

Q. Quindi è consultivo in questo senso

A. Sì non è vincolante. Per avere diciamo la voce anche di un altro organo europeo rispetto alla commissione e di questo poi la commissione come dire.

Q. Prende atto?

A. Diciamo, detta brutalmente, può farne quello che vuole cioè anche niente però in realtà è un parere speriamo venga tenuto in considerazione

Q. Altrimenti a che cosa serve il parlamento democraticamente eletto.

A. Invece poi ovviamente questi che sono i percorsi legislativi, in parte, non tutti ma in parte, vengono tradotti proprio in pezzi di legislazione che possono essere Direttive o Regolamenti. Questo a seconda della tematica. Una volta che la Commissione li propone e li può proporre solo la Commissione a seconda della tematica vengono assegnati a una Commissione parlamentare. Quindi se la tematica è ambientale passa per la commissione ambiente. La commissione ambiente lavora sul testo della Commissione e lo modifica ovviamente all'interno della discussione politica fra i partiti cercando di migliorarlo. L'intento è quello ovviamente però poi qualcuno può pensare che a volte lo peggiori anzi spesso purtroppo succede. Quindi dalla commissione esce il testo della Commissione europea modificato dalla commissione parlamentare e questo testo va in plenaria dove può essere modificato ancora. Perché io che per esempio non sono per dire non sono in commissione trasporti, quindi non lavoro su quello, magari in plenaria c'è qualcosa che vorrei dire sui diesel eccetera. Quindi c'è anche la possibilità con vari meccanismi di modificare il testo in plenaria. Molto di meno di quanto possa fare la commissione specifica. Una volta che il testo è passato in plenaria

quella è la posizione ufficiale del Parlamento europeo. E viene portata alla negoziazione successiva cioè alla negoziazione fra Parlamento, Consiglio e Commissione che si chiama Trilogio in cui deve uscire il testo definitivo. Quindi ognuno tira a seconda dei propri interessi. Ovviamente il Consiglio rappresenta gli stati membri, quindi in genere è l'osso più duro da combattere. La Commissione è l'organismo legislativo più importante il parlamento rappresenta i cittadini perché è l'unico organo eletto.

Q. Il Parlamento a quel punto deve mediare tra Consiglio e Commissione e rappresenta i cittadini che si sentono un po' distanti da queste istituzioni.

R. Sì beh in realtà poi alla fine la distanza è aumentata dal fatto che primo vabbè che questi meccanismi da fuori sono difficilissimi non solo da comprendere ma anche da conoscere. Cioè che sa qual è il procedimento attraverso cui ci si svolgono questi...

Q. E infatti questo che volevo chiedere, magari uno studia l'iter legislativo dal manuale di diritto europeo...

R. No, appunto secondo me solo chi ha un interesse specifico. Io stesso quando sono entrato qui dentro all'inizio ho dovuto imparare quali erano i passaggi di questo percorso che ho appena detto e penso che sia così anche per molti deputati nuovi. Cioè all'inizio non si sa nemmeno quale sia la catena dove sono i punti critici, poi dopo si impara. E l'altra distanza è data dal fatto che l'unico organo che rappresenta direttamente i cittadini perché è eletto dai cittadini tutto sommato ha un potere limitato. Nel senso che a me cioè capita spessissimo che i cittadini vengano e mi dicano "ah ma voi però dovrete far una legge per vietare non so le cannucce di plastica" per dire. E io gli posso dire, io non posso farlo. Cioè non ho nessuno strumento che mi possa permettere di fare una cosa del genere. L'unica cosa che posso fare è fare pressione sulla Commissione europea sperando che loro facciano poi dopo ci lavoro nel momento in cui passa al Parlamento europeo. A volte, non so quante volte possa succedere, però nelle Commissioni c'è la possibilità di inoltrare dei rapporti di iniziativa. Cioè è una cosa tipo io deputato vorrei appunto che venisse fatta una Direttiva per vietare le cannucce di plastica, la propongo alla commissione ENVI, se loro me l'approvano io la scrivo la faccio e poi diventa l'iniziativa. È un documento che viene dato alla Commissione dicendo guardate che la commissione ENVI vorrebbe fare una legge per vietare le cannucce di plastica. Poi dopo loro ne fanno quello che ritengono opportuno.

Q. Esattamente comunicate con le DG? O a livello di Commissario, per esempio Cañete.

A. Dipende delle DG ovviamente. Ogni volta che si lavora su un file in genere ci si incontra con i rappresentanti della direzione che è legata a quel file per un confronto. Ci spiegano perché hanno messo certi provvedimenti piuttosto che altri oppure si chiedono chiarimenti ecc. Poi a volte per certe questioni si può anche chiedere o per via scritta o con molta più

fatica anche chiedendo un incontro anche direttamente al commissario. Però con le commissioni è normale nel senso che questo tipo di rapporto avvenga. Molte volte sono loro stessi che quando un report sta arrivando in commissione chiedono a membri non a tutti i membri ma i rapporteur di quel report “incontriamoci così poi vi spieghiamo alcune cose, vi diciamo perché abbiamo queste posizioni”. Questo è un rapporto normale. Gli incontri con il commissario sono molto più eccezionali diciamo. Non è facilissimo.

Q. Ah ecco beh sì immagino. E riguardo a quello che ho visto ieri. Queste ore di votazioni continue

A. Non è facilissimo, lei giustamente aveva dei dubbi perché ha visto fuori dal contesto. Senza lista di voto e senza compromessi è difficile seguire. Loro votano i compromessi e poi votano i singoli emendamenti che rimangono fuori.

Q. Quindi per esempio quando c'era il punto sulla plastica, ho visto che c'erano tanti compromessi che sentivo però in linea di massima si può avere un'idea sul perché ci fossero così tanti compromessi.

A. Allora innanzitutto quando il report, quando la proposta legislativa arriva in commissione viene assegnato un relatore che è quello che deve fare il lavoro principale di inserire le sue modifiche e i suoi emendamenti. Il relatore ovviamente essendo un deputato, è rappresentante di un gruppo politico quindi ha probabilmente idee diverse da quelle degli altri partiti politici. Quindi oltre al relatore viene nominato un correlatore per ogni partito politico in modo che seduti al tavolo fisicamente seduti al tavolo intorno a quel file ci sia un rappresentante per ogni gruppo politico. Questi nella prima fase fanno degli emendamenti, ognuno fa i suoi, io come Verdi faccio gli emendamenti che so che i Verdi vorrebbero fare, PP fa i suoi ecc. Però diciamo che in una proposta di direttiva articolo 4 ci siano tutti i partiti politici o la gran parte di loro hanno emendato quell'articolo, cioè hanno voluto modificare quell'articolo. Allora se noi andiamo a votare i singoli emendamenti, il primo che passa butta giù tutti gli altri cioè la posizione dei Verdi vince, le altre non vengono neanche votate perché l'articolo è già modificato, ma non si arriva quasi mai a questo perché se sullo stesso articolo ci sono emendamenti di tutti i gruppi politici si cerca il compromesso. Quindi viene scritto un testo di compromesso che tenga conto un po' delle esigenze di tutti e poi si discute fra i vari relatori per cercare di sostenere il compromesso. Cioè il compromesso serve proprio per raggiungere un compromesso su specifici punti dove ci sono emendamenti che arrivano da più gruppi politici diversi e se passa il compromesso diciamo, tutti gli emendamenti che erano stati fatti su quegli articoli non contano più, non vengono neanche votati perché a quel punto si è raggiunto il compromesso che è quello che diventa il testo definitivo di quell'articolo.

Q. Ok, sì non è facilissimo ecco infatti ho registrato così poi me lo ristudio così mi è molto più chiaro. Invece oggi che per esempio c'è la parte di discussione cioè cosa succede quando non ci sono queste riunioni, perché ovviamente uno qua io vedo hanno dei fogli quindi è roba preparata cioè sono interventi preparati in altre sedi, in quali sedi, nel senso a livello degli stati membri. Per esempio, quando ha parlato la 5 stelle quella è la posizione ...

A: So che all'ordine del giorno c'è un punto che riguarda l'inquinamento marino faccio per dire ed è discussione quindi in realtà si discute semplicemente. Cioè ogni gruppo o anche ogni deputato dice la sua opinione, secondo me si dovrebbe stare attenti a questo punto di qua eccetera è veramente una vera e propria discussione aperta dove tutti possono dire quello che vogliono. È chiaro che su quel punto lì per esempio a volte ci sono molte cose da seguire che cioè se è un argomento che io conosco bene entro in commissione e dico quello che devo dire. A volte succede che chiedo a [...] che si occupa di ENVI c'è la discussione di quel punto scrivimi 10 righe di quello che vorremmo dire che è la posizione dei Verdi che sappiamo, così quando arrivo ho un'idea di quello che si potrebbe commentare o di quello che devo trasmettere agli altri essere la posizione dei Verdi. Quindi se a volte vedi che leggono è perché semplicemente avendo mille cose uno l'intervento se lo prepara cioè non ce l'ha in mente lo deve leggere lì per lì ma è proprio una questione pratica se intendi questo come intervento. Le discussioni che hai visto sono discussioni proprio di tipo quando arriva diciamo un nuovo file dalla commissione europea in cui' si discute appunto l'ho letto e secondo me qui va bene qui va male eccetera poi dopo viene assegnato a un relatore come abbiamo detto il relatore si prende un po' di tempo e poi prepara la sua proposta cioè i suoi emendamenti che sono solo i suoi a quel punto. Lì in genere c'è un altro passaggio cioè i deputati dicono ho letto gli emendamenti del relatore e secondo me non vanno bene oppure vanno bene questi e questi altri. Sono momenti di discussione anche per scambiarsi informazioni anche perché poi quello che secondo me è importante da capire è che in certe commissioni in particolare come ENVI dove gli argomenti sono così ampi e così vasti non si può essere assolutamente esperti di tutto. Molte volte le informazioni che arrivano a un deputato si devono complementare con quelle che arrivano da altri deputati. Non so io ho incontrato i produttori dei bastoncini di plastica del caffè veramente un paio di settimane fa. Magari altri deputati non li hanno incontrati quindi se io durante la discussione dico mi hanno fatto notare che ci sono delle aziende che producono solo bastoncini di plastica e se noi li vietiamo queste aziende devono cambiare mestiere questa è un'informazione che magari a qualche altro deputato può mancare quindi nel momento della discussione queste cose vengono fuori in qualche modo. Quindi uno si fa un'idea più completa perché l'idea completa su tutto lo scibile che passa per ENVI non ce la puoi avere. Già considera una cosa

che un deputato si occupa di tanti soggetti diversi appunto in commissione un'intera unità della commissione si occupa praticamente di un solo file di un solo file soggetto. Più che di un solo file magari sulla plastica c'è l'unità che si occupa di quello quindi sono dalle 12 alle 16 persone che si occupano solo di quello. Magari differenziandole per il soggetto generale è quello però ogni soggetto implica tutta una serie di articolazioni. Mentre invece al contrario un deputato da solo magari si occupa in quel momento di 7-8 file contemporaneamente e sono immensi, per cui i file qui sono 200 e non è possibile avere tutti i file in mente per cui i deputati ripartiscono tra di loro i vari file così ognuno di loro ha di solito 5 -6 file. Ad esempio, i punti che hanno discusso stamattina io non sono né relatore né correlatore quindi o ho un interesse veramente specifico per quei temi o stare ad ascoltare per me queste discussioni io non conosco la materia perché non sono file che ho seguito. Quindi per me è una perdita di tempo stare lì a sentire persone che parlano anche nello specifico di cose che io non conosco perché io non posso conoscere tutti i file che passano per ENVI conosco soltanto quelli su cui dopo di fatto lavoro.

Q. E poi in plenaria come funziona? Perché in plenaria ci siete tutti?

A. Sì in plenaria ci siamo tutti, sì allora normalmente durante le discussioni intervengono in genere solo i deputati che hanno lavorato sul file. Infatti, una cosa nota che dicono sempre tutti i cittadini che vedono le immagini in tv della plenaria durante la discussione la plenaria è vuota. Ci sono 20 persone ma perché sono i 20 deputati che hanno seguito quel lavoro lì. Cioè chi lavora in commissione cultura non sta ad ascoltare la discussione di chi lavora in commissione pesca per dire, non ne sa nulla insomma. Invece poi al momento del voto le liste di voto vengono preparate invece proprio dal gruppo. Ci sono i tecnici di policy che preparano le liste di voto io per esempio ricevo le liste di voto in plenaria seguo meno più meno più ma la stragrande maggioranza di casi io non so cosa sto votando perché sono file che ha seguito qualcun altro. Se no dovrei conoscere duemila file contemporaneamente. Per cui c'è l'indicazione del gruppo, si sa che il gruppo più meno più meno vota in base a quello indicato. Se sul file ho lavorato io, sarò io con i miei lavoratori a suggerire i voti e quindi ognuno per ogni suo file suggerisce al proprio gruppo politico qui dovremmo votare in questo modo qua e alla fine si mettono insieme e vengono fuori le liste di voto della plenaria. Adesso ti sto dicendo tantissime cose concentrate in pochissimo tempo.

Q. Ci dovrò tornare, ok sì va bene. E poi allora alla plenaria si vota, verrà preparato quindi tutto un altro file e quindi lì poi c'è il trilogio.

A. Dopo c'è il trilogio

Q. dopo

A. A volte c'è anche prima però adesso non complichiamo le cose diciamo che dopo.

Q. Diciamo che in linea di massima va dopo e quindi nell'ordine va prima alla commissione e poi al consiglio.

A. Dopo il passaggio in plenaria? Dopo va in Consiglio e dopo dipende ritorna in Commissione se viene accettato o rigettato però dipende anche questo però dipende. Allora in teoria il trilogio è proprio una stanza in cui ci sono un rappresentante

Q. È fisica proprio come cosa non è metaforica.

A. No è proprio una stanza in cui c'è il Parlamento con il relatore e i suoi collaboratori. Il Consiglio quindi con la persona in quel momento incaricata, la Commissione e si negozia. È che lei forse voleva sapere se il file fosse rigettato o meno questo era?

Q. Sì oltre alle varie cose, le procedure

A. Quella è una possibilità perché poi alla fine il trilogio è più una discussione tra il Parlamento e il Consiglio, perché in realtà la Commissione il suo lavoro l'ha già fatto quando ha fatto la proposta iniziale quindi è lì presente, viene molto spesso consultata ma chi veramente negozia è il Consiglio e il Parlamento. Però può succedere che appunto alla fine delle negoziazioni viene fuori un testo definitivo e la Commissione dice questo qui è talmente lontano rispetto a quello che noi avevamo proposto all'inizio che per noi non va più bene e lo ritiriamo.

Q. Ci sono degli esempi dei casi eclatanti di differenza di vedute?

A. Tantissimi poi fra l'altro al Consiglio alla fine spesso testo è stravolto.

Q. Immagino ecco

A. beh adesso io non vorrei è una considerazione quasi più politica

Q. Quello che si può dire si può dire quello che non si può dire non si dice non c'è problema.

A. Io dico per le cose di cui mi occupo io che in genere sono appunto legate all'ambiente io lavoro in commissione ambiente e in commissione pesca quindi legate insomma allo sfruttamento delle risorse dell'ambiente. Normalmente per quello che mi riguarda le proposte della Commissione in genere sono buone. Molte volte il Parlamento riesce anche a migliorarle, non sempre in Pesca non tanto ma in ENVI sì. Il Consiglio è il vero ostacolo, cioè nel momento in cui loro devono tradurre queste cose devono portarle agli stati membri. Loro frenano perché dicono perché applicare diciamo le normative, le Direttive come le propone la Commissione europea è un impegno grosso. A volte vuole dire rivedere certi tipi di industrie, rivedere le modalità con cui si sviluppano certi tipi di prodotti, quindi ovviamente la pressione degli stakeholder è molto forte sugli stati che poi la fanno sul Consiglio. Quindi il Consiglio è quello che in genere è quello che frena.

Q. E sulla Commissione anche, fanno lobby.

A. Beh il Consiglio sono alla fine gli Stati membri quindi alla fine fanno su tutti. Poi anzi in ambiente ci sono forse meno difficoltà rispetto ad altre commissioni che non so tipo AFET, dove per esempio appunto se tu pensi alla politica di difesa dell'Unione europea una volta che certi testi arrivano in Consiglio a volte vengono completamente stravolti perché le posizioni degli Stati membri sono diverse e quindi c'è sempre questa lotta fra Commissione e Consiglio e alla fine spesso i testi vengono ritirati per questo. Quindi per ora a livello di politica di difesa dell'Unione europea magari in ENVI è diverso poi appunto è una commissione più legislativa cambia tutto.

Q. Ho capito. E parlando invece poi facendo un salto alla governance internazionale quindi a livello di COP accordi di Parigi ecc., perché sono stata alla COP23 per un evento a cui vado una negoziazione che seguo me ne perdo altri tremila quindi a meno che uno non vada in team di ricerca farselo da sola è un po' difficile specialmente la prima COP dove veramente mi sono sentita persa però non ho visto il Parlamento.

A. no non l'hai visto perché non è un negoziatore il Parlamento in realtà non ha ruolo nella COP. È un osservatore.

Q. Anche ai side events? L'ho visto un po' defilato.

A. Sì allora normalmente il Parlamento manda una delegazione di deputati che sono proprio ufficialmente rappresentati in Parlamento, però non si siedono al tavolo dei negoziati. Solo la commissione siede al tavolo dei negoziati. Quindi il Parlamento cosa fa? Io sono stato più di una volta, due volte nella delegazione del Parlamento alla COP. Il parlamento intanto appunto seguire i side events. Molte volte i deputati parlano ai side eventi o ne organizzano anche di loro stessi, vengono briefati due volte al giorno, mattina e sera dalla Commissione su come vanno i negoziati. E lì a questa delegazione sta là in genere 3 o 4 giorni, gli ultimi giorni e viene organizzato un calendario di incontri giornalieri per cui si incontrano non lo so la delegazione degli Stati Uniti e l'industria del carbone non so faccio per dire semplicemente per uno scambio di idee e di opinioni. Perché poi alla fine questo scambio che avviene in questi incontri il parlamento può in qualche modo, la sera quando incontra la Commissione, può riflettere o no, dire alla Commissione guardate che loro ci hanno detto questa cosa, tenetene presente durante la negoziazione è sempre un modo per scambiarsi delle idee e delle opinioni però il ruolo del parlamento alle COP è veramente poco più che un osservatore.

Q. Quindi voi quando andrete adesso in Polonia sarete semplicemente osservatori.

A. Io ti dico la verità sono stato alla COP21, alla COP22 e alla COP23. Alle prime due ero parte della delegazione, alla terza sono andato di mia spontanea iniziativa non come delegazione e lo farò anche quest'anno perché essere parte della delegazione ti lega a questa

agenda che secondo me è un lavoro. Cioè a me piace molto di più seguire i side events che non sedermi a parlare con i rappresentanti di che ne so dell'Argentina che mi dicono tutto sommato a me che me ne frega io non sono neanche un negoziatore. Per cui ho notato per come sono fatto io vedevo che perdevo tempo mentre l'anno scorso a Bonn io ero libero di muovermi, ho seguito un sacco di cose molto più interessanti rispetto ai miei colleghi della delegazione che ogni ora avevano un incontro differente non pensato da loro ma se lo trovavano in agenda.

Q. Questa delegazione UE o delegazione Parlamento?

A. Parlamento. La delegazione UE è quella della Commissione.

Q. Ok questo è interessante. Ho visto che al tavolo delle negoziazioni almeno per quelle che potevo perché io ero observer, quindi non avevo accesso a tutti ma soltanto ad alcuni ci sono alcuni stati membri tipo la Francia che partecipava in quanto Francia.

A. Tutti gli Stati membri possono partecipare come membro. Sì, perché sono i Ministri che parlano per conto del loro stato. Sì però la domanda non è stupida nel senso che anche nella documentazione per esempio anche nei piani quelli che si chiamano NDC, la Francia non c'è, l'Italia non c'è, l'Unione europea parla come una voce sola.

Q. Ed è quella che ha poi firmato e ratificato.

A. però la COP è la conferenza delle parti e le parti sono gli istati che hanno aderito alla UNFCCC quella

Q. Del 1992.

A. E quindi lì ci sono gli stati. L'Unione europea è una delle parti. Quindi è come se certi stati europei fossero rappresentati due volte. Ma questo è tutto quello che accade in tutte le organizzazioni internazionali. Se tu pensi alle Nazioni Unite per esempio c'è l'UE che parla con un'unica voce e poi ci sono gli Stati membri, come la Francia che parla con una sola voce.

Q. No che sia normale lo capisco poi guardandolo in prospettiva l'obiettivo in praticare del well below 2 degrees, 1.5, e tutta la macchina che si muove a livello internazionale o nel mio focus quello dell'unione europea.

A. No, però un conto è la negoziazione quando noi parliamo di dover raggiungere questi obiettivi, gli Stati non è che fanno quello che vogliono. Qui è l'Unione europea che interviene. Cioè è l'Unione europea che dice che fa le normative non so che riguardano adesso l'ultima risoluzione che abbiamo votato è la riduzione di CO2 dai veicoli. Gli stati si devono adeguare alla Direttiva europea, non è che decidono loro, no io ho i miei veicoli a meno che non superino cioè l'unione europea ha votato una riduzione del meno 40% mi sembra.

Q. Quello del 2030, che viene contestato si dice che non sia neanche sufficiente per il target che poi è quello del 2050 dove addirittura è 80%.

A. Però anche qui la commissione europea chiedeva il 30 %, ENVI chiedeva il 45, perché ovviamente ENVI è molto più legata e la plenaria alla fine ha votato il 40. Al negoziato si va con il 40%. No, dicevo appunto gli Stati membri devono seguire, queste poi diventano Direttive, gli stati membri devono farle a meno che uno stato dica io spontaneamente vado al 50% quello lo puoi sempre fare, non puoi andare al di sotto di quello che abbiamo stabilito. Quindi nel raggiungimento degli obiettivi degli accordi di Parigi pur essendo estremamente importante il ruolo delle istituzioni a vari livelli quindi dello stato ma anche le regioni, le singole città per esempio New York sta facendo tantissimo, gli Stati membri europei comunque la direzione principale, anche a livello di normativa gliela dà l'Unione Europea. Cioè l'Unione europea dice adesso facciamo così in questo settore piuttosto che quest'altro, tutti i discorsi dell'Ets del carbon markets ecc. tutte cose che arrivano dall'Unione europea alle quali gli stati membri devono sottostare.

Q. Poi la Commissione monitora sì?

A. Sì in realtà la Commissione fa una cosa che a me è piaciuta molto. Ogni 5 anni fa un esame di tutte le sue Direttive di come sono implementate cioè proprio c'è l'esame di come si stiano ottenendo i risultati sperati se quello che è stato richiesto viene fatto ecc. quindi un monitoraggio c'è anche se purtroppo per esempio l'ho visto soltanto per le cose che riguardano l'ambiente ecc. sulle normative, i risultati sono sconcertanti e lì il punto che ti dicevo anche prima lì l'Unione europea le direttive le ha fatte benissimo. Gli stati non le implementano quasi per niente e alla fine i risultati non si ottengono.

Q. Non si riesce a farne regolamenti?

A. Ma in realtà il problema è sempre lo stesso. In realtà è uguale nel senso che poi sai le Direttive devono essere recepite dallo Stato membro quindi ci deve essere una legge di attuazione che attua la Direttiva e il Regolamento che applica direttamente. Però non è tanto nel meccanismo è proprio nell'implementazione che diventa cioè nel senso anche un regolamento che quindi diventa direttamente una normativa poi per molti casi non viene rispettato o perché non si riesce o perché non si vuole, vai a fare l'analisi dopo 5 anni sta funzionando o no... molte cose non funzionano. E spesso alcuni Stati anche se sanzionati rimangono in questo stato così, cioè le sanzioni non hanno secondo me non funzionano cioè non hanno proprio un effetto deterrente. Cioè l'Italia è strapiena di sanzioni paga dei gran soldi però alla fine non è che stia cambiando molto insomma. Alla fine, o perché non si vuole o perché non c'è la volontà politica non si riesce a fare però le cose non cambiano tantissimo.

Q. Ci siamo risposti. Sì, volevo chiedere un'altra cosa, è una domanda di curiosità per quanto riguarda eventi quali e adesso parlo a livello del Parlamento non penso di parlare per ENVI in particolare eventi che rompono con il pensiero corrente quali la post growth conference di 3 settimane fa.

A. Non so cosa sia.

Q. Questa post growth conference che in realtà è stata organizzata dal parlamento però ovviamente dietro ci sono gli attivisti della decrescita insomma tutti questo movimenti che spingono per veramente un cambio di paradigma.

A. Bello è una bella cosa.

Q. Ovviamente è tutto in erba, ho visto che si stanno organizzando sempre di più ho visto anche a livello accademico se ne parla sempre di più da quando ne parlava solo Latouche in Francia adesso ovviamente eh in realtà il Parlamento ha dato spazio c'erano questi giorni di conferenza. In realtà poi si parlava di tutto tranne che di decrescita o di post crescita qualunque cosa voglia dire perché ovviamente rompere il paradigma è difficile. Però c'erano parlamentari c'era anche la commissione spesso DG Grow o quello per Industrial Affairs. Questo eventi sono semplicemente eventi di facciata?

A: No sono promotori di un'attività di pensiero che...Ma dipende, io di questo tipo di evento qui non ne ho sentito parlare, è difficile che sia stato cioè quasi sicuramente non è stato organizzato dal parlamento ma da qualcuno dentro il parlamento.

Q. Ho anche il volantino.

A. Ok, qua ci sono i loghi di alcuni gruppi politici. Vuol dire che alcuni deputati si sono messi insieme e hanno detto facciamo un evento sulla post grow e poi ci sono anche degli sponsor. Questo succede mille volte all'anno, su qualunque tematica possono essere eventi che durano 2 ore, possono essere eventi che durano 2 giorni. No, ma è come dire in un logo dove ci sono interessi diversi di qualunque tematica basta vedere le 22 commissioni del parlamento coprono tutto lo scibile umano. Quindi ci sono tantissimi interessi diversi tante persone diverse tanti portatori di interessi e soprattutto 751 deputati che hanno a disposizione lo staff e i soldi per poter organizzare gli eventi ma proprio del budget da cui possono attingere per organizzare gli eventi. Questi eventi qui sono una delle cose più normali che possano succedere cioè che il parlamento sia un luogo in cui c'è questo fermento di idee e di confronti fuori dall'attività parlamentare, ma dentro al parlamento è normale perché appunto sono tanti interessi diversi per cui....io ho organizzato incontri sulla COP21, ho organizzato incontri sulla pesca perché mi occupo anche di pesca, ci saranno quelli che lavorano in trasporti che organizzano discorsi sulla mobilità quindi tu metti insieme 751 persone che hanno lo staff che hanno i soldi per poter fare questi eventi concentrati qui dentro

e c'è questo grande fiorire di eventi. Poi il fatto che questo evento qui sia così grosso è perché si sono messe insieme tante persone diverse, qui praticamente i gruppi ci sono tutti 1,2,3,4,5 no ne mancano 2 manca l'estrema destra.

Q. Che in post grow magari non ce la vedo.

A. Sì forse non erano molto interessati, quindi già basta che si mettano 5 deputati o più di gruppi diversi con molti fondi a disposizione con anche degli sponsor e diventa un evento molto grosso però è soltanto...la dimensione due giorni piuttosto che 2 ore e tanti gruppi insieme non è che questo renda l'evento di per sé ufficiale. Non è ufficiale questo qui è che chi lo ha organizzato ha voluto discutere di certe cose ma se tu vai negli ascensori li vedi costantemente tantissimi volantini con tutti eventi tipo questo. In genere molto meno organizzati molto più brevi con tematiche totalmente diverse, cambia solo la dimensione del fenomeno ma non la sostanza che è tante persone che organizzano tante cose differenti che hanno la possibilità di farlo.

Q. E quindi invece allo stesso modo eventi organizzati dalla Commissione.

A. Se sono eventi organizzati dalla Commissione è diverso.

Q. Ok queste sono comunque linee ufficiali nel senso non si parla di post growth. Questo era nell'ambito della COP perché era l'EU for Talanoa.

A. Qui l'intento è proprio di consultare gli stakeholder cioè a volte è ovvio che con gli stakeholder hai dialoghi bilaterali continui e molto differenziati però a volte può essere utile dire mettiamoli tutti insieme dentro una stanza così sappiamo quali sono i loro interessi in 1 giorno solo, o 2 quanto possono durare. Abbiamo ascoltato un po' tutte le voci possibili la commissione a volte usa anche le consultazioni online prima di fare una Direttiva per sapere quali sono gli interessi ma anche fare degli eventi è un'ottima idea. Q: Beh allora diciamo che questa intervista è stata molto densa. Grazie mille.

Interviewee 4 (12/10/2018)

Q. I would start with a very basic question. Could you describe your role within DG Clima and your typical day.

R. My role is supporting my hierarchy of policy making in general with economic quantitative data that typically involves working with scientists at large that provide economic data to see what they can basically send to us, what reports are there, and to translate that into policy relevant analytical recommendations. We do that for in this unit for what we call horizontal features so it's not a single specific policy but it covers the whole economy that's why we try to do that. We do that both at EU level as well as the international

level. So, in my team a number of people look at EU's climate policy in aggregate, energy policy, agriculture policy, industrial policy, environment policy, employment policy, regional policy, cause it all matters in total if you want to address climate change.

We try to the extent that is possible to quantify elements of that. another part of my team follows international negotiations and tries to provide similar quantitative data there. But that is more related to what other countries are doing, how does it relate to what EU is doing, how does that action on a global scale add to or might be needed to achieve certain temperatures goals. A Typical day? There is no typical day. It depends a lot on the files. This unit while this horizontal assessment is the core business, but we also deal with specific files that for some reasons need additional analytical work. There are a number of topical elements we follow. So for instance my unit also follows employment policy in general but for instance we don't follow regional policy unit I mean you get a number of tasks which have to be split on all the DGs and that are not always totally in line maybe with your core business. Similarly, my unit follows research and innovation so my typical day might involve following these kinds of discussion inside the Commission.

Q. So how is the communication between the other Directorates? Do you work conjunctly and with other DGs as you said.

A. I mean institutionally I'm not saying that everything is always perfect because I don't think that there is an institution or private organization or whatever that is perfect on that one. But my unit is the most horizontal one in the DG so I requite all the other units I try to make sure that my communication with other heads of units and is quite open. Not that this is perfect but I would say that in most of the things I do I will inform other people of what I do and in most of the files they inform me of what they're doing and that goes across DG and across other DGs so yes.

Q. So for example as you said you're dealing with economic data that they've been sent to you who makes them?

A. The economic data is made by academic research groups, government research agencies and consultants in my field I've always had capacity to deal with climate scientists and in this case lots of mitigation the majority but we aren't ourselves generating how should I say it generating a scientific first input.

Q. You don't do that.

A. Nope

Q. That's interesting because you are deeply involved in the economic and social assessment they 've been talking about at these events and it will be published in November as far as I know is it a definitive one ...ok.

A. Let's see. I mean what is the definition of the definitive? Then you have to look at what we've done previously. So, to give an example my unit at least when I was [...] we were deeply involved with the development of the 2008 and 2007. In 2007 the Commission came forward with the idea of what we call now 20 20 20 targets. Then the year after the European council asked to come forward with the legislation to implement and that is legislation that covers the whole EU economy on the side of the ETS and non ETS legislation, and renewable, energy efficiency and there was a joint impact assessment. And similarly for the 2030 and energy framework before the 2050 climate roadmap but I don't know if these documents are in your terminology, I'm sorry, definitive but these documents are the first input into a policy process that might have many follow-up documents, many of the commission but also many of the I mean institutions and stakeholder out there. But yeah in November there will be a document there will be another I would say step in the policy process, but it never ends it's never definitive it's always a stage a step.

Q: Does it clash with the urgency sometimes?

A. what the urgencies?

Q. The proper climate action, the environmental impact we see

A. Then I leave for you to judge

Q. It's an open question

A. The questions sounds almost as if our policies are not ambitious enough and therefore we should do more. Everything is quite transparent, our policies fit in the ambition cycle but stakeholders have a very different opinion but I think we're quite solidly based on science but it doesn't mean that stakeholders are (incomprehensible, Ed.) our actions that should differentiate from that.

Q. So, what about the stakeholders? Because the stakeholder are a huge variety of actors, bringing them all in one boat? I imagine it's difficult.

A. I do not think that is possible and also I think the topic is too difficult for that. One is I mean there so many difficult things to ask. Do you believe in climate change is a very basic one. Luckily, we live in an environment in Europe where a large section of society and a large section of stakeholder doesn't doubt it anymore. It's not something I have to deal with in my daily practice anymore to defend that. But then the next question is ok what type of climate one wants to stabilize how much effort we have to do now that's also quite easy 2 degrees for a long time and then, after Paris we have to pursue effort 1.5 that increases the need of ambition so that's what we are working on and stakeholders they have different opinions. I mean if you go to sort of NGOs who are very, who only base their view on equity they ask for I would say emissions reductions that are not achievable in real life.

Q. Too idealist in that sense.

A. Yeah, I mean if you are familiar with the literature there are pure equity approaches that requires us to reduce much more than 100% by... very soon. Because they say we emitted that in the past so we should do it now, but I mean how to do that? I don't think there's any economic model out there that can or any but it is an equity perspective if you then ask them how to solve that the next question or answer is yeah you will have to pay others to do these reductions that's all nice and well you get very quickly to believe can we go to Kyoto kind of world where everybody has fixed targets some of them are for equity grants quite soft some of them are for equity grants are higher and more ambitious and they can trade' and was Kyoto a success? I leave it up for you to answer sorry. But I think that anyway at some point the EU was the only large economy still in there so we didn't have much to trade with them and the trade we did was CDM and I think that CDM was also for various reasons was quite heavily criticised for not being a solution to get to 2 degrees at that time. So I'm just saying as the will we get all these people on board I try always to explain that it is not always useful to say you should take a target that is not that we cannot implement and then you get all the Council variations all the way up to pro stakeholder who say yes we believe in climate change but why should we act if the rest of the world doesn't act because we're only 10% of emissions. Ok, so you have these 2 extremes and what we try to do is to make sure that a large majority and majority that's democracy says "no no we have to do something that has to be ambitious" I try to make sure that the majority comes along . what I do think is that we try to use science there, say ok what if we going to achieve 2 degrees how could that look like? What is the EU doing there? It has elements of equity, it has elements of technological development innovation. Some of these things you cannot...I mean take the electric car: can we decarbonize our transport sector. I think everybody nowadays says yes. Is it easy? You can get different opinions about that do we have to work together I mean that's exactly what we do we try to make all of that, we don't make it plausible that's not the word but we do bring the information I hope to have a good argument is this plausible yes or no. I also think sometimes we get caught by I mean one the debate is much more grown up now than 10 years ago. I mean our 2011 roadmap for some reasons rightly for some reasons wrongly raised criticism fine that's normal, but I think we were still one of the first to say power sector should aim zero GHG but not that much out there in 2011. Today even the power sector agrees with it. So sometimes you are on guard of things sometimes you're not and that's yeah that's not abnormal but that is our job to try to use science as good as possible to explain where we need to go.

Q: It's fine when you speak of science you refer to the techno scientific, not the natural sciences like geologists.

A: How does it relate to that depends on how you see that maybe I should ask you what you mean by that question.

Q. Because I see some kind of discrepancy between those studying the biophysical reality, geologists, biologists, even the report of IPCC the earth and all the technoscientific approach engineering by innovation we can manage so what type of science does DG clima work with in that sense.

A. Both. I disagree with...

Q. With the distinction?

A. No, with the idea that in the IPCC those who look at the science of climate change have a different message of those looking at mitigation of climate change. Because if you look at how it works if I may say so the science of climate change tells you something about the atmospheric composition is changing and therefore climate change is changing in many different ways. I mean is it only getting warmer? I mean at the end of the day we retain more energy in the atmosphere and how we express that is all part of the science of climate change fine. But science of climate change is one like the atmosphere composition is changing why? Because we're pumping relatively more greenhouse gases in the atmosphere if we wouldn't be existing in this world, anthropogenic emissions. The mitigation guys are only trying to say ok how do we reduce that again and I think why they're trying to do is they're trying to use the science of the first group to say ...but if your question is I don't know why you asked it...are these pathways plausible of the latter group? I don't think the first group can answer that either. I mean the IPCC report is full of it at some point we will have to stabilize somehow greenhouse emissions if we do that too late we have basically consumed our budget or climate goes off whatever the objective you set yourself we have to get somehow the atmosphere well you need to help the atmosphere go down faster in concentrations it would normally do it itself. That's what we call negative emissions. I don't know why you're asking but if the question is I don't believe in so we should. For me these two go together. The only challenge they have is there are different scientific communities so making them talk is important so that the science that one produces is in line with what the other uses but I think what the IPCC does so well by having 3 working groups by having them to work together. The special report 1.5 is different it says it has to be done fast special request from UNFCCC. But if you look at the AR cycles, they are more and more start in the beginning scientist say to each other ok how can we have earth simulations models, climate science models and impact models and mitigation models with similar type of projections. So, after

we say this is what happens to climate and this is what happens to the mitigation profile you want to do what was called TRCPS in AR 5 so the representative concentration pathways, so they try to do all of that. Is that all perfect? It's as good as it is.

Q. I understand because you mentioned also the negative emissions. Can I ask you something on the circular economy? Do you work within it? Is it mainstreamed, is it working on the wider view that the whole economy has to be circular? Or is it a less mainstream strand, like it's slowly entering the debate and who is promoting that? I don't understand its place within the Commission, sometimes I see it as detached and pops up in the conversations.

A. I think if you look at what I mean an element of what you say is always true I think if you go back even 10-15 years ago the idea of having a strong industrial complex to show more and more goods was a notion that more people even in brussels would have defended. The thing that today we still want a very strong industrial complex we might need to do more recycling more re use different business concepts that's all very different.

Q. And the designing also.

A. It's a different storyline and I would say that by and large the Commission has taken its stance accepting that as more sustainable long-term economic strategy it means that every single thing that the Commission is fully in line with that if you call that mainstream I'm not sure I think you know the answer yourself a bit also but nevertheless do we have industrial department which is DG growth that is seriously looking into this? Yes?

Q. I mean DG growth is looking at

R. Yeah I mean the 2 related DGs on the circular economy are DG growth and DG environment so that is happening are they really trying to talk to industry or talk about how re use and recycling can increase in Europe or how can we be resource efficient. They are really doing that, so yes, I think the answer is yes is it all perfect I hope but ok.

Q: Can I ask you in your opinion or in the opinion of DG Clima you can choose what is the purpose of these stakeholder events that DG Clima runs every month? Because I've been to quite a few.

A. I mean the stakeholder events are, I mean there's events and there's public consultations, I think there are different animals for the same purpose. A stakeholder event to some extent is a moment where key stakeholders can publicly say what they think. Is that important? Do we learn lessons from that? Yes, I mean if the long-term strategy event that we organized we shared quite some businesses or would have been shouting this is a ridiculous idea we would be in trouble. But it wasn't like that. I think it was much more nuanced.

Q. Yes it was nuanced.

A. But that's important, that's exactly what a stakeholder consultation should do very different set of stakeholders so we had a lot of nuance and a lot of elements that indicate I think that in the EU, if you do that right now in certain other constituencies in other places in the world might be less nuanced. So, we have luckily that dynamic in Europe. So, what stakeholder events can do. They can basically create a public platform to have that interactions and you can do it interactively so ok. A public consultation has the same purpose I would say but has the benefit that everybody also can send a much more detailed. On the one hand they can publicly have a place to say this is what I answered. And we as a Commission put it on the website and will try to summarise and we will try to give all a range of answers and it has elements of what do our citizens say. Now there what do the citizens say? I think you do have some limitations, you will always have...even with the stakeholders you have I would say people of course who are more interested, I mean it's not an election we have that out and if people are interested they will react so. Personally, I think it's quite interesting.

Q. Do you have relationship direct relationship with the Eu parliament?

A. what do you mean with direct relationship with the parliament?

Q. As Directorate, in terms of communication

A. Think that as an institution we have that yes. Or you have to ask more specifically what type of.

Q. In the procedure of does it because I see that the commission sometimes in this bubble, you consult the stakeholder obviously you don't act in a vacuum but also you know that the problem of being accountable to the citizens in that sense so what do you prepare for example as...

A. Is the legislator that is accountable I have to be I'm not a legal expert, but I think it's true we're not an elected body and we never decide on legislation there's other people doing that.

Q. It's fine we can skip it.

A. I'm not a legal expert so I don't know. I mean it depends on the question if we have a legislative file that's clear how it goes. I mean we propose, it goes into co decisions and you get these clear steps. I think for the long-term strategy it's interesting to note that in the Governance regulations has been approved in trialogue I don't think the signing of yet in Council and also in the Parliament as the official last step but the political will is there. So for instance there is an explicit request for us to follow with the long-term strategy needs to look at zero net GHG by 2050. So right now, I would say has there been an interaction with Parliament? I didn't do it, I didn't even negotiate the governance regulation so my colleagues really had some good talks about this and this was a clear desire. In this case a little bit more

I think from parliament and from council I haven't followed the details. Just to give you an example there was an interaction. Parliamentarians were present at our stakeholder events but it's not that we as Commission have the obligation to I mean that is our right of initiative so that's why I get a bit nervous when you ask me ...and actually in Parliament I think they have very different views of what it should be. They represent the people which is right.

Q: There's the Council, there's the Commission, there's the Parliament so sometimes the EU speaks at one voice but then you hear 3 different voices, I know there is a trialogue.

A: The European Council has asked us to present a long-term strategy. Parliament did that already before in a resolution, so we have from both institutions the request to do it. When we do public events, we invite them to come, I'm afraid I don't know at what number is right now this week public consultation ended a significant amount of member states will provide input like that. So, it's even a public input that we have been made available in the end. I'm not sure the Parliament did it but at least few political movements contributed to that ...what is informal? There are now tens of events are now on long-term strategy are happening in Brussels. Do we get invited all the time? Do we show up? Often. We cannot do everything otherwise we wouldn't be working in this office anymore so if that's the kind of interaction? Yeah, it's all happening so I'm not clear what the real question is.

Q. No it's a bit clearer to me as I was following yesterday the ENVI committee work. so it was just the part of mapping how everything is linked together, because they have their agenda items, they discuss the papers you don't have, you have some older versions on the website, in the sense there is a draft report in which the parliament welcomes one of your communications.

A. On the long-term strategy?

Q. Yes

A. But they're welcoming that it's coming but the report is not there.

Q. So it's basically to understand the journey of these documents, the amendments, and everything so sorry maybe you don't deal with that directly, so it's fine I mean, it's just someone who ends up at this kind of meetings and doesn't know.

A. We tell them you need to do this, and they do that themselves, like I said the they asked us and they will continued to do that, they put it in governance regulation. So logically they will always continue to welcome it. I don't do this sorry.

Q. Of course you deal with the quantitative aspects of that of course. So out of curiosity because I was surprised that I found the commission at one of these events ok It was organised it was not organized by the European Parliament but some of the groups in there in Parliament welcomed a conference like it was 2 days plus a follow up morning of the so

called post growth conference. And some members of the Commission were there. So why do you think, what was the purpose of the commission at an event like that in your opinion?

A. I don't know what the event was.

Q. I can show you I don't know if you've ever heard of that ..that was I think it was organised by groups of activists, academics and so on so maybe they put pressure on some political groups within the Parliament and they got the space. But you know it was quite big in size and some from R&I were there and the DG for industrial affairs they would all sit at the table. Obviously, they would all speak from their own point of view. So why do you think the commission took part in it?

A. Because that was organised by parliament. We tend to be I don't know what the legal requirement is...I don't know if for an event like this we're obliged to show up but if the Parliament organises such an event why would we refuse to show up question mark. See even the Commission shows up I mean there's so much happening.

Q. yeah that was just one of the events because of the size and the scope.

A. So, 5 political groups, the unions, NGOs, it's unions, NGOs and political parties all discussing basically how to grow I mean, I have not been there but looking at it this is lot about what is the definition of sustainable growth and how you should position yourself.

Q. Or should go beyond the GDP

A. Yeah yeah.

Q. No I was just surprised to find the Commission, it there was legal obligation or if they went spontaneously.

A. I don't know, I don't think there's a legal obligation to show up at this kind of events.

Q. So it's good that they went spontaneously to meet.

A. Yeah but the Parliament doesn't have to show up when we do public consultations. I think this is the normal way of behaving that you interact with very close institutions.

Q. One last question and we're done.

A. Really? Ok, I mean we have another 5 minutes

Q. You are free to say no. Not only at the Post growth conference, but even at stakeholder events, Q&A sessions, even at COPs side events, I heard that saying yes but we don't address the big elephants in the room and we know that the global chain supply, the international trade, the fact that you buy the apples that travelled more than you in your entire life, or projects based on coal that have been financed. What can you speak for DG Clima? It's not true, yes, it's true. There are some things that are untouchable.

A: I totally disagree with that.

Q. You disagree. Ok. That's fine. We are here to hear you speak.

A. I mean there is much stuff you can categorise like that. I mean let's start with: it's global trade a part of something that creates emissions? Yes and no. Is it the fact that in Europe there are still investments fossil fuel based? Is it what we eat how we dress? it's which cars we drive all of that can be categorized with what you just said. The big apples in the room. But when we do analytical work that is what we work with I mean you can't walk away from that that's exactly all of that we want to transform. But if some people say that it should all be fixed tomorrow yeah fine that is not going to be possible. We cannot in one day change the whole the way our economy works. Are we articulating it in a change that can happen over time? I think we are. Are we articulating it to happen in different domains and if possible, all? I think we are, so I don't think we are ditching any elephant in the room. But I mean it's an easy thing to say, I mean at side events at COP...I mean solving climate change is so... it touches upon every single thing in the economic sector. So would people think that there are not elephants in the room they are pretty stupid, I mean there are of course elephants in the room in the way that this is big, it's huge.

Q: The way we live

A. Is this possible? This is why I'm doing this work all the time. But to see that we avoid the elephants I can't see where the elephant...But I disagree with certain positions personally. The position that trade is worse for climate than no trade as some people would say I think it's completely wrong. The position that Europe has decarbonized because it entered into trade with other countries and has these consumers I disagree ok I can't have any quantitative arguments but some people are not convinced of what I think about that, so it part of the...

Q. Dialectics?

A. Is this the elephant, ok fine. But I don't think if I'm in a public setting ...but I know the discussion. Yes, the current MFF is being used to build gas plants. Some people call it an elephant in the room. Then again energy security is also we want..I mean why wouldn't we want an energy secure Europe? So, I disagree with it.

Q. Do you have a specific narrative that DG Clima wants to build for their mitigation policy. A story, because people sometimes say we have to build a positive story and I've heard that saying at COP side events, so I'm interested in what's the narrative of DG Clima.

A. A narrative is that we can do this in a way that both people and the economy as a whole don't suffer. But what people wants to hear it's good for jobs it's good for growth but I think it's important because if we can't convince people that we can do this in a way that they in 20 years time are similar but it's not the same similar lifestyle, I mean lifestyle be careful as I'm not talking about behavioural change, it's a different thing but that they have a

prosperous life, then we need to be able to explain. Because if the only explanation is we need to do this because otherwise our grand grand children will suffer a tremendously bad state it might be true but I'm not convinced that we will get societies to do that. So I think we if there's a narrative ok it is that we have to do this because climate change is tremendously bad but also we can do this it has to do with the discussion of benefits, it has to do with a having a more sustainable society, for many environmental problems is all of that, they all come together. If there's a narrative yeah, I guess that's a narrative.

Q. I think I have covered pretty much all the aspects I wanted to cover. So, thank you for having accepted to talk to me.

Interviewee 5 (30/10/2018)

Q. So just to break the ice with the interview introduce yourself and describe your role with the EESC.

A. This might take a few hours, let me give you a context. So my day job is I run an Environmental NGO called [...] based in [...] but we're active internationally in Europe and some international projects. Then as part of that I'm part of a network of [...] environmental NGOs and that network has a voice with the government, the [...] government to appoint somebody to this economic and social committee in Brussels. So, the [...] government appoints 9 members to this institution, it's not an institution but let's call it an institution and I will explain the difference in a second. But each Member state according to the population gets to appoint a certain number of members to this EESC. And those members come from organised civil society, so each Member state chooses their own selection criteria and the government proposes somebody to the European Council. So, the government in [...] decided it would allocate one of the 9 seats to someone from the environmental sector and it's said to the environmental sector can you propose somebody, and they chose me. The [...] government put my name forward for this committee. That was 3 years or 4 years ago.

Q. Ok so now I understand the relationship between the NGO and how you ended up here, your job here.

A. So it's from small NGOs national network being selected to be part of a European network and all the other members the 350 members here are the same. They come from different sectors but once we arrive here a bit like Harry Potter they go to the different schools here we get the sorting hat I don't really like Harry potter I don't even know why I used this as a reference, but we get put into 3 groups. One group is the employer business sector that have been appointed by the government and chose from industry or employer groups or whatever. That's group 1. Group 2 is the trade unions or workers, so that's their focus and then I'm in

group 3. 3 is everybody else: farmers, consumers, environmental groups, disability organisations, youth organisation the different groups all in group 3. And every piece of work that the EESC does is a balance between these 3 groups so that's important for the circular economy work that I'm doing to understand these 3 groups. It means that when the EESC makes a statement, a proclamation, or a decision it carries some weight and some power because it's a decision of organised civil society of every member state businesses trade unions and the various different groups that are mentioned in group 3 are farmers environmentalist consumers. So, when we produce an opinion, a piece of work, it is the agreement of all of these groups. You know what I mean. So our if I may explain one other thing and then just to give context the reason why I said we're not an institution it's because technically the EESC is a consultative body so we're national experts or so technically we're representative of organised civil society groups and we're established here in the Treaty of Rome, the treaty on the foundations of the EU to have a consultative role of the political institutions. So the Commission the Parliament and the Council are the legislators and when legislation is initiated in the Commission I know you know these things goes to the Parliament for the debate but at the same time it comes here so the legislation is sent here. Then we work faster than the Parliament to produce a report and our report is called an opinion. So we produce an opinion or a report as fast as we can but it's slow-fast by Brussels standards and this opinion is the official position of these 3 groups and all the different members states represented so it carries strength because it's employers, trade unions, and all working together to produce this is what is important, it's the citizens in this process of drafting legislation.

Q. When you said that you're faster than Parliament?

A. We try to be so we can use our work to influence the Parliament.

Q. Which would bring me to the next question of the directionality for trying to influence.

A. Our consultative role is to the Parliament and the Commission and to the Council actually. So that's our official influence. The reality I would say our influence is the least maybe not the least but it's very small, we're one of the smaller voices to be realistic you know. So, we try to amplify as much as we possible, but amplification is often dependent on individual member taking ownership for a project. So, can I tell you briefly as brief as I can about how we come to produce a decision? So, the information comes in from the Commission communication legislative proposal whatever arrives and as members we have an internal process that selects one member as a rapporteur for this piece of work. The details of that process don't really matter but one rapporteur is chosen and that is person holding a pen to write opinion. The rapporteur works with a small drafting group called the study group and

the study group comprises a balanced representation of 3 groups so the study so the drafting group is employers trade unions and group 3 now there maybe 12 members so there's four for each section you know and everything we do here is always divided by 3 so we have representation from each group and when we draft the report the rapporteur has more authority than members because he or she is doing it, goes normally to study groups meeting drafting group and then goes to a section meeting which is like the committees in Parliament so there's a large group of 100 members 30 for each section again like committee type of thing.

Q. I followed the work of the ENVI committee so I kind of know so I interviewed one of the MEP to contextualise what I had seen there.

A. So it's the same because people are more familiar with Parliament they can relate to Parliament so our committees are called sections so we go to a section with our opinion or draft opinion we have a debate, we have a vote there amendments they come to agreements compromises and amendments. Then if it passes at the section state it goes to our plenary stage which is once a month and we do we adopt the opinions there as finally adopted. That's the process for reaching an agreed position and at that stage it's my experience that lots of opinions are finished and then they go finished (claps hands) everyone congratulations. So behind the scenes the opinion goes to the Commission it goes to the Parliament I think it gets lost somewhere in the Parliament I think it goes to someone very specific in the Commission, the people who have drafted the piece of legislation, Regulation or communication that we were responding to. In the commission there is a point of contact and the Commission always sends us a reply withing a couple of months to say thank you for your work, we'll take in on board we're interested in your work.

Q. But at what level are those done because I get lost when I look at the structure of the Commission, the DGs and then the commissioner and the members of the cabinet.

A. it goes to the relevant DG. So, it goes to the drafting group in the DG normally for the purposes of that communication it's normally a kind of head of units unit level or below it is an administrative think. Ok in terms of circular economy I was selected as a rapporteur for our response to the circular economy action plan and the legislation that came with that for 5 pieces of legislation and action plan that was published in December 2015.

Q. Because then the package that was issued in 2018 is it a different thing?

A. That is bringing together ok no that is was the agreement no that's the same thing but in December 2015 the Commission publishes this and then it went through the Parliament and the Council for debate for editing for the trialogue process of the 3 institutions you know the trialogue the Commission, the Parliament and the Council to come to an agreement and to

say ok we have the input from the ENVI committee and the Parliament with their positions from Simona Bonafè who I think is Italian. She was the rapporteur for the parliament for the package. She did her thing and when she went to her committee stage, I think she had something to I forget 200 or 2000 could It be 2000? I don t know of amendments it was crazy it was crazy the amount of...(someone interrupts, Ed.). So when Simona Bonafé got agreement in Parliament on their position that went to the Council and then the debate took a long time 2 years for them to agree the final package so that's why it started in December 2015 and was only was it January 2018.

Q. Yeah, I saw it in DG environment.

A. It' s the same thing it just took them long to come to an agreement. We moved very quickly so the EESC finishes its process drafting, 2 study groups sections meeting, and plenary all finished by July 2016 of the original position on the circular economy.

Q. The original action plan 2015 before the amendments was pushed by whom?

A. The Commission. The Commission is the only one with the right to initiate legislation. So, they initiated.

Q. Yes but maybe because they don't act in a vacuum so they must have been influenced in that sense.

A. Ok sorry, correct the history is sorry I misunderstood what you asking. The history was the previous commissioner of the environment Jannus Petocnik he pushed for eh circular economy package there was a lot of initial study by a guy called Professor Walter Stahel. I don't know if you have come across he's known as the grandfather of the circular economy and he is based in Geneva now his institutions is called the Product life research Institute and he's a German professor but he has been in Switzerland for many years and since the 1970s he's been writing about circular economy. He first used the phrase cradle to cradle that he came up with this and since then 2 guys Bill mac Donald maybe and somebody else they kind of trademarked as used it as business. While Walter was the academic who first suggested the cradle to cradle, he is very much the academic grandfather of he would probably hate me calling him grandfather but he's old. So, he Walter had been writing about this as a concept where commissioner Petocnik got into office he said ok let's do this and he published a very ambitious circular economy package and this was during the recession you know in the global downturn. It was exciting because he proposed a new economic model. And it was published, and it started going through this process here, in the Parliament and then due to a very strong lobbying from different groups in particular business Europe it was removed, it was pulled. And at that time there was lot of upset and anger that it was removed from the agenda completely and the anger was building and building until there was some

strong protesting particularly in the bubble in the brussels bubble from the EEB you can imagine the European environmental bureau. And at some point, in 2015 Commissioner first Vice President Timmermans said at some conference -circular economy why did you remove this from the agenda? And he said the only reason it was removed was to make it better to make it more ambitious and to make it even greater and everybody went really? And the feeling was that that was a signal that perhaps didn't come from Juncker because Juncker is not a fan of the environment so it's not a shock for everyone. So, Timmermans said we're going to produce something even better and in December 2018 which was after or sorry December 2015 which was just after.

Q. The Paris Agreement.

A. And while everyone is in Paris and focused on this celebrating and excitement, here quietly the Commission produces -here's our proposition a new improved more ambitious proposition. And what got lost in the noise of Paris was this less ambition and lower target it was less ambitious represented in one analysis represented and implemented as it was represented less of carbon reduction than the withdrawn package. So on the one hand the Commissioner said we're going to produce something even better but what it was produced the analysis showed something much less actually percentage targets are lower the ambition is even all the work the commission produces quite digestible and readable I'm sure you know. But behind there's a staff working document which is much more difficult to read and the staff working documents that accompanied the circular economy action plan has the details of the analysis. It's much more interesting to read and in there it is specified this is lower ambition represents reduced levels of emissions reductions but that got lost in the noise of Paris we're moving on we have a new targets and now we have circular economy plan everything is wonderful so it was important that we had a voice in there criticizing the ambition and we were by July 2016. I had an opinion that was approved here by plenary I got here group 1 businesses and trade unions and to say here's our position and because that was my first opinion and I think I'm going to be particularly lucky. Because circular economy was something new- whos' this guy? And they voted yes, they don't know what's in it and then they said I want to hear more. But then I went to the Parliament many days to say knocking on doors and say this is our position and Simona Bonafé even though she was very difficult to meet took all of that report replicated 90% of this in the Parliament position. So, it wasn't just my work that influenced parliament of course no. But it helped, it added another voice, just to strengthen the position so we pushed for higher targets higher percentage and the Parliament agreed and pushed for the same and that is why we raised the ambition of what was published in 2015 what was the original so this needs to be ambitious

what you pulled away and the Parliament said the same and went to Council for the trialogue and the Council tried to pull it back and down again you know, because the trialogue there's no minutes, there's no reporting of the trialogue stage that's behind closed doors and the Council invited me that's why I say our audience is the Commission and the Parliament and the Council. The Council invited me to come and present my work to them because they were interested, and they know I was very active. It is quite rare for a representative of the EESC to be invited to the Council and I went and I went to the Council but when they had their debate I mean I had rumours about this being discussed and the rumours were they were trying to pull the ambition back all the time and I know, I can go into the details if you want and I know where the debate was stuck the details of where the debate was stuck I don't know officially but I have good idea.

Q. You don't know ok.

A. Logically nobody knows but for your interest if interested the problem they had was they agreed to increase the recycling targets because that's what we were pushing for higher targets but the disagreement was -how do you measure recycling rates across Europe and we have pushed for here and the Parliament pushed for here (indicates, Ed.) what they called post sorting recycling. So, at the moment you have material being used in the economy and they are collected in the next stage, so they're collected by waste management companies and they go to the waste management facility. And when they arrive at the waste management facility there's a certain volume quite a lot of what's being collected and then they go through a sorting process within the facility. So ok this lot of cardboard is contaminated because somebody pushed a soup can in there, ok so this is going to landfill incineration this one has some glass in it this is going to be thrown over and when you come out of the end of the waste management facility the volume that comes in was this much. And then when you come out is this size you know because you've lost some, understandable that this the process. This' smaller amount is the valuable material that's available as secondary raw material for other industries to use. At the moment recycling rates are measured across Europe mostly back here before they get sorted out ok so back at this stage they go your recycling is this amount 10, this represents 10 tonnes this is ridiculous but the reality in 10 in [...] for example 10 tonnes arrive at facility but when we look at what is sorted out it's maybe 5 tonnes, you lose half. So, the Member states understandably were fighting for their own interests saying currently according to the statistics our recycling rates are at for example 50% and we agreed to these targets of 65% because we can achieve that. If we measured that here which is not the true measurement really what is being recycled. It's the measurement of what it's been collected and so the argument was do we measure

here, or do we measure here? (indicates, Ed.). If we measure further along sorry this is confusing, I'm trying to remember that you won't be able to see it.

Q. But I remember it because I'm listening so

A. Ok so they call it pre-sorting early stage. And obviously afterwards so post sorting measurement obviously suddenly all the Member states would have to remeasure and their starting point would drop they would go -shit we're doing way worse than we thought we were doing and then in truth we're doing way worse than we were pretending we were doing. Because pre-sorting figures are actually irrelevant you know they tell us something about the collection which is important a good collection they don't tell you want you re contributing post sorting in the second raw materials markets, which is the logic of the circular economy, So there was a critical debate and in true brussels style there's bit of a fudge in the decision, but it's not very clear if is going to be post sorting measurement but it's because there are some delegations as usual but generally speaking the agreement is that the measurement moves further along in the process which is good. The measurement will move closer to the post sorting.

Q. And this is contained in the final 2018 action plan?

A. This is contained yea yeah now I have to check the wording again and when it came out, I was quite happy that it moved further along the chain.

Q. So now this package is achieved, is it something that is still ...like in the making?

A. In terms of institutional process it's achieved but not in terms of implementation on the ground and in terms of institutional process it's achieved but actually it's in 2 parts the package it has the CEAP the Circular economy action plan with 4 priority areas, production consumption waste, something else easy to read ambition for circular economy and then the second part is going to be the details, the legislation. Ok so exactly initially when the Circular economy action plan was published in 2015 debated through to 2018 it came with it was published; I think I should remember I think it was 4 pieces of legislation that came with this. So, there was an action plan and then there was a legislation proposal. The action plan when adopted it's just a guideline.

Q. Yeah, it's not legislative it's a vision more?

A. No so it's legislative proposal where the details of the targets were so the first bits of legislation were all about recycling, they were about end of life vehicles they were about batteries, so they were the first pieces of legislation. The circular economy action plan, the vision, identified a number of actions I think I think 100 or something of different actions that would have, and the commission have this chart of what happened and what has not happened because obviously their terms is coming to an end next year they want to have

achieved everything so they present a chart saying with 100 actions like spreadsheet. And the ones that are achieved are green and 80% are green so it looks like they're delivering on everything. But the details is that for example one of the actions is Ecodesign. Developing the Ecodesign working plan they produced this they did it and again because this is a new communication, it has to go through a process and again here I was the rapporteur for this and I can send you a link to all of these opinions they I have written cause they're short and easy to read but the Ecodesign working plan only focus mostly focus on energy efficiency of products whereas for circular economy ecodesign needs to include tables and you know it needs to include everything eh buildings, products.

Q. It's at the product manufacturing level, the first input.

A. The first input.

Q. For speaking about the true circular economy.

A. Whereas the Commission's ecodesign focus is pretty much on making sure the product is energy efficient which is one tiny part of ecodesign.

Q. And is it more mainly focused, I don't know maybe it's the legislative part on the waste collection so maybe at the end...

A. No, back at the design, which is so important to create the transformation, the motivation for the waste management facility to be restructured to become secondary raw material preparation facility. Not waste management. So, our own philosophy on circular economy is it's not about waste. At the moment the EU is achieving high standards on circular economy? Not really, it's achieving high standards on waste management.

Q. Because that's how it looks like, it looks like a high level of recycling, recycling of course is important.

A. But it's peripheral, you know it's not at the core of circular economy. Recycling represents a loss of raw material and a loss of energy so it's not like....I go to lot of conferences, for the first year the recycling industry would invite me to the conference would you come to the conference and I would say -if the circular economy is successful this spells the end of your industry. And they would be -no no, this is our new future circular economy and recycling industry perfect we're going to expand, get bigger. More recycling it's phase one but then quickly you need to move to phase 2 which is beyond recycling, driven by eco design to remanufacturing to repairing to reusing, not recycling especially for short shelf life goods recycling very quickly represents a degrading of the virgin raw material. You know for aluminium coca cola cans in 2 weeks they go from being extracted to be on a shelf and even if you have 95% recycling rate you're losing 5% of the raw material every 2 weeks

very quickly your virgin raw material is depleting and it's still a linear model so this is an example of even 95% recycling rates still promoting the idea of a linear model.

Q. It makes perfect sense which leads me back to the philosophy of circular economy because this is what I wanted to...I about the philosophy of circular economy as such, not the way it is received we can understand, behind the idea of circle is it aimed at reconsidering the throughput in the sense of quantity? I don't know if it makes sense because I have here at some point I was at the postgrowth conference it was organized basically by the political parties within the Parliament but it was not organised by the parliament so it was in the context of degrowth, then turned into a postgrowth kind of context but then we spoke about growth again so it's fine because it is yeah and there was an interesting question about circular economy friend or foe?

A. Ah yeah, a very interesting question, yeah I mean depends who's asking, it's not a friend to everybody.

Q. Yes what I wanted to ask because basically it was addressed to an academic scientist I can't remember exactly his name, because there was a panel with representatives of academia, business even the commission turned up but obviously they were reading their scripts. So ok it looked like it was a different conference but fine. So the answer was ok we must be careful because it's one the fancy concepts of going green but it can be used as an illusion to pretend that we can have illimited growth.

A. An illusion that we can grow?

Q. Yeah basically a circular economy a palliative in that sense that we can...

A. Keep going,

Q. Obviously we still produce more and more, we still consume more and more but obviously there is some ecodesign there is more recycling but still we're not achieving the GHG, the mitigation efforts we trying to pursue. If it is turns into the articulation between industries or adjustments to the ecosystem cycles so it can be a good thing too, aligned with the idea of sufficiency.

A. Self-sufficiency?

Q. Sufficiency rather than efficiency.

A. No I don't understand, sufficiency as having enough rather than having lots

Q. Yes

A. Ok ok

Q. Because if it's more a concept I don't know if you read about Latouche or now there is in Barcelona Giorgos Kallis about the degrowth philosophy, a proper economic model basically fighting GDP obsession, this illimited production and illimited consumption both

in terms of quantitative and also the quality of life. So, there's a lot going on and that was the main context in which this question basically was asked yeah.

A. I have lot of thoughts about that, sometimes different to with other people saying and what time is. Because I've had lot of problems with how the narrative is going ...

Q. Which is basically this circular economy rather than taking it as given concept in which philosophy does it fit? So that it can be a friend rather than just an illusion that we can ..so what is the position of the economic and social committee ? How it's been received? From the Commission it's understandable we saw it they don't even think about eco designing it's more about waste collection.

A. I'm just trying to structure my thought because I'd like to talk you for a long time about this. I'd also like have a conversation on it because I'd like to hear your perspective as well because it's constantly changing and evolving, there's new perspectives on it. I think that ok the philosophy of the circular economy that I adhere to is the same as the one presented mostly the one presented by the Ellen MacArthur Foundation, even though I don't agree with them on every approach but the philosophy of circular economy which is very close to the original to Walter Stahel. And in simple terms that there's 2 ok there's many many circles but there's 2 main circles. One is that I think people don't distinguish and so it creates confusion you probably hear people talking about the service- based business model. Are you familiar with the idea of selling a service rather than selling a product? Philips is always selling these examples; Caterpillar does a lot of works in lot of different groups. And people would say what about food? How can you include food because we produce food, we can't have a service model on food we still need to produce food and either it's wasted, how do you? So, the concept of circular economy that and how to address that that clearly is that first of all there are 2 big circles, one is to discuss material flows, hard raw materials and how they move within an economy. That's where ecodesigning products comes in it, where you have a remanufacturing repair and the planned obsolescence is eliminated and products can be reused or can be a modular, so there are components part that can be reused that's the material flow basically and that's where recycling the service based model as new business model as new ownership model fit into that. But then there is the biological or ecological flow of materials, which is organic natural materials. And I don't mean bioplastics by the way because bioplastics well because organic flow of material is usually food or trees or materials that are made of 100% naturally produced and they go back in through biodegradation back into the ecological and natural system. Bioplastics in some cases are drawn from natural biological world and manipulated to come to the material flows and because there are no longer, they're biodegradable in the technical sense of the word they

essentially biodegrade down to their constituency parts but sometimes they're manipulated so much that it takes a specific conditions for them to biodegrade a lot of the compostable cops, they end up in their landfill because they can't actually can't go in a composter in, they don't break down. So even though they're biological materials, or bioplastics or bio-packaging, they leave the biological circle and they become part of material circle and you need to manage with that in mind. And I think the concept gets blurred in the conversation even where I think that gets blurred but also this is one of the comments of the overall philosophy of it if that makes sense. The other thing I'd like to say is about the dangerous point we're at the moment in terms of as a species in terms our development and I think we've reached an interesting point of recognition of sustainability of practices, lifestyles our energy use and so on and we recognize and we go oh we seem to be fucking this up on a very big scale and that's an acknowledgment. Finally, after many years I think we're acknowledging that mostly and now it feels like we're now mostly at the very early early stages of offering solutions. And as these solutions bubble up like circular economy, like the sustainable development goals, like the Paris agreement, like lot of the solutions to climate change like mitigation and adaptation solutions -oh, let's create a carbon market. Or the work I'm doing on climate finance like yesterday it was inspired by these thoughts. And as all of those things arise solutions to Earth problems species wide problems as humans I think they're currently being hijacked by powerful vested interests that are taking away from the potential of circular economy or these other initiatives to be transformative for a new paradigm of how we live and how we consume and how we exist in harmony with the planet we live on. And I think we're taking away from that and say the vested interests in the short term the people who are interested in the short term have to think of a better word mono interest and mono focus on the economic profit as we take these new initiatives they just say can we take the circular economy and fit into this model that we have? How can we make money out of it? Even climate -Ok fuck it let's stop fighting climate change, how can we make money out of climate change? And I think it's really really we're like at an existential crossroads. And unless we take ownership of these solutions, unless like communities of people take ownership of these solutions and I think we're in a road to disaster we will have catastrophic climate failure and probably catastrophic population collapse and I think the collapse of the civilization as we know it I know it sounds very dramatic.

Q. No no I can also relate in a way there are people talking about the collapsionist, whatever it means, but I mean that's the feeling.

A. And normally I don't' speak that freely because here within the confines of what I can do within these institutions of course. It doesn't help if I say oh by the way we're going to have

a collapse of civilization people it'd be crazy extreme. You know here the work is very much focusing on what can be achieved in very small ways to change a bit of policy that has small achievements.

Q. So I mean in the bubble.

A. Yeah but I want to make you understand that all of the decisions I make are in that philosophical context and although I started to explain the role as consultative body in receiving information communications and legislative proposals from the commission we have another role that a couple of times a year where we can propose our own initiative opinion where we have the luxury as a committee to say -Ok we're responding to everything you're saying but we feel like you've missed something, there's a gap in the conversation and we as civil society as voice of citizens democratic representatives of citizens even though we're not really, we kind of want to make a statement on something, we want to introduce this topic to the conversation. And that's what yesterday was about. That was a proposal I made to say we want to talk about climate finance, and we don't want to talk about it in your terms and just reply to your initiatives because there's something missing here. And that is the money is not reaching the communities and likewise last year I've been very lucky really that mine was chosen on climate finance and last year I had one on climate justice because none of the institutions were talking about climate justice and what it meant how could we how it was important. And I think they're all very closely linked you know the so ehm philosophically I have a really worry about all of these beneficial initiatives that they are unique in the sense that they're top down initiatives, the UN the UNFCCC you don't get any more than 192 governments signing a declaration that couldn't more removed from someone in the community in rural Ireland or in rural Italy, you know UN is up there in the clouds somewhere. And the same with European Commission you know the circular economy the SDGs even, all of these things are very up in the air they're unique because if implemented properly according to my philosophy they reach they give power back to the communities you know if you implement the circular economy in the true sense you give power to smaller groups because it's about smaller circles creating remanufacturing reindustrialization of Europe.

Q. Exactly does it tackle the delocalization of the manufacturing process?

A. Exactly so instead of a product being manufactured from component part, from raw materials that are collected from all over the world, I mean that's our current model, I mean you collect all the raw materials you don't pay people properly who are working in the mines to extract them often slave labour comes into this you get the materials from conflict areas. The phones are a very great examples of that, you get the materials and then it's assembled

in a factory somewhere and it goes back around the world to be packaged and maybe back around to be rebranded as Sony. And then back around to be shipped to the different warehouse and then distributed you know sometimes products go around the world 2 or 3 times before they come to me as a consumer at the end of it. Circular economy eliminates that ok? it takes the products that are currently in circulation and then it says we will promote business initiatives that can take these back and instead of being a waste management facility it is a refurbishment facility or it's a remanufacturing facility or it's taking apart products to get back to their valuable raw materials, which can only be done in an economic viable way if the ecodesign is implemented before that so that the design (cannot be heard properly, Ed.) And once it's implemented it gives encouragement to the bigger industries who have deposits around the world and different localities to say ok we will invest in eco design for our products but then we don't want to lose the valuable materials so that it incentivizes that to have this new ownership models. When I finish with my phone Sony will say -we take that back please to give you convenience. We're going to a Sony take back centre in...where you live and I can go here you go that's cheaper for me or gets money back for it and so it will incentivize to have a local facility and people can work there disassembling, creating valuable secondary raw materials that they actually have a value. So in that sense that kind of implementation gives power and autonomy to smaller centres. Same with the sustainable development goals, the same with climate action and same with climate finance. If it's initiated properly, if it goes along the work we've tried to do yesterday because you're empowering smaller groups not even at the subnational levels to be engaged. I think that the big thing for me with the Paris agreement wasn't the 1.5 Celsius, it was the recognition of the non-state actors, I don't know if you're familiar with that and the Marrakesh partnership. I think that's a huge opportunity and these are big top-down initiatives that have the potential to reach communities and transform it. But what I see at the moment they're coming from the top down and there are being hijacked and circular economy that's the danger of where we're at with it at the moment.

Q. Because from what I could observe from the stakeholder events DG Clima, organizing like 2-day stakeholder events it really looks like the circular economy is on the sideline.

A: From DG Clima?

Q. Yeah I mean the way they present themselves...

A: You know the important thing everyone says about circular economy and not only climate but everything is we have to stop working in our individual silos and for the Commission the circular economy belongs to DG environment and DG growth.

Q: Well at least dg growth, but DG growth is not environmentalised I think.

A. The DG growth guys are fantastic they are very much engaged.

Q. Ok that's interesting.

A. No, that's the individuals working there, very good people who are working hard. Still DG growth produces design that was shit from, it was not shit it was not broad enough. The scope wasn't broad enough but as part of the opinion that we produced in July 2016 in that we proposed to have a circular economy stakeholder platform. This is actually very important I should have mentioned that earlier and I proposed that in July in November we had a letter from Timmermans and Katainen to say -That's the stakeholder platform. So very quickly we went from a proposal in the summer, letter in a couple of months later from the Commission at that high level to say this is a really good idea. We want to make this with you. And in February this is very fast by Brussels standards you know in February 2017 we had a conference, a joint conference, the EESC and the Commission, the first collaborative project between this consultative body and the European Commission in 50 years or whatever it was the biggest conference, 2 day event and we launched the Circular Economy Stakeholder Platform that had been proposed by my opinion. And I've been talked about I didn't pick it out of the sky. It's the Council that said -Hey, it would be good to bring stakeholders together and the commission said we should bring stakeholders, there was mention of it but we rolled it down and let's do this and they said ok we'll do it as a joint initiative. So, we launched this, and this has been on for one year and the platform is open to everybody in Europe and this is really important to me this isn't a small bubble thing this most of my work in the last year. I have been travelling to tell people about this and to say it exists it has website this website here, and on the website ok....can I tell you about this for a couple of minutes?

Q. Of course, if that is ok for you.

A. Ok so the platform is a joint project between EESC and the European Commission, the EC represented by DG growth and DG environment, the EESC represented by 3 members because we do everything in 3s groups one, group 2, group 3, open to everybody and we wanted to do 3 things mainly. One was is to bring together existing networks. So in Italy, Enea I think it's called they're working on the circular economy, in France économie circulaire there's a collaboration of people working in circular economy, there's a new one in Romania, there's 2 in Austria of course the Dutch have 20 things working on it but there's work happening all over Europe. Let's bring all of them together so that we connect the networks and said to them -Hey you, the Netherlands, Austria is just starting maybe you can share, you don't have to reinvent the wheel it's all about being aware of what other people are doing and that was one part. The second part was allowing the people who are

implementing the circular economy on the ground in real life the real people to have some way of accessing in the policy makers and to say to them -You know what? Your ambition is good, but the reality is part of the legislation is preventing from acting. We had a good example with Ikea to reuse the packing on their products when they're unwrapped. Do you know this already?

Q. No I don't know the story.

A. They deliver their packets I don't know let's say Germany, they unwrap them and instead of unwrapping them we can use this again actually it doesn't have to go to waste so let's be efficient and use it. But when it put it back in the truck and cross-national borders, they're told they need a waste transport license because now they're transporting waste. Because according to the legislation the unpackaging is now waste and of course the person sitting in the office didn't intend for that to happen but that's the kind of things that disconnect people from policy makers, Oh-Brussels is telling we can't do this. Often, it's just a misunderstanding so we want to create a mean for people who are working on the ground to be able to communicate and say -Can you change that because it's having an effect. That was one important thing we called it to identify where the barriers are. And the third thing was ok we had a success, ok we had a conference here and I hate, I don't hate I don't think it's very productive to have conferences where invited speakers sit at the table and then they tell you what's happening and that they have 3 mins for questions and normally when time is running out and people don't feel shy or intimidated more questions come and then it's over. So we had a conference here, so I was involved with the organization so we could just say look quick speech and let's break it into small groups, let's have a conversation let's really find out what's happening. It was really good and then we only did a morning because I fall asleep in the afternoon if it's just bla bla bla, it's just too boring. So we have a really good morning session and then afternoon is free you can go away or you can stay have coffee and talk to each other because that's why we're here for really not to listen to speeches so it's been really good. We did 2 of them we have another one in March. The final thing was ok we can have people here at this kind of events once a year, but we don't want it to have a once a year event and then everyone goes away and forgets about it. Because that's the thing that happens so we created, and I thought of this a lot unbalanced it was needed, we created another layer. It could be described as the layer of bureaucracy it was necessary for the governance of such an ambitious project. So, we created a coordination group. So, this coordination group is we have the platform which is for everybody and anybody all welcome all you have to do is sign your name and you're part of the platform. And the coordination group to help steer up the work of the platform because everyone is busy. So, the

coordination group is made up of 24 members from ehm their details are on the websites. So last summer, where is this in 2018, so 2017 we said we do this coordination group and put out the call for an expression of interests we received a 192 I think over 190 applications for 24 seats. It was a very difficult process because we had to reject some very powerful lobby groups who would say we need a place here to create a balance coordination group. So, we had we selected 6 representatives from 4 different, we created 4 categories. We wanted 6 representatives of these national networks, we want 6 representatives of academia think tanks research, we want 6 representatives from civil society businesses and environmental groups and we wanted 6 representatives from local governments , local authorities so we had a good cross section represented in this coordination. And this has been running for one year and I chaired that first year to help establishing and everybody understand what we're trying to achieve and just now I handed the chair over to members of the group. So now the coordination group themselves have appointed one of the members to be new chair of this group.

Q Thank you so much!

Interviewee 6 (07/11/2018)

Q. I introduce my project first. So basically, I'm investigating the role of the European Union and its contribution to climate action. I'm looking basically at the 2030 strategy and possibly the long-term strategy. I know that at the end of the month there's going to be like a big report to be published. Will it be public and accessible?

A. I think so

Q. Because when I went to the stakeholder events, like DG Clima organized quite a few in June and July and I know nothing can be said because they're on the process of making and economic and environmental analysis so I know it's confidential so far. Basically, this is my focus because I'm analysing the governance at the European level in the making so it's a bit difficult because it's not like everything is accessible. I'm trying to map all the actors basically involved in this process and as I can't do proper ethnography like shadowing the Commissioner doing this type of things, I'm just trying to reconstructing and doing some participant observation within whatever I get access to and rebuild the map of those are taking part in climate action mitigation policy making. So, would you like maybe to introduce yourself explaining your role within DG energy. What do you do your typical day at work what do you usually do at work?

A So DG energy? Are you familiar with the way it's structured ...these are...and I'm in directorate [...] and here I'm in the unit of [...]. So, for the past two and a half years I would

say the core of our work was the renewables Directive in the context of the green energy package.

Q. So, the 20 20 20 or ...

A. I was responsible for both the directive 2020 but also that of the revision for 2030. So we're monitoring progress for 2020 for the current directive which is 2009 one and then we developed one for 2030 that we call RED 2 Renewable Energy Directive 2, which is one of the main tool to achieve the renewable energy target for 2030 because you know that the target was set by the heads of states and governments in 2014 and after we started developing ideas work with the parameters set by the European Council and then in November 2016 we published a proposal and then the negotiations started between the co-legislators, the Council and the EU Parliament.

Q. So there's a been trialogue yet?

A. So yes the whole climate and energy package I think it's many legal acts, 8 maybe I'm not sure but it's a large number and they were all published at the same time at the end of November 2016 and then the co-legislators, the Council and the Parliament took one after the other and they split the package in two so now at first they negotiated the Governance regulation, energy efficiency, and the renewables Directive, and now they do market design so there was an agreement already found in June yeah June or July this year. June, because it was still the former presidency. So this for us the negotiations were over, now it's still legal fine tuning loyal linguist checking the texts making sure that there are no typos, there are no redundancies make sure it's structured properly and all this is now but the adoption is I think parliament vote it still this month and then in December it will be adopted.

Q. Yes, basically during COP.

A. Yes, but there's no negotiations anymore.

Q. No negotiations for that text?

A. The text is agreed maybe this is the kind of work that's happening now it's only fine tuning, no political negotiations anymore.

Q. But are you working at you can say yes no you don't have to give the details on the 2050?

A. So the 2050 is the long-term strategy...this is I'm not working on it because this is something led by Clima, DG Clima. For us it's the economic analysis unit that follows that is the contact point with Clima and DG energy on this.

Q. So you mean the economic analysis in DG Clima or in here?

A. In energy as well. Of course, they have inputs from their sector units and but it's not our file of my unit.

Q. Ok so what would you do daily basically?

A. So the big task was the negotiations until the summer which... we had to support the co-legislators to find any compromises now because we have the texts of the directive and Council and Parliament of course had different views on certain aspects then we tried to help find compromises. We had to give clarifications what the idea is about what we proposed so yes to facilitate the negotiations.

Q. It's the council a tough partner to deal with?

A. Both of them are, in different ways, it doesn't on what ...you need the agreement of both so it's not them one is more important than the other.

Q. But in the Parliament I mean technically I think you could not take into account, we hope that the Commission takes into account what the Parliament recommends and suggests ok but technically you could ignore it sorry for being that straightforward.

A. You can, no not for a co-decision process, the difference between the Commission energy strategy might be a staff working documents or a Communication. This is something that the Commission can do by itself but for a legal texts normal procedure needs to have the agreement of both and you could also see in the negotiations so for example there are...how familiar are you with the Renewable Energy Directive ?

Q. Familiar but not...

A. Ok (takes the directive, Ed.)

Q. Because there's a lot to cover in the concept of mitigation that I keep an eye here and there and...

A. Because this is not too much mitigation this is really achieving the target for a renewable energy.

Q. Which is in a way involved.

A. It is in a way of course.

Q. Rather than thinking in small boxes it's all connected, even the circular economy is involved in the concept of mitigation if we take a broader approach across all, a horizontal approach let's say.

A. Yes completely but you know there are some member states that said oh well but we don't need renewable targets, we only want CO2 targets, this is the only thing that matters, this is the position of some member states, but this is not the position of the Commission this is not perhaps the renewables Directive . We say no, renewable energy in addition to climate change has other benefits, this is why there is a target for emissions reductions but there's also a target for renewables. And if you look at the Directive it's quite broad this is the agreement this is not the final version as there are still linguistic checks, but it covers quite a broad field we check ..subject matter is always the first article , renewable target for 2030

, article 2 is always the definitions and then article 3 sets the targets. So, this article sets of course targets for renewable. This was very controversial, the Commission had proposed at least 27% of the final energy consumption, some Member states said 27 but we can't say anything about it but because we had agreed to 2014 maximum we don't want to go any further than that. And in Parliament you have some voices that said we want 45% renewables so 35 in the end and then they needed the agreement of both co-legislators when I say co-legislators is the parliament and the Council I refer to them as co-legislators because no one legislates by themselves but they have to do that again. So, they have to agree on a figure, so this was very political in the end and yet the parliament pushing and pushing to get a higher a figure and they did it, they managed. 32% target and that was agreed. And then you have how the renewable can be supported you have cross border opening support schemes so Member states supporting renewables together. The stability of support is something we think it's very important to give investors certainty when you invest in renewable you want to be sure and if you reassure that if you promise support, you're actually get the funding for the entire period that was promised. This is a very important element because when you invest in renewables well...Many renewables projects, most renewables projects like the biomass for instance is characterized by very high investment costs and then operational costs are very low because so you really you really sit on the costs that you have at the beginning and then this also defines the cost structure. So if that changes, the support that was promised at the time of the project you have a problem because you can't adapt, you can't just say -Oh well I'll burn little less fuel because it doesn't matter because you don't have any fuel costs.

Q. So, do you have experience...were you working already here with the 2020 ok we're still in this. So, the Member states should have implemented that ok. So you're also in charge of monitoring?

A. Yes, we also monitor the Member states.

Q. Is that a challenge in this respect, from the Member states, in terms of failure of reporting of not being implemented correctly?

A. No no, I wouldn't say that because the Directive has to be implemented already for a while and by now this is done in all the member states. And we have ok sometimes we have complaints from citizens then we assess them and see if they're right and sometimes we find that actually is true if the work of the member states is not in line with the current Directive.

Q. How do citizens get to you to the Commission? to DG energy in terms of...

A. Oh we have contacts in different forms so some just send an email to Juncker.

Q. Like a really direct contact.

A. Others go to the Eurodirect service for instance and the complains are take different forms some are really send a legal opinion from a lawyer, others just send an email and say oh we're really unhappy that this doesn't work in our commune. It can be in different forms. But for reporting so now the implementation is in most senses done and they have to report every 2 years and then we assess progress. So, the challenge we've seen with some member states is that they struggle to meet their targets for renewables by 2020 because in the current framework that we have we have our 2020 targets so 20%..

Q. Eh yes – 20% GHG + 20% renewables by 2020.

A. Exactly whereas the EU as a whole is on track so the EU is going to meet that but what we have is that every Member states the target was broken down for every member state as legally binding target for 2020 which depended on the GDP of the country and the potential so for instance of the targets for Germany is 18% of renewables, energy and it's energy, not only electricity, also transport,... and we see that some member states I don't know is it..five? That are struggling I don't know exactly the figure.

Q. I'm from Italy if you're I don't' know if you're familiar with...

A. Oh we can look it up if you...

Q. Well yeah why not? Actually, I remember that at last COP23 one of the side events one they said that actually renewables were a prominent part, they were not on the blacklist, we still have coal plants though.

A. This is public (while typing Ed.,).

Q. This is public because this is Eurostat.

A. You have shMiguel Arias, you have shMiguel Arias 2016 which are the latest because they take place every 2 years. No, this one is done annually but it always takes time and then you can go to and then scroll down. This is the title it shows 17.4 for 2016 and for 2015 they had to be at 10.5. The target is 17 so they have already achieved the target. There you can see where so this is electricity so 34% of electricity is renewable quite a lot of it is from hydro power as you can see here. Then transport also fairly high 7.2, heating & cooling 18. Yeah. And then you can look at the other ones, here the Netherlands you can see a bit low which should be where to they are so they really need to take measures.

Q. Which is strange, no? from the Netherlands

A. Why?

Q. I don't know I always pictured the Netherlands as renewable avant-garde I don't know.

A. Yes but if you look at how low the renewables was, in France and other... in countries with mountains they have lots of hydro this is not an option for the Netherlands.

Q. Yeah in Italy you have lot of sun and wind and you can have huge variety of.

A. Firstly, Netherlands is quite densely populated, they don't have hydro which is a traditional source of renewable energy they just don't have the natural potential for that.

Q. Yes actually, when you do the modelling, I say you but I mean the people you've been working with, or another unit, do you take into account the natural capacity of a country in your statistics or not?

A. Not in the statistics, this is when the target is set. There is a formula at the moment I don't know what the formula takes into account I think it takes into account the natural potential as well but I need to check it with my colleagues, we can do it afterwards. Exactly so these targets 2020 they're legally binding member states will have to achieve it if not we're taking them to the European court of justice.

Q. And the same applies to the 2030...

A. No, the new target 2030s are much trickier because the new target is binding on the EU level, this is where we were going to have a governance structure it's about target achievements, we're reporting target achievements and now we agreed on a mechanism where it follows a bit the Paris agreement, where Member States need to make a pledge how much they want to contribute to the target then we look at all of them, if they don't add up we make recommendations based on that formula which takes GDP and natural potential as well.

Q. The NDC are going to be revised right.

A. It follows the rhythm of the national determined contribution for Paris, that's the governance system that we put in place to ensure that the member states are contributing to meeting the overall target. But it's not as straightforward. Ok we look in 2020 what is the percentage is it in line with the targets if not ...infringement and we take them to the court of justice. It's a very straightforward approach.

Q. It's legal, but the same won't be for the 2030.

A. No for the 2030 will be a bit more complicated and this is what's been described in the Governance Regulation how this works. And the Governance regulation, there will be point where progress is assessed. If the European union as a whole is on track and one member state falls short of the ..then we ask to explain but it's not all relevant because the European union as a whole is on track. If the European union as a whole is not on track and one member states falls short of...then we need to make sure that it gets in line with its contribution. As long as the European union is on track you can free ride, if the European union is not on track anymore no free riding, but it's much more complicated.

Q. Ok, so I assume that the 2050 strategy however whichever shape will have probably follow the same path most likely.

A. We don't know yet. But what we did the Governance Regulation it's not revised in 10 years' yes will be prolonged it could continue just continue to 2040-2050 but this is probably in 10 years' time to look at where we stand, how it's going, what can be improved considering revision again. We don't know yet at the moment. In theory it could continue but I think people also, no I think if it works very well why not, not there will be a review after 10 years for lessons learnt, I also think it might change you know within 10 years depending on how the system electricity developed, you know how prices develop or the mechanisms needed. We also have in this Directive self-consumption in the renewable energy community as means to improve the uptake of renewables and maybe we try to make it future proof as we call it at the moment. I don't know how much you follow energy, and have you heard of self-consumption?

Q. No.

A. So, people putting panels on their roof and then and consuming electricity themselves. And at the moment there's a big hype about electricity sharing, you can share electricity directly to your neighbour and your neighbour could buy yours and

Q. It's an emission trading type of thing

A. Yes electricity trading but ehm these are all things that are now developing, we expect them to develop in the coming decade. So, we try to make sure that this new legal framework is ready to accommodate that but we'll see how it develops, we'll see how the regulation needed for 2030 -2040.

Q. A question for you, you deal with the renewables, but I have a question for CCS so 2020 then we got the 2030 targets the other 80% so it's basically fossil fuels,

A. And nuclear.

Q. And nuclear ok, they all work in DG energy, so is it a cooperation, so do you negotiate with them

A. Internally?

Q. Yes

A. From what I understand this has changed over the past years but I started here nearly [...] years ago it was already pretty clear where we needed to go and throughout the whole package it's clear that we need to move to renewables, the market design ultimate becomes necessary also because the market rules need to change to be able to accommodate more renewables. So, renewables is really a guiding idea throughout the whole package so we don't, maybe it used to be that there was an internal negotiation is it coal? Is it renewables? But I don't see that anymore, it's clear you know by now. Anyway, also the member states Poland and Greece they're still planning to invest in coal power plants after 2020.

Q. Germany also?

A. Not after 2020 so everybody is discussing a phase out of coal so no I don't think there is this.

Q. Because from the outside you get another impression. I don't know like I don't know for example other network of NGOs they say oh but we think that coal era is actually over but it's not we should underestimate that. We speak like it's over but it's there and we shouldn't forget that.

A. Yes, true I think it's different the way you look at the global development for Europe of course coal still plays an important role. If you look at for instance Germany there's still a lot of coal in electricity generation but at least in Europe I think investors are really reluctant to invest more in coal power capacity but if you look at figures of course if you look at Germany energy mix coal is prominent, if you look at the Polish one even more, but I think if you're going to collect money on new coal power plants wouldn't be easy for you to find it.

Q. Ok maybe it's not coal or oil maybe or other

A. Oil is not really used for electricity generation but of course oil is very prominent in transports. Transport is more than 90% fossil fuel based

Q. You don't deal with transports, right? There's a whole separate DG.

A. Yes, but we deal with biofuels for instance.

Q. Yes because I was interested in how the stakeholder around, you know the different DGs how the different stakeholder shaping and trying to influence, you know the environmental NGOs have their position, other groups like the business one have their own positions how so how it all affects and shape so is it true that...

A. Well my impression of the public discourse that I followed even just emails, events, newsletter etc. the energy transition is an objective for anybody and very few who would oppose and would want to roll back the energy transition. Yes, you hear some of these voices but they're not prominent at all.

Q. Not even voices, just to give you an example, I can't remember if it was the EU for Talanoa or the long-term vision for a modern and clean economy, can't remember one of the 2 events, it was organised by DG Clima but DG energy was there as well, so in the schedule of the day you see lot of space to renewables, that's actually very nice, we're actually transitioning and maybe you have a small tiny speech intervention by say business Europe for example that is not in line with what is being said. So, is it tiny or is it bigger? Is it tiny as it looks from the events or behind it's bigger, maybe they have a more prominent role?

A. It's true I mean I'm in a renewables bubble, so I don't know the discussion taking place within the coal lobby. But yes, there might be criticism of the energy transition but in every mainstream media I don't think there's anybody that says we need to continue burning coal and we need to let's all go fossil fuels. No this is, it's not something you hear criticism of renewables, sometimes you hear oh it is too expensive in Europe those kind of things but I don't think any serious politicians would say stop renewables, build more coal power plants at least not that I am aware of and then companies that have coal powers they want to have these plants to run as long as possible. Yes, they would probably say that, but they would probably make a greener link to that as well, it's important for the security of supply. Give us a capacity mechanism or something like this but no renewables is rare, I think. And also, if you look at the economy behind it, around the world renewables are getting cheaper and cheaper and cheaper and sometimes these are like the cheapest options for new capacity as well that also helps, I think.

Q. Ok this is good news I was just curious as it seems like some stakeholder matters more than others so how that influences how the overall strategy will look like or it's looking like...

A. Yeah for example for us, well of course the stakeholder come to us and talk to us. I mean I know based on the experience of the renewable Directive now for the long-term strategy they come to us and everybody comes to defend their own technology but we know there are lobbies, we put there whatever they say into context as well it's not that stakeholder come and -Ah well they said that so that's right. I don't have the impression that stakeholder matter more than others I wouldn't put too much in that.

Q. No no it's perfectly fine it's the same as me, when I got to these events I need to contextualise to really understand what's going on I'm there as an external observer that's why matching it with these chats with who works withing is always good. So, before I forget, when you said because my focus is mitigation, but in language, based approach there is nothing as defined as mitigation so obviously the meaning is shaped throughout the process language is performative and not referential. So why would you say renewables are not mitigation? So here in the Commission in the Brussels bubble or DG Energy think of mitigation what is meant in their minds? Maybe it's a narrower definition than the one I have in mind but I'm curious.

A. This is probably just institutional.

Q. That's good, this is what I want to hear, the European union discourse.

A. When I think about climate change mitigation I think of the activities of DG Clima , because they do these things about mitigation, building dams whatever is needed to cope

with sea-level rising or reforestation this kind of stuff and climate change preparedness all of this is for me linked to Clima

Q which is very interesting because someone else in DG Clima said climate action is not in the hands of DG Clima alone anymore.

A. Of course, it is of course whatever we say the key argument is emissions reductions but I look at it at the energy point of view and for us this is renewables and maybe at some point CCS. So, for me emissions reductions, this is for us the subpart of mitigation which is what we are responsible for this is how I use the term but I'm not sure about anyone.

Q. No no, this is very interesting thank you. And if I skip a bit to because we talked about renewables and not CCS. So is it something that is being really taken into account developed because very recently last September I went to another event and it was DG clima and it was about CCS, because it was the publication of a report of a research institute yes but once I got there they started talking about CCU. So even in the Q&A session they said yes but what about CCS this is something different. So, it was a completely different meaning shaping the event it constructed another type of reality which is which is not trapping but reusing so it will eventually re-emit in that sense. Do you deal with both CCS and CCU?

A. Ok to be fair we had a quite ambitious CCS plan in the past. After the crisis the Commission was really ready to put a lot of money into the support of development of CCS and to demonstrate the uptake of CCS in Europe for electricity generation. I think we had a project perhaps, and I think we supported with we already supported with 1 billion euros this magnitude, I'm not sure about the exact it was a lot of money and none of those projects happened in the end. So, for lots of different reasons sometimes opposition locally sometimes they were afraid of the business case and the latest one in the Netherlands when ehm they didn't want to invest in coal power after the Dutch government had decided to phase out coal. So yeah after that experience we got a bit cautious when it comes to CCS. And it looks like yes CCS can play a role in terms of mitigation, emissions reductions so we're ready to support it but we also need to see something else. We went ahead, not all the Member states followed and now, so it fell flat basically. It's still the Norwegians who are very active, the UK had a big programme which was stopped or really slowed down in 2015 I think and the Dutch are interested now and we're supportive to that as well we're supportive of the Norwegians project and think it's a positive development but it's not so much yeah at the moment there is not much happening I would say. Because also we've just had this big legislative file the clean energy package. So now before the end of the Commission we're not going to have a new legislation on CCS and. On CCU it's true that CCS didn't take off, there was lot of talk -Oh I have a new business case. So, let's take CCU but obviously the

climate change mitigation potential off CCU is not at all the same as CCS. So, I think it will be so I'm not sure you can develop a business case on that or yeah maybe you can but I don't see this at the moment.

Q. Well ok thank you. One last question and then it's fine ok as you deal with energy, energy part our daily life. Is there anyone in DG Energy or in the Commission who's dealing with I would call it behavioural change but I don't like this term because I don't know the way it is interpreted here but you know it's about energy production and energy consumption, it's about efficiency versus sufficiency. And also, the fact that we might achieve efficiency. You know in academia a lot about the idea of sufficiency that is introduced that different it means living with what you have because the efficiency the danger is that you get more energy efficient and you inevitably consume more and you care less about your consumption because oh yes it's more efficient it's even cheaper yes why not so they call it like the rebound effect of how it's called so the dangers that a logic of efficiency can have.

A. Ok I know the colleagues across are the energy efficiency unit so this is the topic for them I'm not sure they have this more academic discussion as well but I know they talk about the rebound effect as you said but to which extent the philosophy behind this is integrated within I don't know.

Q. Well I'm not sure either because the commission took part to a 2 day event that was organised by most political parties within the Parliament, the Post growth conference so there were some themed workshops so there was academia, there were NGOs, political parties, and the Commission was there as well but not dg energy, Grow was there.

A. Environment perhaps?

Q. No strangely enough no, there was research and innovation and I didn't see it as if it was integrated but you know DG energy was not there, DG environment was not there

A: Yeah, we did have initiatives to alternatives to GDP, I'm not sure if this is DG grow which goes a bit into this direction, doesn't it?

Q. But you in energy don't discuss these things about changes our energy consumption then you want more and more so does this lead to emissions reduction in the long run?

A. So the energy efficiency people do. We in a way in our proposal and also with the market design we have something about we call active consumers, so consumers reacting to price signals. The idea behind is to make the market more flexible and in a way this would raise the awareness of consumers as well to be more energy literate ah this is how it's called.

Q. Ah is it really a term that you're using now or is it commonly known as...Because, there might be research on that I might keen on reading something about energy literacy.

A. So, it's not something I made up at the moment on the spot but it's something I've heard before, but it's also not something...

A. Well people the consumers unit might know a bit more about this term.

Q. DG Clima is such a tiny DG so in that sense I navigate more easily but this one and grow are a bit.

A. This one is the coordination DG which is relevant for the long-term strategy, this one is the market dg, this one is innovation and renewables, this one nuclear (Indicates, Ed).

Q. I might contact them as well as I was reading their profile in who is who so I might have contacted them for sure, so I think that's pretty much it.

A. Maybe one point because about the Parliament or council which one is more relevant?

Q. I said that because from the Parliament I was told that the biggest most difficult partner is the council because it's the member states, it's understandable in that sense.

A. I think if you look at the European Council was the heads of states and governments and they make the declarations they want, then you have the Council of the European Union so the technical working groups and Parliament when we make a proposal these are the ones we discuss that to agree and yeah they're really on equal footing normally legislative procedures.

Q. So who goes to the trialogue? Is the council of the European union?

A. Yes exactly.

Q. Because for some reason I thought it was...

A. The European Council? No the European council is really Macron, Merkel, Conte yes but they don't discuss the details of this legislation and the trialogue at the end is the presidency the rotating presidency and the rapporteur of the parliament and on the legislation of the Renewables Energy Directive you can see they're really on an equal level. The parliament says you need to give us this otherwise we're not going to agree with that you know this is really the Parliament has just as much power as the council I would say. And in terms who is easier to deal with? It depends because your idea might be closer to the ones of the European parliament but they're politicians. So, it's easy from administration to speak with other administration just because it's easier to follow their approach because it's similar. I think both of them are. During the negotiations we talked to them and both sides come to us and request information, we gave the information, we tried to help find an agreement, but the influence is the same for both. For the long-term strategy, I think it's different because as far as I know it's a Commission document only so we lay out how we see the future. And then we also have the Parliament make a declaration and all the initiative report which we

had to look at, but we don't have to take on board these positions. So, it depends on what kind of procedure we're talking about.

Q: Ok, thank you!

Interviewee 7 (13/11/2018)

Q. I would introduce myself first and I would give like a brief recap. So, basically, I'm analysing for my PhD project the EU's climate action contribution, so what we're doing here is because I'm backing up with interviews, I'm doing some participant observations. For example, yesterday I was at the raw material week, I've been participating to DG Climate stakeholder events like the EU long-term vision for a clean and modern economy, so basically I'm backing up this type of participant observations type of ethnographic work with interviews of people within the Commission and discuss their role. So, I'm mapping these actors and institutions and those actors and institutions informing climate action contribution with regard to the concept of mitigation. So, I'm not taking mitigation as a taken for granted concept, but I analyse that in the making so this is what I'm basically looking at. So, if you don't have any further question, we can you know bring them along during the chat, it's more a chat, than an interview. So, would you like to introduce yourself first and tell me what you do, even like your typical day at work, what is your role within DG energy and your unit specifically.

A. So my name is [...] so I work for [...], which is general energy policy coordination unit in dg energy. My task is coordination between climate and environment and a follow up of their proposals and the whole interservice processes. Basically so for this dg I'm basically policy coordinator so my daily work is to be an interface between the different DGs when there is an interservice consultation on going you're probably familiar with the process of every DG having to consult other DGs before they come up with a common proposal.

Q: I'm not familiar with that because no one so far has brought that up. So, I have always assumed climate action involves so many things and you will have to communicate with other DGs, so if you could please explain that back to me because it has been kept vague.

A: That might be my main contribution to your interview.

Q: Yes, because probably you're the first person who is coordinating in this intra-institutional role the other ones were more technical staff doing economic quantitative analysis and these types of things so obviously they don't deal with.

A. Specifically, I'm not policy officer, I'm policy coordinator so I'm not looking into technical details as such but I make sure that things end up with the technical people within different units. Let's say in general if DG climate has a proposal on a new target or an

adaptation strategy or whatever what we usually would do is to have a preparatory process, prepare an impact assessment and usually impacts assessments are followed by steering groups which is already composed of members of different DGs which are directly involved so most of the climate files, energy would be one of those or also grow, agri and so on and then there is a formal stage of consultation once the proposal is finalised, once DG Clima has come up with a draft directive or a draft communication in our draft text then they have to do an official interservice consultation, where they contact all the other DGs which might have an interest for example, the legal service and secretariat general and so on. And then there's a limited timeframe in which official comment have to be sent to the lead DG climate in this example, all the other DG are lead-DGs and they consult procedure system in the informatics to put in the official comments signed by hierarchy and so on and that's formal part of the interservice consultation and the lead dg is basically more or less obliged to take into account the comments given by the other services in finalizing the proposal before it goes to the cabinets and the commission level to become adopted ad an official commission position.

Q. So basically, with regard to climate action mitigation but also adaptation, DG Clima is the lead DG so proposal come from there or does DG energy also come up with a proposal?

A. DG Energy also comes up with a proposal in this area. The Directive on renewables policy, on energy efficiency policy that would be DG energy who does the impact assessment who does the whole preparatory work with input from other DGs like climate environment group and so on and then it's us who are the lead DG who have an official interservice consultation in which we gather the comments from other the other DGs finalise our proposal and see DG energy proposal. So mitigation is of course to a large extent energy policy so lot on renewable energy efficiency would come from us as lead DG but the process is always the same: there's always cooperation already before the proposal is there as such in the preparation of the proposal and there to have the final proposal there's always the interservice consultation process.

Q. And this happens before it goes to I don't know Parliament, the amendments.

A. Yes, this is an internal process in the Commission.

Q. Before it is actually adopted as the commission proposal.

A. Afterwards there's the Parliament and so on, there's a lead DG who is doing the negotiations, but when there are crucial stages in the process where we have to adopt our position then there is also a communication and consultation between the other DGs further in the process, the intra-institutional unit who is there coordinating that part, so my part is

before the commission proposal is there or preparatory process. We also go to things like stakeholder conferences to have an idea on what's happening.

Q. But usually the stakeholder conference takes place after.

A. Stakeholder conferences are usually before. There's different kind of stakeholder conferences. There are some which are really meant to fit into a process and there are conferences like the raw materials week for instance which are stock taking, also kind of seeing where are we, what are the feelings of industry the progress in the different project we're financing. So, there are different kinds of conferences.

Q. So the ones like EU for Talanoa, the EU long-term vision, I mentioned them because they were in the summer and they are during the process so EU for Talanoa has been since last COP so I assume it's all preparatory.

A. They feed into a process, so that's before these kind of conferences, and then things like the raw materials conference for instance which I'm not following a little bit, it's more like follow up of our policies presentations ongoing work and so on, so you have different types.

Q. Which is very useful because all of these conferences if you see them out of their proper context it's really hard to grasp the meaning. So, what is the purpose of these events I'm assisting all the actors, all the institutions organisations research groups I mean sometimes it's very wide. So, in this preliminary phase so you come up with a proposal, we say interinstitutional negotiations, so it goes outside the commission, I don't know the parliament, it goes to the trilogue it goes back to the commission.

A. After the proposal, it goes back to the Commission we have to accept also the changes. If the Council and the Parliament really come up with a totally different thing that what we have intended the Commission can even withdraw the proposal, that's very rare but it has happened in the past if it's really not anymore what we had intended.

Q. Did it happen in climate/energy?

A. On climate and energy as such not really but it happened with the energy taxation directive for example but that's Taxud, it's another DG, then there was a proposal quite some years ago and it took very long cause it's fiscal issues, taxation issues very sensitive for member states and there the Council (Incomprehensible Ed.) down so much that the Commission at some point decided to, this is not our proposal anymore so, we stopped and we'll reconsider, we will put something new in the future so we...it happens that we withdraw something but it's very very rare. Usually the whole preparatory process is already also building on Council conclusion or reports of the Parliament before so we know a bit when we prepare a proposal so we're not going to propose something which is completely impossible that we will know it won't be accepted by Parliament or Member states so we try

to take it into account already a bit when we make a proposal. Well exactly we don't come up with things that cost a lot of time and then it's completely impossible, that is also one of the purposes of the stakeholder, in the run up to see we had some views we're thinking about this in these kind of options science tells us this this and that.

Q. The clash between the ambition and what is realistically feasible.

A. What the industry sees as feasible, what the ENGOs think is feasible of course they have different views we need to be somewhere in the middle to get it right.

Q. You're the negotiations, the mediators in that sense.

A. There's a bit of negotiation in the process with these conferences and the whole thing go for the internal talks between the services when one DG says for one or other reason we have difficulty with other aspects because we feel it's in contradictions for instance with some of our directives and legal services that EU can't really do these types of things, it's also kind of feasibility study we're looking at what would look as acceptable for the Commission as a whole and not just seen from the perspective of one service. That's what our renewables colleagues would like to have very high ambitions in terms of renewables then you might have for instance...(brief interruption). In the renewable sector, I was saying, in the renewables people want very high target, you might have DG grow, DG Ecfin say -But this is going to be very expensive, how are we going to finance that? This kind of technical question from their perspective. So, the renewable is not the best question because it's more the member states who would say whether it's feasible or not so there are tendency within the Commission to agree on ambitious targets.

Q. Yeah, I mean also in the way of defining the target

A. But like for energy it's a bit difficult to give another example but let's say if...uhm I'm thinking of a good...let's say that DG Environment would like to come up with something restringing on the use of pesticides for the use of chemicals, then DG grow might say -Yeah but industry needs some of these products and there are lot of jobs involved within the European union so you can't just abolish certain chemicals you need to have a transition period for instance allowing for the industry to do that. So, in that sense there's also a kind of compromise already within the Commission before the proposal is there and then once the proposal is there, it starts again with Parliament and Council.

Q. Do you listen to the ENGOs also like CAN Europe?

A. Yes of course, they all come to visit us or speak for high targets and for ambitious policies and then we say -Yes but we have to see what is feasible, what Member states can do and will be willing to do. So, we try to temper a bit their requests of what would be feasible in the end but of course we listen to all parts of society and they come to see us with their own

proposal but also the proposal of climate and environment. But we explain also like an energy company comes to us, and say Clima or environment are trying to propose this and that and from our energy company perspective we've had different views, we've had certain problems as DG energy we would like to ...of being aware of these problems so that you can take it into account in your talks with Clima and your comments on their own proposals.

Q. And how does this all fit into the wider constraints of the Paris agreement? Because, that's the point of the new IPCC report 1.5, the other one was well below 2 degrees.

A. The EU as an institution as such, the Member states have ratified that, that's the main background, the framework the context of the proposals and then of course there's a question of the impact of the EU on the overall ...

Q. It doesn't account for 100% of the emissions.

A. Yeah exactly it's much less in that sense that's of course what is framing our thinking, that's the recital when you look at our formal proposal it's always referred to our global commitments. But then of course it's not the EU which is going to make the 1.5 targets being reached. Even if you shut down completely the whole EU it will have a marginal effect on the global scale as long as the US and China keep growing. It's guiding our work but we always have to think of our competitive position also and do whatever we can in terms of high emissions taxes but then if industry then moves to China, then we will just have lost jobs we would not have an impact in the end anymore on pollution emissions so we have to balance a bit in the negotiations but Clima can talk better about that of course. It's a bit of a thing we have this kind of conditional commitment also. We will do like 2020 targets now, 2030 targets this is what we are willing to do and we're willing to do even more but then we would also like to see other countries in the UNFCCC do more especially the big emitters so if you do more as well we will so scale up so there's a bit of negotiations game...

Q. Do you think like if they don't do more the European Union...

A. I think the European Union will still go ahead for internal reasons, like renewables is not only about CO2 emissions, it's also about the security of supply, the more we have biofuels the less we have imports from OPEC countries, so it also makes economic sense, to reduce like air pollution, these kind of elements also play a role in our proposals, energy efficiency is also not about CO2 emissions but also about savings it makes sense in the economic sense.

Q. Does energy efficiency actually lead to a reduction of emissions or are there any flaws in the way energy efficiency as entirely dependence to fight rising emissions lack some complexity?

A. Well it depends on what type of energy you save basically. For now energy savings, if you look at overall energy savings mix within the EU part of the savings will mean less coal

and oil burnt in the EU because it's still part of the overall mix. The moment we would in theory be completely relying on renewables in theory or nuclear or whatever, energy efficiency will not have impact anymore, but it can still be interesting as we don't need so much energy which is produced in...we can use resources for other things.

Q: I was thinking of what the so called I don't know if you're familiar with the language, the rebound effect you save one energy on one side but then you want produce more and more because you're efficient on that side so it doesn't, like you don't stop it's never enough so you will reinvest and in the long run this efficiency the fact that we're led to have always more and more so maybe It's an equation that it's a bit narrow.

A: I see what you mean but I don't think we're at that stage yet we're still in a situation where too much energy is wasted where we can still improve. I don't think if you have more energy efficient house then you will have by definition turn the heating on a bit more. You will get a comfort temperature. You will not necessarily spend more energy because you can do it in more efficient way I think.

Q. I don't think that people and citizens are energy educated in that sense I don't know if there's anyone who should integrate is there anyone in DG energy talking about behaviours and change in the sense of attitude and habits in their relationship to energy?

A. Of course there's a lot of awareness raising and campaign, like sustainable energy week, like there are a lot of sustainable energy campaigns that are being run, there are lots of things happening locally, covenant of mayors I don't know whether you heard about that it is something to incentives local action, there's lot of campaigning and things being done also outsourced in a way that it's not just the commission so we also rely on Member states to do their part and they have more direct contact with citizens if they commit to certain targets for their country then it's up to them to see how they will reach it, whether they will do more in public procurement for instance or whether they will count more on awareness raising for citizens that's really much dependent on member states where they see, where the biggest problem is. It depends on the member state finally.

Q. You also monitor member states behaviour.

A. We monitor, we have there are national plans to be produced under energy efficiency and renewables legislation, some member states have to report if they are not doing well, we'll write recommendations and so on. That's now in the new proposals the latest proposals for 2030. There's also the concept of governance. Member states have to come up with national energy plans something that's very new that is the first time they do that by the end o. The year, basically so in the end they will go for these plans for we give them guidance like you're doing well but maybe in these areas you can do better. The same is happening in other

policy areas during the European semester, the energy union, which is all of member states reporting, the Commission getting back on them and saying -But you could do a bit more taxation you could do a bit more on this, you could do a bit more on that. DG Environment has its own environmental implementation, reviews where they look at what Member states are doing on waste, air quality and so on and telling them this is good this is not so good and there's of course the legal way so member states that are not really complying we can take them to court.

Q. Ok can you bring the to ..ok with the 20 20 20 targets I think because it was more legislative but with the 2030 and the concept of governance can you still take them if they're not compliant?

A. They have to put it into their own legislation if they don't do that properly then we can bring them to court, if they don't send their plans and so on well we don't take them to court immediately , there's a notification.

Q. You give them time to rectify.

A. We give them time we say hey we're watching you, make sure you do so, in the end it's a long process , political pressure and a bit of peer pressure between member states you don't want your government to be the one with the worst reputation in terms of compliance with law environmental law. Of course, NGOs would blame for that so look this country is not doing well so they will put pressure on national governments. So, it's also a process which comes from many sides, may influences to put pressure on member states once they have committed to something they should also comply.

Q. And if I can, I know that not much can be said about that with the 2050 you know there's a report coming now, at the end of November it will be presented at COP I think probably It's more like a pathway indicating scenarios.

A. It will be a commission communication, so the views of the Commission, its options, it's quite secret for the moment. Basically, the idea will be to say -Ok we have a challenge there, these are the main aspects of the challenge and these are the main elements we see it like to be a sort of analysis. We do well these things we have to do more these things, we could work more towards renewables we could work more in research, there are different options different pathways, this is the starting point of a discussion. Once you have communication the Council will react to conclusions and say -Oh, we welcome the Commission proposal and then give few of their own views from what can be done, what could be feasible by 2050, the Parliament would discuss that in its committees and on the basis of that but that will be for the next Commission of course.

Q. And yes, that's what I was about to bring up, so what about the next Commission? All that has been down will be brought forward.

A. Yes the 2030 now it's in its final final stage, it's just a formal confirmation of the formal texts, I think it's even ongoing in Strasbourg conference during this week and normally for that you should check on the website where the exact state of phase. At some point there is a kind of political agreement for 2030, but then there's a whole process of the translation, you know all the different languages, in the Council there's a group of jurists linguists they're called, they really look at the conformance of all the different text versions before the final final adoption which is done once the political agreement was there. So that's in different stages but that will be finalised by the end of this year still so it will be finalised by this Commission. 2050 will only kick off this process.

Q. So it's up to them you say these are the options, this is the challenge.

A. A basis for discussion we in the Commission jargon they're called green papers and white papers. The green papers are documents in which the Commission comes up with a proposal but proposals not in the sense of high draft directive or draft regulation but more like -We could do this, we should invest more in this, but then how, with which exact targets and the nitty gritty which is in the directive is not yet in this such green or white papers. Green or white papers to open a discussion, to have done a series of stakeholder events, public consultations of course, we did mention that but they are all online that's when we talk about stakeholder conferences it's usually quite focused on European business association and European NGOs but online consultation are really public and everyone, every citizens can send reactions to that. That's also always part of the first process going into a real proposal in parallel with impact assessment which would evaluate the cost benefits, the figures of the economic analysis which has to be at the basis of proposals which will bring inevitably costs to member states, so we have to calculate costs and benefits of each proposal. And in parallel there's also always a public consultation to gather already the first views of the public abroad of course although the reply also comes from NGO, from business but also from individual citizens or some towns, Member states also reacts to these consultations so that's also part of the consultation process before there's a proposal.

Q. So, the 2050 is a green...

A. We do not call it like that but kind of, maybe the next Commission will call it, because usually I think green papers usually have actual questions, green papers more have like actual questions, in a green paper the Commission would really ask what do you think should we regulate in a certain area? How should we do it and so on what papers usually have concrete proposals, so we listened and then we there's a list of 15 options for instance to

make in transports. We did not have green and white paper recently in energy but transports had one not that long ago on the future of mobility in Europe so that was more should we go more towards rail, should we ..and then a number of an number of possible options, policy options, and which and which of them will end up in formal proposal depends on reactions you get on the white paper, it's also a basis for a consultation, it's not that different basically usually white paper are much more voluminous and so on, a communication is shorter as such usually it's accompanied by staff working documents which will explain the context and the underlying analysis but the staff working documents is ...it's a working document, it's to show what the Commission has been doing, it doesn't have a political status whereas a communication from the commission comes really from the commission as a political body, it does have a higher status. A staff working document is just for information of the public, to show what is in the communication we don't just have written that up we did some analysis models on different scenarios. So, it's more technical aspects so whereas the Communication is a political message basically. Green and white papers have been less in fashion for the moment, but they were used a lot by the past Commission. The current Commission has done a lot on tackling climate change, adaptation, as there have been green papers and white papers. Clima and Move would have the latest, or the most recent experience with green or white papers processes. These are usually quite substantial documents, Communication is shorter and the background information moves into staff working documents.

Q. Do you work with DG growth?

A. It's not me personally, it's the colleagues, we also do yes of course because their proposals have an impact on energy and so on environment and vice versa. What we propose on energy efficiency will have to be done by industries so what growth thinks is feasible, if there could be at interlinkages in terms of carbon capture and storage for instance that originally was something thought for the power sector. But now we see it a lot of potential for carbon capture and storage in in some sectors of industry like in the cement industry for instance, we could do things on CSS, we need CSS is basically handled by DG Clima, it has strong impacts environmentally or environmental aspects. It's industry which needs to be more involved than it was in the past because the power sector is really not taking off because it's really too expensive so that's a typical file where you need to work together also the research with the joint research centre and so on we have projects looking into the feasibility and also important partners and everything else.

Q. Ok two questions building on what you just said. One is the interesting case of the CCS because I don't understand really I think, there's been a shift in meaning because it was

recently I went to a DG Clima stakeholder event last September it was on CCS but once inside it turned out to be completely about CCU, which is a different thing. Because, obviously you would re-emit also the fact on how to measure that so that the impact and mitigation potential is not very clear in that sense. So, in the Q&A session someone would say, -Ok but we were talking about CCS, so what do you think? Like now it's CCU and no one is talking anymore of CCS because it's too...

A. Yeah, we tried CCS, the idea was to promote CCS that was the initial idea storing underground and so on but then we have seen that it's very difficult that very few industry players who were power industries, and so on those who were willing to do something have in the end given up because it was too complicated, they need to get the necessary permits it was too much local opposition because carbon capture and storage particularly has storage aspects has its dangers at least it's perceived as being potentially dangerous to have large stocks of gas underground. So it's difficult to sell it to the public and for these kinds of reasons we now see what use can be done, ways also how to keep it out from the atmosphere for longer and then things might evolve we later on might be able to find better solutions. I see also this evolution I don't know where it will end up. We're still very much in the project, we'll see there was this new entrance reserve under the ETS which was meant for innovative renewables and for CCS. Un the end we didn't get any CCS project which was finalized because of the problems because basically the project were abandoned before coming to maturity so now in the new ETS as of 2020 there will be an innovation fund which is basically the same principle as a new entrance reserve it's also meant to finance innovation as the name says but it's broader it also includes projects for industry for instance, we know that that one will be more successful but it means to be seen in the future. The problem remains with the high costs on the one hand and public acceptance which was much more difficult I think it was initially thought. If public acceptance is a problem, then member states become more reluctant and at that time it was something which was underestimated very nice as a technical solution but stumbled over the economic and societal environmental concerns.

Q. Maybe I will ask one last question. the JRC is a DG right?

A. It is.

Q. I don't understand its role. And as you are the coordinator, I assume you're better than me, what do they do for you?

A. The JRC does research for the Commission basically. You have a DG RTD which has basically the money and which has big programmes, framework approaches, yeah innovation development they cover all that. What's the difference? They do the political part, they set

political priorities in which to invest the money goes to research consortium of industry of academics, technical institute so all kind of European consortia or broader international consortia. And also, the JRC is also doing research for the Commission but then asked for specific topics by specific DGs. They're basically research institutes but which is from the Commission itself but which directly works for the Commission. So, we can ask the JRC to look into specific issues in the preparation of proposals and so on. So, part of it is doing through framework programme and so on part of it is done in-house through the JRC.

Q. I also have an interview with research and innovation.

A. They can explain more what the relationship is between them and ..I think it's that mostly the RTD is political but they're not actually running models themselves whereas the JRC goes into concrete projects, they would be the ones going to Antarctica or doing the operational things.

Q. Running the experiment.

A. Running the experiments let's say, while the RTD looks at different proposals coming from the outside checks afterwards whether the money is well spent, looks at intermediate reports and gives guidance to the Consortium while doing the research so they have more than kind of political control but they can explain much better themselves of course. Because these are only inter-services meetings and so on they're also telling what they're doing what can be useful in terms of what is in the pipeline of different projects, what can be expected in terms of research results by when and JRC has the same - We have this and that we can re-orient it more directly for us we can re-orient it we can have a look whether this or that is feasible then it's a decision again whether we do that with them or whether we outsource them but the other DG will be able to tell you.

Q. Ok if I may ask one more thing because as coordinator you said you also work with DG environment. Circular economy: do you coordinate in the sense that, it looks like it's always on the sideline well if it makes sense that it should be more mainstreamed, I mean all the economy has to be circular to make it work, it's not that there's mainstream economics and then there's the circular economy.

A. Circular economy is run by Sec gen, Sec gen is the leading DG, well sec gen is not a DG, so they coordinate.

Q. Can you spell it?

A. Sec gen, secretary general,

Q. Ah ok sorry, I've never heard of this institutional, I can use it next time.

A. We say also SG, so the general secretariat who is anyhow the coordinator of all policies of the Commission, whether there's a conflict between 2 DGs who want to deal with the

same topic then the secretariat general can say, no we think, basically a political decision, they're more political than DGs they're not technical they're more political they're more coordination tasks. In one sense they do arbitrate between DGs and their conflicts and for things which are as you said correctly things which need to be mainstreamed Commission-wide like circular economy, then the secretariat general will play the main role to coordinate and make sure that both DG grow and DG environment and the others are all doing their part. Like plastics strategy is something which is done in close collaboration so you could also have 2 DGs working closely together, but if you're talking about something like biowastes then which is very broad, that's environment that grow, but it has a link to biofuels and incineration matters so it's also a bit of energy. So and that is done usually I do with different DGs together and then with the general secretariat that's kind of I'm looking at that overall so in practice the circular economy the secretariat general is the lead and the others are contributing in their specific areas with proposals. All the other DGs prepare proposals in their specific areas but it's about wastes, a recycling more something for DG env, when it's something see circular economy aspects which has is very linked to one industrial sector then it could be rather DG grow who looks into our sustainable buildings for instance and search building materials that's something that dg grow would come up with proposals in that area the circular economy is indeed quite widespread in.

Q. But is it tiny because it looks like it's still tiny economic model it's from ecodesign

A. I think circular economy is something which really got some momentum under this Commission previously it was not so much in the picture, it takes time because it starts with Communications and then it results in proposals.

Q. And as you mentioned the secretary general, I have an actor which I don't know where to place and this is the EPSC because I contacted them they said yes and then said no but they're everywhere.

A. Yes whatever it...it changes names, so I don't know it exactly myself because it's a think tank.

Q. Ah, they're a think tank because I think they have been created by this Commission, Junker wanted it.

A. We had something previously which is called BEPA, ok, it was like the Bureau of Policy Advice but that is more something which like a think tank closely related to the president and its cabinet whereas it changes overtime.

Q. Are they influential?

A. I think they maybe have influence at the political level as a think tank to give you an idea about circular economy but they're not really a large bunch of civil servants putting together

and really coming up with a proposal organising big meetings and so on I think they're rather small I think even it was quite obscure.

Q: Do you work or relate to them in some coordinational aspects?

A. No, but that's not really on the record, sometimes they show up in meeting and I always wonder what's that again? Oh, yes it must be them. they're not really involved at our level.

Q. Ok because I've seen them everywhere, especially one actor, one person, at all the stakeholder events they're also coming to the raw material week, I think tomorrow yeah when there is this 6th annual conference and I say ok they're everywhere. Because I was thinking if they're closely related to Juncker they must be, so they avoid all the interinstitutional negotiations process that goes here within all the DGs they have direct access, they're even more powerful for the fact of being close to Juncker.

A. Yeah I think in that sense they influence documents which are more general on a higher level but ...

Q. Which type of documents, I mean not specifically...

A. I mean communications for instance, some communications are really drafted by services, if it's a communication on more technical topic. If it's a highly political very broad like circular economy for instance, there they would influence more because it's before such a broad topic you could have agreements with all the services it might be a bit complicated and then who would need to hold the pen. I think the secretariat general is maybe often the person who is often writing up most of the ideas of the think tank, it's more of a link between Sec-Gen and the think tank and services.

Q. And when you mean services you mean the DG itself you mean the bottom. I have met in vary random way some Italian you know there's plenty of Italians who said yes I am DG clima, but I am in the services so what does this mean?

A. The service means the DG not the directorate general but of course the directorate general runs a hierarchical structure and the directorate general speaks of course with other directorate general and they have the contact with the cabinets and so on. So, if you work together directly in small teams that the directorate generals have and you're closer to the political process. So whereas services everything under the directorate it's just people who do the daily work I don't know how the political structure is in Italy but like in France or in Belgium minsters would have cabinets of small groups of 20 -40 people who work directly for the minister and when a minister go or are dropped in some place who are really directly working for the minister like that commissioners also have their own cabinet quite small usually. But that's the political level as distinguished to the services people who have long-term contracts and deal with the technical things so it's a bit jargon we use. But if somebody

says services it means not high level basically, it means just normal fonctionnaire, a civil servant, I'm not involved in the political decision making. Whereas people from the cabinets and people who work very very closely together with the directorate general, his assistants they're a bit higher at the political level there.

Q. But the heads of units are involved in the policy making.

A. Not really they're intermediate level, if you don't find a solution, if you want to make sure that the others contribute you send this to head of units level, so then you have the Director's level which is already a bit more political and strategic cause they have more an overview but still I would not call it a political level, it's directorate general and the cabinet and the commission which are more on a political level anyway.

Q. Ok so thank you.

Interviewee 8 (14/11/2018)

Q: So first I would like to introduce myself I would just say a bit of my project just like an introduction so I'm investigating the EU contribution to climate action within the framework of the Paris agreement, so basically at the moment I am trying to make sense out of the policy landscape, so I'm interviewing all actors and institutions organization that make our climate action with regard to mitigation, so I'm not taking the mitigation concept as taken for granted but I'm seeing what is shaping and who is shaping the content of the strategy, so I'm looking at the 2030 and possibly the long-term vision because I know you're about to publish on 28th, I'm going to COP as a follow up yes, so straight to the point could you please introduce yourself and say a bit more what you do the directorate in which we are, so this is directorate C, I interviewed someone else in this directorate as well what's your daily job as well, so if you just want to speak about yourself and your role here.

A. Ok I'm [...] in energy efficiency and my job is to reduce Europe's energy consumption and yes.

Q. Ok so you deal with energy efficiency so as [...] do you coordinate?

A. I mean, what do I do? I spend half of my time reading emails, a third of my time in meeting, and I third of my time probably having informal interactions, with people in the team and beyond. That doesn't really answer your question.

Q. No no it does, it's like free speech it's a very unstructured interview so it's really more like a chat.

A. I mean what do I do? I mean people there are two tasks as a manager I think, 3 tasks really, related to the people you manage which is really to make sure that the good ones are doing the right thing and help the middling ones to do good work and get rid of the bad ones, I

don't have any bad ones, not really anymore, I have middling ones so I have very good team leaders , people know how to do their work so my main job is to focus on resource that we have on the in a way that will lead to a change.

Q. Ok, whether coordination is a question and the people you say you handle at meeting are related to the vertical structure or the horizontal or other DGs for example DG clima.

A. I mean, half of the time I spend in meetings probably 40% is with the people in my unit, 40% is outside the commission, and only 20% is with the rest of the DG and with the other DGs so my job is that's the orientation of my job and most of the work until recently most of the work outside the commission and with the other institutions , because we've been negotiating legal proposals, so I don't interact with DG Clima as often, I seem them in the same corridors as I am in because they do the same thing but yeah.

Q. Ok so you said outside the Commission and with outside the Commission you mean the stakeholder?

A. I probably I mean, the use I make of my time is more with the Parliament, with the Council, interinstitutional stuff, I mean we do so many things there's an infinite numbers of stakeholder, I mean I do meet stakeholder from time to time, but that's not my ehm there's not a single counter-party, if you say what I mean, there's no equivalent, in unit [...] in terms of single stakeholder organization, the industrial organization which is the opposite of most of the things the unit is doing , at least electricity. So the people who deal with the Europump, is a guy who is responsible for pumps, and I meet the people from Europump but a lot of our work is meeting associations as Europump. Do you see what I mean? It's much more fragmented.

Q. Ok so you said you work a lot with the parliament and with the council you mean governmental.

A. Energy

Q. Energy Council

A. We are most of us staff that goes to the energy working party to the EU trade committee we have staff that goes to the environment working committee and we have things which go the ENVI committee, but they're much rarer.

Q. Yes, so all the proposals is made here you need to under your superprovision, the nitty gritty.

A. I mean so we must of our staff is either under the energy legal base or the internal market legal base. Before we had the energy legal base on the Lisbon treaty the energy which is now under the energy legal base would have been under the environment legal base. But now we have energy legal base so we're under that one.

Q. Ok makes sense yes cause it's very hard like to reconstruct all the different like networks which is but I'm going to try and what about you said you spend not so much time with other DGs Environment, the ones that are related to the environment, to climate action in that sense, so do you feel it affects your work?

A: I mean my team, we're talking about thematic DGs the key ehm probably for our all are equally important which are DG grow DG Clima, DG env DG just so these probably the four that we have most interactions with ehm.

Q. And are there any maybe I don't know challenges in terms of... I don't know I assume building like a coherent line of direction.

A. I think I mean each of those DGs, I mean each of those DGs are I mean we do energy policy, so we're not so interested in what they do. It's more they are interested in what we do. So each of them wants as a emphasis they want to see what you do but at the same time we do a lot so we are like a train so it's not so difficult for us to pop behind our train and consumer carriage or an environment carriage or a jobs carriage did the jobs anyway. So, nobody really thinks that making energy efficiency does harm to their aims so broadly it does good to all that can attach to our train. So, we might feel there's too many carriages that are part of the train or something like. But there aren't really contradictory interests in that process, I think.

Q. But at the end as far as I know you negotiate like interinstitutional or intrainstitutional, so the final position is...

A. We negotiate, we negotiate, we negotiate, but compared to other jobs I've done here our staff is our staff and yeah there's really the sense that other people yeah I mean our staff is our staff and nobody is against doing that in principle I feel. So there's no real debate whether the Commission is doing these things we do it pretty well in my opinion and therefore there's no sense in which we leaving a void where you look at the debate in transport policy there is a there is, it's more it's a bit more complicated there because in our area it's not particularly complicated inside the Commission.

Q. Do you also have contacts with the JRC?

A. Yes we did, we have contacts with the Petten on heat energy efficiency, Ispra on general energy efficiency policy, with Sevilla on modelling and with Sevilla on product efficiency so we have a lot we like working with them and we are concerned that applies across all the policy you tend to end up overdependent for your consultants on one firm because the more contracts they win the more specialized they get the more able they are to win because of the tenders in a fair way and therefore we would like to see the JRC to becoming more effective as an alternative effective competitor to our private consultants, we do want to stop

using private consultants, for we see the aim of the Jrc partners is to keeping competition [Incomprehensible, Ed] markets.

Q. And also, one thing, this one is also procedural then maybe we can speak of the energy efficiency kind of thing. Because it's the role I don't understand of the EPSC so do you work with them or how can it be grouped because it's like a think tank but it's close to Juncker so...

A. They had a big impact on the shaping of the November 2030 Clean Energy package and they are having a big impact on the long-term strategy 2050 so they have an important role in policy making we know them and when they ask for things we give them but our staff is a piece of the jigsaw that they make if you see what I mean.

Q. Can you elaborate more?

A. For example, in the package there was an emphasis on consumers that our stuff doesn't need to be altered in order to be pro-consumer. So they certainly helped ensure our stuff was in that package which might not have been I suppose partly because we feel we helped fill in the consumer in the jigsaw but the fact that there is a consumer space that needs to be filled, that the story is one of focus on consumers and not really involved in deciding what the story is, do you see what I mean? That if the story had been one that said building pol...so see abating all costs, building policy is a clear infringement to subsidiarity we need to step back from building policy for example that story would have less place for us and that would have been life. Do you see what I mean? I mean it happened that story I mean I'm happy I agree with it but the story that it's told seeing the role in deciding the story that is told and we fit we asked our staff is part as happened with all of the things that they want to do fit in the story. but it couldn't have been otherwise. if it had been otherwise it would have meant that we wouldn't have been able to do some of the things.

Q So, your role in the 2030 or the 2020 also and the 2050 strategy, how does it fit? So, when they talk about ambition. Targets, is it you in your directorate?

A. We received instructions to review our legislation. I mean the legislation had review clauses but that is not the same, we received instructions that the legislation need to be reviewed as a part of. Number one. Number 2 we had identified finance as being an important non legislative thing. I mean not the money we spend but the sorting out the market and so we continuously said that that we were told that was the right thing to do as well, you don't just need to do legislation, we need to look at finance as well. Then we go off and do our examination of all of those things and then we present our examination to all of the internal bodies that need to take a view on. The decision and the proposal of the commission for energy efficiency would be 30% already taken in 2014 and we did the analysis which was

used to make that to draw that conclusion but we yeah I mean it very, very it's not unidirectional any of this...The original idea was only to assess 27, 30 and 33% but the Parliament was annoyed because they proposed 40% and then it was because of the Parliament rather than because of us that 35% and 40% were added set up option which was re-evaluated in our impact assessment. We consistently said that the impact assessment showed less than 30% was stupid and more than 35% was a point at which cost start riding faster than benefits without saying anything about what the political judgement should be so 30% was the bottom which the Commission had proposed was a legitimate thing to propose. But there was also a range above that which could also have made sense but that was simply a technocrats interpretation of the modelling results and the outcome was one you know

Q: Yeah also because now from the outside there are networks that say -Oh but this is not ambitious enough to comply with the Paris agreement.

A. I mean the Paris agreement is a Paris agreement they...because of 40% climate had already been decided, the modelling and the preparation for the packing in November 2016 wasn't asking any climate question at all. in order to have in the modelling that we had to do in order to have more energy efficiency we had to have more coal in order to keep the GHG impact constant to 40% which is crazy. So what we were asking was, if you want to have 40% GHG savings what are the pros and cons of doing more efficiency unless some other things which is very odd so the modelling for the package for the targets for efficiency and renewables have nothing to do with Paris, which is odd. I mean because of the political debate of course and now we're saying as technically if you do 32% renewables 32.5% efficiency you come to 45% GHG savings. That's a plus but we were modelling things before. I mean you do what you do.

Q. And even now with the new IPCC report with 1.5.

A. Now we have for both efficiency and renewables a review clause in 2023 that says, depending on what carbon goals are maybe to review the 32 and 32.5% objective so the reason a link on that direction but that wasn't the case in the setting of those targets.

Q: Yeah also because they came before.

A. Well they came after Paris.

Q. You said 2016?

A. The proposal was November 2016 so a year after Paris, yeah but the shape of the proposals therefore in I mean had was supposed to hold carbon impacts constant.

Q. Well it doesn't take into account the changes.

A. What changes?

Q. Well the price

A. Yes, ok now you have a discussion about the price about the ETS, it was supposed to hold carbon savings constant at 40 for 2030. The price is not a goal, it's inevitable, it's more true for renewables but it's true for both, if your policies cause GHG emissions reduction then the ETS has to do less work and therefore the price would be lower and that again we model that we describe that in our impact assessment, yeah it's a that's a very odd sort of discussion I think because the real thing which we didn't decide is that if you do more efficiency it would lead to less GHG emissions rather than to lead to the same amount of GHG emissions and therefore a lower price.

Q. There is something about how the very concept of energy efficiency is conceptualized in the sense of, it is presented as the cure to all evil, energy efficiency technology development we are emitting less GHG we are complying with the Paris agreement goal you're achieving the targets and so on. But meanwhile there's also in that debate in academia when we think about rebound effect the concept of sufficiency, in the way you work with energy efficiency concept. Do you think something is lacking? In the way the whole thing is put the whole machine.

A. Something is right then, our policy is called energy efficiency, our goal is at absolute low level of energy consumption, so if efficiency means how much how improved the quality of output you get for a given input of energy, then our policy is not enough, it's energy saving policy.

Q. And this is how DG Ener works.

A. No that's what our target is defined as, you know our target is no more than 1483 million tonnes of oil equivalent in 2020 a number that I still have to learn for 2030 you know but it's defined in absolute terms so eh number 1. Number 2 our goal however of course there's a rebound effect because we save people money and you know our policy makes economic sense they have the reasons that the economic benefit is the rebound effect the benefit of our policy is split between energy saving and economic growth you know if you had no rebound effect you can have more energy savings but no more economic growth. Put it another way because we ban vacuum cleaner which would be crazy to buy, people who buy vacuum cleaners save more money in their pocket because they would pay more to buy a vacuum cleaner but they spend less on electricity, they do something without money and that's the rebound effect. In the case of the vacuum cleaner they vacuum more, in the case of the cars they might drive more, in the case of heat they might heat more. But it doesn't matter whether they heat more or whether they spend the money they saved on vacuum cleaner on flying to Ibiza, you still doing something which has an energy component number 1. However, the energy component is unlikely to be 100%. The money that you save comes from using less

energy then you spend that money on something, it's very unlikely that the thing you spent it on is 100% energy, do you see what I mean? And so, the rebound effect is not going to be 100%. So if I spend flying to Ibiza part of the cost is indeed the jet fuel for the plane but part of the cost is staff of airplane, part of the cost is buying the airplane, part of the cost is landing fees at the airport, these are not an energy thing, you see what I mean, I've saved 100 units of energy but maybe 50 on the plane but maybe 50 are spent on things which are not, so the rebound effect is there but it doesn't mean the policy doesn't work, the other thing sufficiency which is complicated I think we're moving towards a discourse of behavioural change.

Q. Oh yes let's move in this direction, let's bring it into the conversation.

A. I think that the IPCC report is aiming for 1.5. Then it's hard to see how you could get there, well on the agricultural side it's easy we need to eat less meat and dairy, which means we need to do something different, which means that maybe for 2 you could think of purely technological solution but for 1.5 you can't get there without behavioural change which means that behavioural change will be on the agenda and seems to be more on the agenda than it was a year ago. How does that relate to sufficiency is not under discussion but at least it is yeah I think.

Q. Is there anyone doing behavioural change in this DG? Or at the Commission level?

A. I mean doing behavioural change we don't send out advertising campaigns saying instead of turning on the electric heat put on a jumper, we don't do that. One of the things we do is give consumers information about the energy that they consume and one of the reasons for doing that is because we know that they will choose to consume less if they, well first of all if they have information secondly if their bill reflects the energy they actually consume, so you get away from the situation where it's hot over the winter in the winter to a situation where you actually have turned on the heating. That's behavioural change, so we are interested in, there's lot of digital stuff I mean we're interested in giving people tool which will lead to them changing their behaviour yeah.

Q. Do you think this is an important part because the average citizen is not like energy educated, about where energy comes from, scarcity, supply, so these are all things that maybe.

A. Maybe I mean I think that the average citizen doesn't listen to the European commission and among the other things the average citizen does look at the energy rating of fridges when they buy them and that we do that and 85% of people recognize that is what causes behavioural change.

Q. The bills.

A. We allow that consumer to choose the most efficient product in a reliable way. Some of them will choose it for financial reasons some will choose it for ethical reasons but it doesn't matter we it's not possible to make that choice without the label and when we were about to change the whole system of labels and then we would do an advertising campaign to make people understand and work with member states to do that because this is kind of our thing, it's one of the internal market things. I'm less convinced that, I don't know energy education in schools might be is our issue I think we bring.

Q. I mean the long-term perspective, I mean the new generations.

A. No but we're not responsible for schools, we're not responsible for schools' curricula you know it's not, it's very easy to add something into the schools curricula you need to take something out that's the decision.

I think we'd do well to do what we do. That's what I think.

Q. I also understand the constraints within the Commission, or you in DG energy.

A. But the constraints are real world constraints, they're not political constraints, but it's not anybody I mean possibly I wouldn't be able to persuade people to launch a campaign that says wrap up warm this winter, but I don't try to lodge a campaign that says wrap up warm this winter because that doesn't make best use of what is distinctive about the commission, which is law and money and 90% law and 10% money and a law that says wrap up warm is the wrong thing you know yeah the future trust yes.

Q. Are you I mean you in the directorate like the dg involved with the circular economy? Ok can you tell me in what way, because I think sometimes it's not very mainstream it's still on the sideline and someone brings that up in all green and fancy term and also I learnt that it can have like a different meaning according to who uses that so whether you focus more on the philosophy of ecodesign whether you focus more at the end so more waste. So sometimes you realise that the way it is interpreted is not very clear or very circular so can you tell me in what way you're involved with the circular economy and from which perspective and if...

A. It's another example of the locomotive and the carriages so the locomotive is the product policy and we have extremely good product policy for energy efficiency and that's a labels on the fridges and the banning inefficient fridges and we have that for many products, and it's easy for us to add other carriages to that train. So for a long time with washing machine and dish washers we've added water use for example, we are now studying how we might have a reparability label on a score, the score on the label so your label in the shop wouldn't just tell you how much energy you use it but also if it breaks down how easy is to get repairs that's like another carriage on the train we are we've been looking into its (Incomprehensible

Ed.) too but that's another question that's not your question , how to add durability requirements, recyclability requirements as minimum requirements for products.

Q. But it should be about everything like this table...

A. No no, it's not about everything because our train is called energy related products. But when it's an energy related products with means energy use product in practice well for various technical reasons , then we can do recyclability then we can do reparability we can do other things our train is a legal train it's a regulation which has a particular content. It's never going to be dg energy which proposes another train another ecodesign directive for tables. I wouldn't have any problem with that happening but it's just it would be bizarre for DG energy to do it but we happened to do it for energy using products and that has been very nice to bring circular economy aspects as well. And we prioritise energy sorry circular economy aspects which have direct benefits for consumers and which can be measured on the product because of our train is like that I mean you know where we set energy requirement on fridge then there is a whole lot of things that can be checked by buying the fridge. So, you can check also whether the fridge has HFC in it was HFC? Anyway you know what I mean, or if it has met the reparability criteria by looking at the fridge you can't check how much energy it was used in manufacturing it , or you can't see what I mean , our train it's pretty good but we can't do everything but we like doing the things we can do , we resisted at first but then so that would work as well.

Q. You resisted?

A. We resisted, these carriages to our train but now we are convinced that is right thing to do and we are happy to do it.

Q. Can I ask you one thing? Were you at [...]?

Q. Have you been invited to that conference?

A. Yes, I know [...] from the role in the legislation we did and he invited me to come and speak, I was invited.

Q. [...] You know he was there, from other DGs. You were obviously speaking from your own perspective, the Commission which is the official line. So, what is the purpose of these events?

A. I don't know, I mean probably I went rather than somebody else on my team because I find it intellectually interesting but if you set that aside whether has to go a speaker or something we normally say yes , you know at least our presumption is that yes and if a MEP then our presumption is to say yes immediately because that's part of our role.

Q and do you think that some the issues raised have in a ways some grains of truth, or is it just totally a new topic, like the fact of changing paradigm because.

A. I mean (silence, Ed.) it's ...

Q. You can refuse to answer

A. I don't particularly know much about the [...] movement I think that (10 seconds silence, Ed.) ehm I am very concerned about climate change and ehm I am willing to ehm I mean my I have views as a private person but I think that as a private person I'm also very concerned about climate change and I'm interested in how we're going to get to avoid catastrophic global warming by 2050 and (10 seconds of ehm, Ed) and the work the Commission is doing the long-term strategy is interesting in that way. I don't think the modelling that we're doing will be the end of the story because at least you start having some stories about you can get to 1.5 degrees, stories in the sense of pieces of modelling which add up on some basis which describes worlds you know and they have an x amount of electric cars, an x amount of CCS and these are worlds that would get to 1.5 degrees. We got better and better at modelling these things that doesn't mean these are the only worlds that would get at 1.5 degrees. Although one way of thinking is you really need to do to get to 2 degrees you got some choices to get 1.5 degrees you got other choices, you got to do everything you can do. It's a possibility. I'm not going to hold back from doing things which have happened to contribute to economic growth, I mean this is in a way linked to the rebound effect story. I mean in my example is not ok to, I mean we won't be able to having people flying to Ibiza using jet fuel in 2050, if we want to get to 1.5 degree. You have to have a solution to that. But whether the solution is achieved by the state confiscating the financial gain from your switch to an efficient form of heating I doubt I think so it's better to think of you being able to do other things with that money. I think flying is in fact very I mean flying has transformed the world. Cars are different what cars offer can be done better and differently but flying is hard to see how, it's going to be a very difficult offer to create a world which has no flying in it I think.

Q: I'm very concerned about the flying thing to be honest.

A. Me too, sure but I think the (7 secs of silence) yeah it's very yeah it's very ... I don't think that trying to it's winning strategy we have no choice but face up to our diets in thinking about, if we are to going to 1.5 degrees, I think we have no choice but to think about our diets...but I think that.

Q. But I wouldn't it to become the escape goat, like it's the diet the problem.

A. Yeah one of it.

Q. It's also one of it I agree.

A. No.

Q. In terms of intensive agriculture, intensive farming.

A. It's not the intensive, it's the sheep and the cows, I think it's just the nature of those beasts.

Q. Yeah but I mean it's the intensive way of farming because they are cows and they are in the grass.

A. They still emit methane.

Q. Yes, we are departing from now.

A. I mean it's just that the [...] is not something I really interacted with.

Q. Sorry. We're almost done, only one thing because you mentioned flying transports, you don't work with DG Move?

A. No, we do, I mean I think we have the things that we do I mean if you say that energy consumption happens in four places which is transport and industry buildings and energy generation then transport is one of the ??? on list ehm but there is we will work with it more I the next years we've always had to do but we will have to more to do with it , also clima we're also quite active in transport.

Q. I will meet a couple of people in Clima next week so I might be able to ask them , yeah you know because I'm very surprised because energy transport but transport needs energy so it's just the fact of having the same line of thought and direction.

Q. I think that we will we'll see, I think it will be more common, yeah.

Q. And the 2050 strategy is not, it's like a vision more right?

A. Wait and see.

Q. I will wait and see of course I'm not going to ask.

A. You can ask what you like but I'm not going to answer.

Q. Of course, so do you think there's a deliberate attempt to build a type of narrative and what is this narrative about mitigation?

A. No idea I mean we think of a narrative that...

Q. Is that any different from the previous narratives in the mitigation since the UNFCCC I mean?

A. We deliver a lot of reductions in GHG emissions but the reason we do the things we do is not only of the need to do that and we talk about clean energy transition and that's a key Energieviende idea in Germany but it has become more recently the way we think about what we're doing so that's a narrative and no doubt it's a subset of climate narrative as well but it's yeah.

Q. Ok, thank you.

Interviewee 9 (16/11/2018)

Q. I would like you to introduce yourself and say what you do here in this unit what your role consists of so if you want to give a practical example of your typical day , your daily tasks, so please...

A. I'm [...], I've been in this unit for [...] years and I'm essentially in charge of the long-term decarbonisation research. We're in DG research so we look at research and innovation. There's a directorate for climate action in which we are, there's a unit for climate action observation and in that unit, I try to take care of the long-term decarbonization stuff. What is it in practice? It's for instance we have been looking lately at the long-term emissions reductions communication which is going to come out on 28th of November. We did for that document we took care of one of the building blocks of the document the one on research technology and investment the whole exercise led by CLIMA and ENER. Another thing we do is look after a high-level panel for our commissioner to advise him on what are research and innovation needs long-term to take us to decarbonization so that's what I do now. My previous experience I've initially been working at university , my PhD for a few years and then in industry for a few years and then 20 years in the Commission and in these 20 years in the commission between [...] and [...], I was the [...]of president Barroso, so he has a small team, his cabinet, his another small team which used to be bureau of European policy advisers (BEPA) looking at longer terms things it was a group of around 12 advisers [...] broader view of how the commission works and what we do, and how we think long-term energy and climate.

Q. Does it exist today?

A. It still exists in a sense that it's still present advisers and they also change the structure they changed all of the staff there is EPSC.

Q. The European political strategy centre, that's what I was about to ask, is it so they're advisers straight to the president, but they're more like a think tank not a DG.

A. Indeed, we're a DG this is just a matter of organisation [...].

Q. Ok yes ok because I struggle to understand sometimes the role of DGs , all the hierarchy different ways of categorizing how they're split sometimes they're overlapping like you're climate action so you know this European political strategy centre that goes right to the president and the cabin of the president so sometimes I have yeah because I'm mapping the policy landscape, I'm really mapping ...

A. Services DGs tend to be sectorial, the negative dimension of this is that we tend to work in silos which is why in this Commission in the Juncker commission president Juncker invested if I can say so on a number of vice presidents which do not have their own DG but coordinate the work of several commissioners to try to sort out this problem that have been

working in silos. For instance, there is this vice president let's take one don't know Katainen for instance looking after competitiveness and there of course DG comp but there's also looking at other DGs where there's a competitive dimension, so that creates more coordination. The EPSC is directly attached to the president so it.

Q. Do you have any relationship with them?

A. No, expect that I know them because I used to work there but this is a personal relationship, otherwise no. The EPSC and the president's cabinet are attached directly to him now the difference is that the cabinet is more his everyday life.

Q. Does it create an issue in terms of policy making directions?

A. I don't think it does no no no, it's a bit of a complex organisation but we don't see any major issue.

Q. And also, I think like your DG for having this status of research and innovation among all the others DG probably yours is the most horizontal.

A. Yes, in the sense that we do R&I in energy and climate and health. Yes, well DG Research and Innovation is trying to explain with some success that we are a policy DG and you can have several meanings to this. One is that we're a policy DG because research and innovation is a policy. It is something for which you have to make decisions, you have to allocate budgets you have to know where you send the money in terms of priority should be more in transport from a research and innovation point of view and what are the instruments tax credits, you use vat to fund it all of those things, it's policy in itself that's one way to understand it. The other way to understand it it's we do R&I in all sectors take energy. Of course, because we do R&I in energy, we must have a view of the energy policy we must have a say in the energy policy so that's another way to look at it. Either you think that research and innovation is a policy so of course we're a policy DG or you look at all those sectors and all those sectors are sectorial policies with their own DG attached to it but we also being involved.

Q. And so for example does the policy making long process in terms of ...let's focus on climate action mitigation or GHG emission reductions, decarbonization, the first input, where does it come from? Like DG Clima asking Research and Innovation?

A. I wouldn't say first input, I would say how is the input structured and organised in the sense that...let's start by the IPCC as an example. The IPCC, so we DG research and innovation is leading that's the term we often use in that sense that if there's an IPCC meeting to decide on the details of an IPCC report like the IPCC special report on 1.5 which came a few weeks ago are the last meeting to decide on this was in Korea and my boss and one colleague went because they are we are in charge leading obviously we're leading we have

to consult, coordinate, the views of all the other DGs are involved and DG Clima is one of them. Why are we leading because it's IPCC so it's more scientific oriented matter so we're in charge. If you take the UNFCCC so the negotiations which like the cop 24 which is few weeks from here. In this case in the Commission is really DG Clima, because it's primarily purely the negotiations so it is logical that it is there, but there also leading and coordinating. Some of the chapters in the negotiations, they actually do themselves, they ask us for comments advice and there's a specific chapter in the negotiations which is called RSO, Research Systematic Observations. It's a chapter of the negotiations like technology transfer, like mitigation, like monitoring reporting and verification. And on the chapter on research and systematic observations we are in charge. So, there's a negotiating team which is headed by DG Clima in which there is one person from RTD taking care of the chapter research systematic observations.

Q. So people I see sitting with the European union.

A. Most of them will be from DG Clima but not all, there's always one person from RTD for the science research issues, it used to be me until a few months ago, then I had a colleague taking over. There is probably someone from DG Environment, DG Agri on the soil use, LULUCF and all of those aspects and the team is led by a chief negotiator.

Q. And these are the delegates, the negotiating delegates, the commission position.

A. Yes.

Q. But then I think you organise, not you but G research and innovation I think but also side events.

A. The side events are side events and words mean what they mean. They're events on the side of the negotiations taking place in the same days in the same place or about involving most people from the outside.

Q. Exactly what is the meaning of side events in your opinion? Or in the opinion of research and innovation.

A. It's that they are events to publicise what we do, publicise what some other people do, they are communication activities on the side of the negotiations, communication activities. Ok they don't necessarily reflect the negotiations, they're not connected to the negotiations on substance, and you might have organisations organising side events that are lot more progressive than what we think they should be. And on the contrary it is true, you can have side events by organisations that defend very (Incomprehensible Ed.) millennium position on climate change. If there's something that you as organization as individual whatever want to communicate COPs are a good place to be but those are really side events, they are events on the side and they're not part of any negotiations process. I take care 2 side events at COP

in the second week. One will be on the high- level panel report, so the panel, which is advising our commissioner, so we will publicise this I can even give you a leaflet. And I'm also organising one on climate science education, education and dissemination together with the UNFCCC secretariat. But you know you could do one for climate issue on the steel industry and tell the people in front of you that you believe that you are from the steel industry not a problem that you don't want any change in which you produce steel because this would be too costly whatever views these are communication activities no more.

Q. Which brings to the part of the stakeholder do you ...for example I have been attending some stakeholder events organised by DG Clima, the EU for Talanoa, long-term vision in June and July yes all of them, I've always wondered what I mean the Commission doesn't act in a vacuum. So outside of it there are these stakeholders everyone its normal from ENGOs business etc so, you as a research and innovation DG do you consult stakeholders.

A: Yes of course there's a world outside as you say we cannot operate in isolation with the rest of the world. Now how do we do that? In several different ways some of the stakehdolers consultation is rather structured in the sense that there are groups platforms whatever they are called which are organisation of the stakeholder and we consult them in a rather formal way that's one way, and at the other extreme there can be things that you know more of a lobby nature, where some of these organization would come and meet us our commissioner try to influence, that's unavoidable, it has its values. I mean I'm not going to say we need to be educated but we need to be aware of the thinking outside is structured whether it is it goes our way or whether it goes in a different way, line of thinking it's always good to know how that thinking is organised and structured what are humans and what is the line that they follow to be better informed.

Q. So, you're not necessarily compromising.

A. I don't think so, we should not, it's a question of information more than a question of compromising.

Q. Yeah even in the positive meaning of the word, it's not meeting half-way.

A. There's no reason to compromise when the objective or the common good of the European people is obvious.

Q. Especially the urgency of the task. With regard to climate action. And with regard to research and innovation itself I assume you refer to research and institutes outside.

A. We fund research projects, we fund research institutes industries, and the actual running of the projects and the selection process of the projects is done by agencies which are bodies.

Q. But like agencies...

A. The Commission agencies like EASME.

Q. Can I ask you what type of research is funded because it obviously underpins the type of knowledge we consider as reliable science reliable knowledge obviously.

A. An example of the type of research which is funded for example is the research activities that have been used for special report 1.5 IPCC. When the IPCC was requested by the UNFCCC to come up with that special report everybody realised that there were not too many studies on those aspects so we quickly reacted and set out a call for proposal to come up with ideas of what research could be done in order to have a better idea of what is 1.5, what it means, what's the difference between 1.5 and 2, what are the implications, what are the costs. We funded this research, we did quickly enough so that the first result could actually be fed into the special report that's an example. Otherwise we have activities in mitigation, adaptation, in climate services, in observation.

Q. So also, the part of modelling, economic modelling

A. The economic modelling as well.

Q. Is there anything "innovative", let me explain that in terms of disciplines that have never been used before in shaping knowledge and approach to knowledge that the EU tried to bring in the journey.

A. Probably, there's an evolution in the type of research and innovation that we fund.

Q. Besides economics.

A. I don't know if this is exactly what you mean but we try to find research which is of a more cross sectoral nature than before, research looking at not new specific technical device but at socio economic aspects behavioural aspects, and things that are required for a system change and that does reflect even the policy itself because when we wanted to go from 5% renewables to 20% renewables was still the same system with a few solar panel and wind mills, you plug your kettle in the same old plug. Now we know that we run for a completely systemic change, a new society a new system a new behaviour, new social relations because of climate change mitigation , we have to look all of those aspects when we fund and do research and not just take down the costs of the latest windmill generation.

Q. And do you think this is an issue for the others DGs working?

A. I don't see why, no, it does not create problems of any nature.

Q. Yes that was my personal, because sometimes there's the risk that they're too sectorial so they're all focused in their own tasks, their own equation, focusing as you said on a systemic change how should it always be taken into account

A. When we fund things like that, maybe one difficulty is that it's difficult in our organisation in DG research which is also sectorial the units and the directorate to know where it fits and then with the relation to other DGs it can also be the same sort of problems that we need to

know if we have to consult DG Clima DG Energy or DG grow, if the research covers many of those aspects its organisational problems but in essence it's a nice evolution of things.

Q. And about this report coming on 28th obviously.

A. The long-term strategy.

Q. Yes the long-term strategy also I know it's still confidential in a few weeks we 'll see. Is it more like a road map? How does it have to be interpreted?

A. Do you know the 2011 roadmap? Well initially it was going to be a new version of the old roadmap, actually it is more than that it is different in the sense that the document which is going to come out in 2 weeks from now had as an objective to initiate discussion with all the stakeholder so member states, the EU parliament and all the industrial and societal stakeholder that you can think of to initiate the debate not to come up with a proposal for what our objective should be 2050. There's not going to be a number. We will not say we want to go to minus 95% or anything like that so it's to open a discussion and so it means to open the discussion it will have several scenarios 7 or 8 which will all differ in ambition. If you go back to the 2011 it also had a I think 5 scenarios, one was non-nuclear, one was delayed CCS one was high renewables I'm going to miss one or two but it had 5 or 6, but they all had a different ambition to take to -85% at least. And the document was showing that to go to -85% at least was feasible in many different ways and in the end it got vetoed by Poland in the Council and it was the end of it. Now the document that is going to come out in 2 weeks has 7 or 8 scenarios and it has different ambitions one extreme is almost business as usual, and the other next 3 is Paris compatible and takes into account all the different developments on the special report.

Q. Compatible with well below or 1.5?

A. There's a whole range of scenarios in terms of ambition, that's to promote dialogue to promote feedback from our stakeholder. And the idea is that then a bit more than a year from now so in the early 2020 this would result in the real plans for 2050 with numbers. Where do we want to go collectively as a result of all of these discussion and that objective the miracle objective but more than a year from now will be our submission to the UNFCCC, a submission of the new version of the updated version of nationally determined contribution. So it's a process and the document we release is only step 1 in the process, to promote discussion show what is feasible, tell the member states now you choose well, it's not going to be like that, you know discussion is going to start.

Q. Which brings us to instruments to ensure compliance. One of the things I've been told in DG energy for example it was the difference between the 2020 targets and 2030 because the 2030 are based more on the concept of governance, while 2020 was legally binding. Can

the 2050 be legally binding or start a process for or will it be underpinned by the same concept of governance that underpinned 2030?

A. We haven't found it yet, but we will find out in the discussion. My feeling is that it's going to be much like 2030 so based on governance agreements name and shame all of those matters rather than legally binding I think but maybe not we'll see we will see in a few years from now.

Q. What about the role with the parliament? Do you deal with the parliament as dg research and innovation or as the European commission?

A. As the European commission, from institution to institution, there's no way that a specific DG is going to talk to the parliament as a specific DG.

Q. Ok not even in the amendment process, I'm not saying the trialogue of course.

A. It's always from institution to institution that those things take place. And the role of the parliament is the role of the parliament like in any ...amendments.

Q. Yeah, all the political groups, they refer to the member states.

A. Amendments leading to the trialogue quite classical stuff.

Q. Can I ask a couple of more questions? ok let's start with a procedural one and a content one. The role and the relationship with the JRC. Can you clarify? Because you are DG research and innovation, the JRC is a DG.

A. It could take several hours but we don't have the time. Briefly, we 're dg RTD, we're policy DG, we organise research and innovation funding and policy. The Jrc primarily does research the JRC runs research centres in several places around Europe they do research, we don't do research.

Q. But you don't fund them?

A. We do fund them, because if they do research they need funding ,like universities industries and so they can submit proposals like universities and industries in some of the projects that we fund. Now to go more into the details of that relation, there another DG that can be funded from us, that becomes tricky and of course with the research that they do that can be funded by us, hopefully they have other sources of funding they can also feed into the policy making process. Like us.

Q. But they're not a dg policy.

A. They're not, I don't think they pretend to be a policy DG, they're a policy relevant DG but they're not a policy DG. so briefly in 10 seconds, we fund research, they do research.

Q. That is clear, can I ask you , among all of those coordination, long-term strategy, how we think about that, I'm trying to follow across the DGs and across events and, I was at the raw material week, a concept that I'm trying to clarify what it means for the European

Commission and what is its philosophy outside of it it's the circular economy. do you deal with that?

A. There's a unit in the directorate dealing with circular economy, I'm not directly involved.

Q. Ah you're not directly involved but do you fund research.

A. Yes, we do fund research aimed at developing circular economy concepts.

Q: Is there an attempt to mainstream circular economy because I find ...

A. I think there is. It is one thing which will be present maybe not prominently or prominently enough but will be present in the long-term strategy in 2 weeks.

Q. So, it's not about making the whole economy circular.

A. No, but more circularity we think is good for climate for the resources for pollution for many aspects, sustainability in the wider sense.

Q. But in terms of production and consumption patterns...

A. It's a policy that is dealt by DG Environment, but we do support research going in the same direction but it's in another unit in this directorate.

Q. And so I read on my way to here I was reading about bioeconomy. Too many fancy terms and a lot of confusion about what they actually mean. So, do you deal with bioeconomy?

A. No we don't. I mean I do not directly, it's in another directorate, there is a specific directorate on bioeconomy in research and innovation, it's in another directorate there's a specific directorate on bioeconomy.

Q Ok, it makes sense I will try to clarify that as well, I'm looking if there are things, you don't deal with issues of transportation.

A. Transport again there's a whole DG from the policy point of view for transport DG move and in RTD we also have a specific directorate on transport research and innovation. And DG move have there all specific activities transport research as well so transport research projects are like split between the directorate on transport research in RTD and some activity or transport research in Move and this changes as a function of time and negotiated between the 2 DGs and so on.

Q. Ok yeah but do you communicate regular in your unit within DG move.

A. Yes because if we're in charge of the long-term decarbonisation for instance, we have this high level panel which is advising our commissioner, this high level panel has produced a report which is now in the printshop so it's going to come out simultaneously in terms of strategy in 2 weeks. The report looks at all the sectors it looks at transport, it looks at bioeconomy so we must have been talking to those people who do real research in those sectors. I've been 20 years in the Commission, one of the evolution is that the work has become more and more horizontal, diagonal, coordinated, whatever word you want to use,

but less and less in separated silos. When I joined 20 years ago my first field of responsibility was called clean coal technologies for power generation. And this was it. I was not talking to transport, bioeconomy, or any other specific field so things have changed a lot.

Q. For the better?

A. For the better. Not for the simpler as it has made everything more complex but for the better.

Q. So you don't think that in the change of a type of governance for example from Kyoto to Paris, like fixed targets, you need to comply with that percentage, to a more soft governance you know at the international level.

A. No well it's a positive evolution, if you say Kyoto and if you go to Copenhagen in 2009 which was one approach it's been replaced by the Paris agreement which is the opposite approach. So, it's a bottom up rather than a top down.

Q. More voluntary.

A: More voluntary, it requires more coordination monitoring verification become more important issue, but it seems to work better.

Q. Ok so do you think the European union as one of the big polluters do not just like hold back, the EU will carry on pursuing.

A. We will carry on trying to pursue our leadership role in the mitigation of GHG emissions yes even though we hold only 10% on global emissions.

Q. Yes well in understand it's not you alone who have to deliver the 1.5 objective.

A. Not leadership for the pleasure of leadership, it's because it's in our interest we have to develop these technologies, those industrial sectors, those new way of living in order to help our competitiveness, growth and jobs, it's not only climate from our thermometer point of view , it's in our own interest being in a leadership position.

Q. Are you familiar with the literature of those who tried to demystify this myth of growth

A: In what sense? To promote degrowth.

Q. This way yeah or other ways of defining it...

A. Again, in BEPA years ago [...] for a while with a colleague of the new measurement of growth, and we ran a group of experts which was called beyond GDP.

Q. So that was a thing that was actually been happening

A. Not quite they produced a report I have a bitter feeling that [...] at the end of the day we're still governed in practice by money, so to look beyond GDP one problem is that it has several definitions. You can look at different things, you can try and have another monitoring measurement or growth which would include GDP but also include externalities of some of your activities like the cost of carbon to take a famous example and then you have a

monitoring measurement of activity which is more than just growth domestic product that's one thing. But you can extend it to many other things, way beyond GDP which do not have a monitoring measurement like wellbeing like are you happy, I hope you are but you're not going to tell me an answer in euro or in dollars, how do you measure this how do you scale it, how do you compare it? How do you integrate it into one number or several numbers to measure growth, you could have GDP you could have wellbeing you can have education, happiness, there are so many ideas, some of which are purely in terms of monitoring units some others are not that to agree on one is the level of difficulty how do we compromise, how do we do the trade-off between for instance GDP and happiness to take just 2, how do we choose, there's going to be a balance to find and all of those difficulties probably will result in the fact the world is still governed by GDP, money, with all the distributional difficulties of it.

Q. And the environmental, because I'm still sceptical about technology that will save us.

A. And the environmental, which are not integrated in the GDP, so externalities which are not internalized so we don't really take them into account.

Q. Which is a funny thing, why are they still considered as externalities. they're not externalities. The environment is what gives us the raw material to make the whole machine working so. So, the fact that we still conceptualise this as an externality is a mistake, but of course this is only my personal opinion..

A. I do believe that all externalities should be internalized but the problem is that all its external costs are not really costs in the sense that are counted in the GDP, in the sense that no one's paying for them at the moment because if you emit GHG because you're burning coal and the fact that you're buying coal is counted, the fact that you sell electricity when you burn it is counted but the GHG you emit, give it a value, that's the first problem what are going to be the consequences down the line in the next years how do you count for that. The more you open the doors the more pathways you can go the more difficult it becomes.

Q. Yeah, I understand we're bringing the conversation very far.

A. It's getting philosophical.

Q. Also because it's my topic is about philosophy of language that's why I always insist on externalities, how we conceptualise it etc, I'm very fascinated by that.

Q. Because you mentioned the people who produced a report, is it traceable on the internet, because I would be curious.

A. You mean the high-level panel report?

Q. No those people you mentioned now for the degrowth thing they were in charge.

A: this one goes back of a few years , I'm not sure if it's still present on the internet ok but if you google European commission and then beyond GDP thing might come up and then you will find a communication ok I may be wrong but the commission communication of I would say 2009 and I don' think there is a recent evolution.

Q: Because recently there has been a postgrowth conference at the EU parliament. Now postgrowth degrowth although I still think there are different inferences we draw according to the use we make of the word degrowth post growth but it's getting philosophical again. And it was a 2 day conference run by hosted by the Parliament because the groups within the Parliament but the different political groups giving space and it was like a 2 day conference Tim Jackson the guy of prosperity without growth, academics, scientists and the Commission was there as well because it was invited , Paul Hodson from DG Energy was speaking , so I was curious to know if these little things are...this debate is still kept alive.

A. It's an interesting topic, it might be in the future, but this is why it's almost dead.

Q. So I think that I will end here, I will be curious to see in a couple of weeks the long-term strategy, it's comprehensive right? It covers all the sectors.

A. Yes it does it has to.

Q. It has to, it's a long-term strategy but obviously it's not about implementation, it's about the scenarios.

A. It shows a number of scenarios which are based on modelling, so credible scenarios, the best that we can do , but it does not give an end point , this would be after all a discussion in a year and a half from now.

Q. So with the new Commission.

A. Yes that's the idea. It has to simply because the update of the NDCs in the national determined contribution to the UNFCCC is compulsory we have to do it by the Paris agreement, it's not a choice of the commission or the member states to do it or not. There's a date, I can't give you the date precisely but it's at the beginning of 2020 there's a date where there must be an official letter, missing going from member states and the commission to the UNFCCC, or we breach our Paris agreement pledge, we have to do it not a choice.

Q: Ok, and with the reluctance of some member states, I mean you don't deal with it personally with that or yes because actually the Commission monitors.

A. Sometimes we have to prepare to some of the member states reactions, member states meetings it's an aspect of the work as well, but it's not specific, it's not the main topics we deal with.

Q. So. thank you so much.

A. You 're welcome.

Interviewee 10 (21/11/2018)

Q. Would you like first to introduce yourself , your role here in this directorate and specify what you do , and describe your typical day and I think that I ‘ve seen you before at the all the various stakeholder events long-term vision, so please.

A. Yes, I’m [...] and I’m dealing with for the past two and a half years all sectors outside the ETS, so that refers to whole the legislation that has been prepared as part of the 2030 package like for instance effort sharing, land use, governance, CO2 and cars, CO2 and transports, on top of that I also deal with climate strategies that is both domestic and international that is preparing strategic documents and assessments on that. I think that’s the main coverage and that’s of course I look at monitoring reporting verification, so I’m looking at the issues of compliance in the European legislation and the last point is innovation with respect to financial instruments for innovation fund modernization fund that’s part of my responsibility.

Q. Ok so that’s interesting, so effort-sharing so everything that goes outside the ET, for example, with regard to you basically act as a coordinator as a director right?

A. Well I have [...] units so I deal with different things, and I ‘m providing the guidance for that.

Q. Ok that’s also very procedural without the content understand how do you take a horizontal approach? In the sense that you have the task to work with other DGs.

A. Yeah of course we have to work with every DG, so everything that is done in the Commission is subject to interservice consultation so you will always have to bring other DG. For instance, drafting strategies which we do in close cooperation with DG energy and DG move DG grow DG env DG Agri they’re the primary clients.

Q. Yeah because eventually you have the final position which is the commission’s position, ok that’s kind of the impression that the commission works in silos.

A. No, every letter we write is a letter from the Commission. It’s not a letter from DG Clima actually.

Q. So with regard to for example the effort sharing, because of the proposals, like the decision-making process from the very beginning of the setting up of proposals is at your level that the proposal are set, like how does the hierarchy work?

A. Like of course it’s the desk officer or policy officers who work provide the inputs with the guidance that comes from the top of hierarchy as in every other administration that that proposal will have to go through hierarchy back to the top, which means the college so that is the collectively of all the Commissioners. And then they will make a political decision so

then it becomes a Commission proposal that has been put into the legislative process which is core legislation in our case Parliament and Council are consulted and we have to do the negotiations...

Q. Negotiations outside you mean with

A. With Council and Parliament.

Q. Ah ok the trialogue.

A. Yeah that's the trialogue.

Q. Ok first negotiations and then the trialogue at the end.

A. First they need to establish their own position and then as well we explain what's in the proposal and kind of we take views on proposals that come from them whether we think they fit into the proposal or not or whether they sometimes they're not even implementable so that is an early process they form their co-opinion that it goes into co-decision so that means that means that both parties meet the Council and Parliament and be sat as the third party to broke a compromise between the two houses.

Q. And when it comes to like giving the first input or initiatives do you consult stakeholder first.

A. No there's a whole formal process so before you start even drafting a proposal you do a stakeholder consultation on a particular strategy, on a particular topic. For the long-term strategy find still on the web with loads of questions that go into the preparatory documents. And then often after you made a proposal there's also a possibility for stakeholder to come back to look at the proposal and give the opinion of exposed stakeholder consultation that has been happening before and then the discussion starts in council and parliament and then and during the process you will hear many voices of stakeholder.

Q: Exactly so what is the purpose of all the stakeholder events DG Clima runs every now and then, so just to give you an example.

A. What's the purpose?

Q. Yes, in your opinion, no its not judgmental my questions are really for understanding

A. This is the basics of the democratic process, why do you think we do that? Do think we do that because we have fun?

Q. No it was because purpose was not the right question I could have worded better what's the meaning in your opinion for DG Clima or for the Commission it's like to give an arena of debate or is it to inform the policy making process it's really a pure informative question.

A. You can look into the guidance that is there I think that what is meant with it you want to know what the stakeholder think about a particular issue and whether they think you need to tackle that with a policy and if we already have some ideas in which direction it should go,

what they think about the direction. And you allow them to write their own policy papers where they present their views in terms of what they think particular policy issue should be tackled. And that of course goes into the impact assessment. Many of the options you will see in the impact assessment are inspired by things we have ideas we have received by different stakeholders but the impact assessment will look at pros and cons of what are the economic implications.

Q. Ok maybe, it's a dull question but what are in your opinion the challenges when you consult the stakeholder because everyone wants to pull towards their own side but then there's a compliance with the wider framework, so there is the urgency of the climate action at the same time. So, do you think do you see there are like many challenges or to you it's a...

A. Every policy and policy development is a challenge and in terms of urgency you can say that things are urgent but can you then shortcut the democratic process, no? You can't. If you don't have to abide by it then your policy is worthless at the end of the day. These policies are vetted by democratically elected institutions and they are the ones who decide it's not the policy officer in a small room or a director like me or the director general, I think that's a fundamental of the process.

Q. And basically now you're dealing with all the legislation of the 2030 but now in a week there's a report that is coming the long-term strategy.

A. It's a communication. it's a very preliminary work or how would you define it.

Q. Is it very general?

A. You'll have to wait.

Q. Ok so sorry.

A. No it will not give one pathway. That's not the purpose of the communication. The purpose of a communication is in the whole policy making process to take stock, you have had a stakeholder consultation, you have been provided with a lot of analysis from the outside so you take stock, you analyse it and you put out on the table what you have seen what you have heard what you think it's a possible way forward but I can't be, but it's not a soviet-style Gosplan like that. But it invites for further discussion, you want to know what is the opinion of the Member states in the different formations of...climate is, kind of cross cutting all sectors you want to know what the farmers want to know, what the industry is thinking you want to know what the transport sectors is thinking all of that will be reflected. The same with the Parliament you want to know what is the take of the Parliament what is on the table at a certain stage into policy decision where does the EU as a Union wants to take a position and which direction to fight forward and all of that in the case of the long-

term strategy is that to come up with the EU strategy in the 2020 so this communication is input into this broader public debate.

Q. Ok it's just a communication gives the first input to start a like a new conversation about and it will end up like in the parliament.

A. This will be addressed to whole institutions, so a copy goes to the Parliament and then the Council presidency decides what to do with it, whether to take the communication and throw it into the dust bin and say we don't say that this is an important discussion but it can also say this is an important discussion and we believe that Council formation abcde needs to deal with this. And they might also end up having a discussion with the president of the Council to see whether it should be in the agenda of the European council at a certain point in time. These are decisions that the council in its own right will have to make and the parliament will have to say -Ok are we going to do with it? They can throw it in the dust bin and then or they can have a debate like organise a debate in the way they see it fits so they can send it to the different committees in the parliament. Or they can just say one committee they can issue a resolution if they want but they can also not issue the resolution, it's up to them on how they want to respond to what the commission wants to put on the table and then you have like the committee of the regions , the European economic and social committee where you also had a stakeholder, they might wish to issue an opinion on that. So this is how it is going be taken forward. We found the Commission might also have this broader debate into the member-states we can do in terms of our own initiative organizing a stakeholder meeting in various member states to deepen the debate.

Q. Do you think there's been a bit of a step, well you can say whatever you like obviously, a step back towards from the 2020 there was like very legislative to the concept of governance 203. I might assume the 2050 would be the same but we'll see, to get the machine working ensuring compliance and ensuring the transition that needs to be carried out?

A. If you look I'm not quite sure what you re afterwards , if you look at the 2020 package of course it was a legislative package it has a very clear responsibility for each of the member states and it consists of climate and (Someone interrupts Ed.). Where were we?

Q. I had asked the question if in your opinion there was a step back from the legislative approach of the 2020 to that of governance of the 2030 and possibly 2050 can negatively affect the outcome the direction towards implementation compliance the reaching of the goal.

A. I think that what you see if you look at the way we I call them general elections of climate policy in Europe is that of course we 're learning kind of we're expanding and the legislation becomes more sophisticated to look at 2020 package you have emission trading effort

sharing renewables energy efficiency and these are four pieces of legislation each of them had it's on governance structure and compliance and structure and you had hard targets on the etc side towards the companies effort sharing member states renewables also member states with clear targets and then the only one who was hanging a little bit was energy efficiency because you did not have individual targets from member states. The approach then was changed towards 2030 where it was said that ok we only have the ETS and effort sharing plus the LULUCF as mandatory legislation where you have hard compliance and you have renewables and you have energy efficiency where it's not you don't have targets per member states decided in brussels but you would do the bottom up, you need a new governance system. And then we were looking across the board climate and energy and say -Ok let's bring things together, also on the administrative side to try to streamline because there was evaluation done on the energy side they had 90 reporting requirements from 90 pieces of legislation a lot of that overlapping on that, some contradicting so we said let's use this opportunity to put a new governance structure in place that can help you there. And then one strength of the governance was strengthening the planning aspect because what you have seen and implemented in the 2020 strategy and also renewable energy efficiency is that, yes, people sign up to targets and then nothing happens afterwards. And then it's kind of policies being put in place it is not really planned in an integrated manner, it is only done at the looking at the national level but not looking at what your neighbours are doing. So the new governance regulation has you need to have a national plan which means that you need to talk to all the sectoral ministries in order to get to a national plan and we'll have an opportunity to have a discussion to have all the member states on the plan and you can see that what I plan on electricity does that fit what my neighbour is planning? So that in that way we want to have a much better and highly more granular planning process in place and then on top you have all the compliance provisions that are necessary for emissions trading, ESR, for the LULUCF and the issue was about gap filling for energy efficiency and energy renewables. If the bottom up approach doesn't work what do you do then? So that in a nutshell the movement from one to the other there was an attempt in the negotiations between Parliament and Council, particularly from the Parliament side to start putting new targets into the governance regulation which kind of was in our view completely premature because we have never looked at those we have never analysed, we have never had a discussion at the level of society to do that. So what we agreed is that we put into the legislation that we'll do this type of analysis because there was already an article from the long-term strategy so that was then filled up with all the details on the discussion of the net zero and therefore that's one of the reasons you will see next week the communication coming out.

Q. Ok but obviously the communication coming out is not as detailed in terms of I don't know as you said the legislation, it's just a communication of what needs to be done?

A. I think you will be surprised.

Q. Oh really wow, I'm making too many assumptions without even seeing the documents, sorry.

A. Yes, if you look at previous communications, the communication itself is like the executive summaries and that of course is underpinned with further analysis as every piece of legislation is underpinned with impact assessment there's a whole scenario analysis that has been done and that is going to be a world class analysis something that has been done anywhere else in the world.

Q. Ok nice which is like you're taking the opportunity to present at next COP right?

A. We will use the COP in order to make public what we have been writing. Yes.

Q. Ok Yes I'm going to cop the second week.

A. Yes, we have 3 days of side events when we go sector by sector to present what is in the analysis to have first discussions on stakeholder.

Q. Ok so I cannot miss it actually. So, what I've been observing at these public events obviously I'm backing it up with interviews from people who are actually working. So, you hear a lot of criticism of course like -Oh you're not ambitious enough or you never address the elephants in the room that are always coal financing big supply chain, the thing what would you tell to these people?

A. I would tell you're wrong and that's the end of it. I think you need to look at the answer you need to understand who is asking you and of course there is a role of NGOs in the society into going a step further and have to push. And I think that is a very important role and they of course will come with an argument that they want an analysis to underpin the arguments and that is what is useful in the democratic process that you have these exchange of opinions, you will have exactly have people who would say you are coming from cloud cuckoo land and what you're saying is just dreaming. The US are running away, Brazil is running away, Russia we do it on our own. It just shows the breath of view in a democratic society that is what you are confronted with. And many of the views that you'll see that come with a particular perspective in mind because if there's a company that produces a particular technology and wants to promote that of course they want to see the Commission supporting that as the most important technology is its bit. And then they will come a study trying to underpin that case so in that way I think there's diversity in the democratic society that will see.

Q. There has to be in a way.

A. And definitely they will criticize you. The worst thing would be if there's a certain part of a society that is not criticizing you because then you got something probably wrong.

Q. That's true in a way.

A. So yeah that why we get paid good salaries we are beaten up all the time.

Q. Ok it's part of the game and what, because you mentioned, US, Brazil, so not all rosy for the situation in the international governance, if these actors are withdrawing, Europe like the EU will still carry on.

A. Kind of that's the assumption but can we guarantee that? what is the public going to say about the implications of that? Of course, what is been the rhetoric might not match with what's happening in reality and the US is pointing case where you see a lot of climate action happening whether that climate action is sufficient or not. Ok we cannot judge but we will have to see over time but at least we see an engagement. The same is going to be for Brazil, there's a new leader, it seems to be very climate sceptic, we have to see what are the real implications. We shouldn't jump to conclusions but we see what is happening ready on the ground and then yeah take the necessary actions but I think that what is very clear is that climate change is a huge issue that is going to affect us. Of course, if the rest of the world doesn't want to do anything about it then the only thing is adaptation and limiting the damage.

Q. Well mitigation is an important because that the long-term vision.

A. Yes but if nobody, we're only responsible for 9 or maximum 10% of the emissions.

Q. Yeah and you can't all alone bring below 2 degrees or 1.5

A. Yeah we wouldn't be able to do that we should not fool ourselves on that.

Q. And has the publishing of the new IPCC report on 1.5 in a way affected because it came when the long-term strategy communication was pretty much done.

A. Yes but the IPCC report is a long process as we know.

Q. So do you work with the scientists involved...

A. Look who pays for all the scientific work? It's the European research programme I don't know to what extent but it's a significant extent so we have been pushing the scientists we pay to come out with a report in time so the IPCC can take them into account so we are kind of as government part of the review process of all the documents that are drafted in the IPCC. So we know a year in advance what probably is going to go into the technical document so we know that so we know that it's not that we are caught by surprise beginning of October the summery for policymakers came out and we are producing the paper at the end of November so there's enough time to look at this.

Q. Ok probably I will ask one last question because it's been on for like half an hour and it's enough. Are you involved directly or indirectly with the circular economy? Do you think it should be more mainstreamed how do you think it can be part a wider strategy?

A. I'm surprised about the question.

Q. Why? It's one of the patterns that I'm following, when I'm interviewing people I always address that because it's one of the themes that always comes up at these public events. So my current trend is that I try to focus on one issue that is trying to break some kind of paradigm in the current way of thinking and as it's part, because DG env deals with the circular economy, but is that only DG env so I'm trying to understand from others.

A. First of all, it is the same as with climate policy these are commission policies so if there's a proposal related to circular economy it's a commission proposal, it's not something when one dg has a different view from the other.

Q. Because I've also been told oh yes, the circular economy is more like in the hands of DG ENV which...

A. I don't know which official tells you that.

Q. Also I can't remember properly because we would need to go back and also I can't say obviously for privacy reasons but I was interested in following this theme across the horizontal approach and also because it's a topic that comes up at public events, it's a topic that lead us to rethink our production and consumption patterns, so it's basically about the economic model and... Last week I was at the raw material week, like it was organised by DG growth so obviously you know secondary raw material, circular economy so that's why I said...

A. The response is simple, if you want to solve the climate problem there is no way that you cannot go the circular economy way because we will have 30% more population by 2050 so where do you get all the resources if you don't recycle more and better. If we say we need to have electricity transports system you need to have a way of recycling better which is not being done at the best extent today, so the circular economy is part of the solution very clearly. And just look at the staff working documents next week. You will see a lot on circular economy. Whether we are able to kind of model the circular economy in an appropriate way I would say ok we can't take it as far as we are at the moment I think we need to improve on that, but kind of with our research budget there will be improvement of those parts of the modelling there's no doubt but we're all part of the learning process. The last question.

Q. Yeah, I think you answered because it was, if there's a specific narrative that you're trying the EU commission is trying to build.

A. In which direction?

Q. Yeah exactly in which direction

A. You mean in terms of climate change?

Q. Yes mitigation.

A. The kind of narrative which we have been using for at least for the last 25 years. That we need to mitigate because that is going to be much cheaper than adaptation, it doesn't mean that we don't have to adapt because climate change is happening so we'll also have to adapt and we need to invest the right amount of money into that. And that requires enormous effort we are changing over time as we probably have underestimated and that's what science is telling us, the speed at which climate change is happening and also the scale the magnitude of the climate change that is happening. Cause if the world that we have seen today is a one degrees world then 2 degrees would be twice as bad and these are enormous changes that we would see so I think that people are starting understanding.

Q. Or that we see, I come from Italy Mediterranean area, yeah, it's there, probably the northern countries.

A. But even there, forest fires in Sweden when did that happen, so there is no change in the narrative, I think that when people say is that the urgency is getting more urgent because a lot of time has passed since we know about climate change.

Q. Do you think that just because you mentioned that, because we have underestimated the urgency then, obviously what you do is a top down approach, obviously even for the circular economy.

A. Why do you think we do a top down approach?

Q. Well you for you are you are the commission you that's part of the institutional, so the question was about behavioural change, is there anyone promoting behavioural change at the level of the Commission or do you think it's up to the member states or up to the Commission?

A. Behavioural change is for every citizen that is what behavioural change is not somebody telling somebody you need to change your behaviour.

Q. Would it help if someone told?

A. No probably it would be the contrary, you probably would be seen as a dictator, you want to dictate what other should do, should eat how fast they should move and that is not going to work in a democratic society. So if you want to see more in change in what people do in their own lives in terms of their consumption patterns you need to educate you need to raise awareness but I think that just take, as an example, the discussion about nutrition and food think of how much advice you would get good or bad, of the 55 different ways of doing a

diet and you also have scientist who say it's all crap so you think that an area where people will have long discussions. But to think that that just can be regulated then you will have the Eurosceptics 100% in Europe I think that for sure people need to be of course know what's the implications of my action and I think you need to take responsibility for that, I think that is clear to be down that kind of awareness, but then it's up to your own choice.

Q: like freedom of choice. Yeah ok good thank you.

Interviewee 11 (22/11/2018)

Q. Would you like to introduce yourself and describe your role?

A. I'm [...] and I work in the [...] unit, so I deal with car industrial policy and the switch to electrification and battery so I work in a very specific and very narrow area.

Q. That's perfect actually because I'm trying to have wider approach, so I know more than some of formal perspective that the Commission presents at stakeholder events. So, I'm looking forward to hearing from someone who works in a particular unit of the directorate, working on specific things in a specific directorate and working into the wider framework. For me it's a really, what I'm looking for in these interviews, otherwise I just go to the public events I take note of what's been said, that's pretty much it. Can you describe your role a bit more in detail within DG Grow, your typical day just to break the ice, I mean for me.

A. So, the role of this unit is to look at all the issues related to the car industry to ensure that we have a single market of cars in Europe and to ensure that there's a fair competition. So, the sort of things that this unit is responsible for. To give you... an idea is the example of the legislation that says what a car must have, all the safety devices, the quality materials that I mean all for it to be on the market, for it to be sold, so the legislation and government is controlled. We're also responsible for things like policies, at the moment there are policies more than legislation for automated driving connected driving ehm dealing with things like diesel issues the sort of big policy issues. We also deal with trade issues so you can imagine a lot of free trade negotiations, we also have a chapter on cars with our colleagues on DG Trade lead on that but in here we provide not me but my colleagues we provide the expertise on what the car industry what sort of things we should be asking in the future on trade agreement and so on then there's another area which is where I'm more involved with and there's 2 things which are probably relevant for you one is on the electrification of cars so in particular the industrial policy of getting battery manufacturing into the there is no battery manufacturing in the EU.

Q. So, in China.

A. Yeah in China mainly but Japan, South Korea and to a certain extent United States and India.

Q. Ok because I've been to the raw material week last week and we touched upon on, it was organised by DG grow I mean I think it was DG grow initiative.

A: The raw material unit is in this directorate that's one of the aspect. The other thing is a of course we follow what other parts of the Commission do so I follow to a certain extent what DG Clima does on introducing standards for emissions CO2 emissions for cars and CO2 emissions for trucks. You might be aware than in the last 6 months we've introduced some new standards for how much cars can emit in CO2 and for the first time we might introduce standards for heavy duty vehicles HDV, so of course that's DG Clima lead but it has a huge impact on the competitiveness of the industry, so that's why we take an interest.

Q. So you're like the first input, like set these standards from here...

A. No no it's the other way around cause the standards are primarily climate driven. So you have the Paris agreement, you have what the EU would do to try to do and meet those targets and the whole range of measures but one of course will be reducing the amount of pollution that comes from transport which is one of the biggest contributors to pollution as well as GHGs and CO2. So you start from that that's all very well and good but what is the impact on what is important to industry in Europe in terms of employment innovation so ehm a subsidiary priority for this standards is to say well this is happening all over the world, china is particularly aggressive in pursuing there's clearly a demand anyway for cars to be more, to be cleaner. So one of the things by introducing standards is that you encourage industry to invest more in innovation in this area so that they can remain competitive not only in the EU and meet the EU standards but also being competitive on the world market and there's no bigger market for cars than china so it's I mean I think I might gone the years wrong but not that long ago the market in China 10-15 years ago was the same as France, something like 3 million cars a year now it's something like 23 million cars a year so it's huge huge market which is important for the future of our industry.

Q: I speak from my perspective of you know climate change mitigation efforts, so this is my main focus, so to mitigate rather than adapt, so if we establish a market, a growing market is it logically clashing with mitigation efforts?

A. Give me an example.

Q. Of what you need may if we become we locally produce more batteries we have the manufacturing here we localize give jobs but we want to establish a market so we export cars so they need to be transported, as a whole production and consumption machine of electric cars , does it affect the whole mitigation policies to..

A. That's what I'm trying to say, what is the most important thing about the policy. The policy is to reduce, to turn greener' and public health. And emissions are from cars, trains trucks are a bit contributor to that, the important thing is to get that done. Now if you say what is the way forward is the way forward having I mean you could ban cars altogether. But assumingly you don't say that, what a cleaner car is... it's electrification you could say what if it's not battery it's hydrogenated fuel cells, it's liquid natural gas. I mean there are other things and there are all pluses and minuses to all of that, I think that nearly everyone agrees the solution that's closer to the market is battery. But they're already on the market and innovation is happening all the time more efficient also and more price competitive, but it all comes to a price it's not only a question of shipping electric cars from Europe to china. But in practice for a market like China the cars would be made locally in China I can't believe I can't believe Volkswagen would make electric cars shipped to China I suspect China would be very impressed. If Volkswagen has manufacturing capacity in China then they're doing that import but put that one side but you have of course a huge a significant impact in terms of making batteries, taking cobalt from Congo for I mean these raw materials are difficult to access.

Q. A social issue also

A. A huge social issue, absolutely a big ethical issues there, how do you ensure that that this is taken ethically I mean there are big issues there, batteries themselves are a toxic dangerous substances, that Is way it is dangerous they must be transported in a sealed container that they're perfectly safe. But making batteries is a very complex and potentially dangerous process, you have to.

Q. And I assume the disposal, even normal batteries.

A. Yeah well there is good news because with car batteries , as long as they're made in a form that is easy to dismantle at the end you can recover nearly all 98%-99% of the original raw materials so you can more or less have a sort of virtuous circle of recycling . What you can have as a problem is that the seller of electric cars continue to grow dramatically now electric cars last longer than petrol diesel cars, so the batteries are not going to be recycled for another 10 -15 year. So there is this gap where you're going to have an increased demand of batteries but the raw materials are not coming back into the system you have to get them from elsewhere, from mines or if we can be much more efficient on recycling for example mobile phones apparently at the moment we only recycle something like 10% of mobile phones if we make 100% there's a company here a Belgian company big supplier of raw material that s the equivalent of 2 large mines for lithium and cobalt, sorry I'm not sure there's particularly a conflict . If you're going to build cars however green they are they're

going to be environmental issues full stop. So as always, it's a plus or minus thing. The policy of the commission the policies of member states and china and the states is that electric cars are a better solution than petrol ones, far from being perfect, there are also huge implications in terms of infrastructures to support the recharging of cars.

Q. When you speak about cars you speak also of buses? Do you deal with them?

A. Yeah to a certain extent yes, trains less so, no I'm just trying to think, no in this unit we don't deal with trains, there's a neighbouring unit that does a lot on trains but that's mainly DG move.

Q. Exactly so what's the role of dg move because there's a unit only on cars in DG grow, sometimes the sectorial division, it's complicated.

A. Yes sure and that's often exactly the same in cars as in any other sectors, there's no clear dividing line but DG move will be responsible for policy for example, how do we deal with infrastructure? How do we encourage member states to put recharging station at least on every motorway so that people can properly use their cars? Also Move would be responsible for dealing with member states in issues such as policy that a number of citizens have to have a ban or reduce access to polluting cars. And this is another issue, this is what I find sort of interesting a difficult thing for the Commission is that if a city like London or number of cities in Germany in Paris also where say pollution is a real health issue, if we can get greener cars on to the city streets and keep the most polluting ones away and even banning some cars altogether then the public health benefit, so you say oh yes from the commission's point of view anything to improve public health is good, anything to improve environment is good if you can make cities less congested that's good. But the principles of the single markets are that if you buy a car that's perfectly legal and licensed to be on the road then you should be able to use it within the single market and how do you balance citizen's rights where she/he wants to drive wherever they want, there's a right of the citizens to balance, the sort of issues we get.

Q. And you can't regulate that...

A. Well I'm not a lawyer, as I understand the issue over whether cities can ban or restrict cars primarily perhaps not completely but primarily a matter of national competence cause what we would say to the member states is usually a legal obligation to ensure that all citizens have access to quality air, how you achieve that is up to you and so citizens have gone differently roots to meet their legal obligations whether meetings these obligations possibly conflicts with other legal obligations that's a matter that needs to be directly resolved.

Q. Do you have any direct experience with and maybe a policy tool for example that has been implemented by member states that challenges assuring compliance because I assume the commission monitors also the level of compliance of member states.

A. Yeah I mean it's not something I'm involved in this unit of course after what happened with Volkswagen and its issue then we want to make sure that member states are meeting their obligations to ensure that the Commission, these cars they need to be retrofitted it means that the software that was in the car was giving misleading ..is changed. And so there other colleagues here who are responsible for checking what member states are doing. And if they're not doing it or they're not doing it quickly enough to start the infringement, but that's difficult to give an example that's an area where we get involved and any you know any unit in the commission that has the responsibility for significant legislation also has the responsibility to show that the legislation is properly implemented into national law and check how it's implemented and then in particular if you get complaints about how it's been implemented and if necessary then go down the infringement route.

Q. You also mentioned the heavy duty vehicles, has it been discussed by parliament?

A. Yes

Q. Because I've seen it in the items of the agenda of the ENVI, so basically you made the proposals it went to parliament for amendments and it will go...

A. The way it works is that the Commission in November last year for cars and in May this year for trucks they made a proposal for CO2 standards that should apply from 2022 or can't remember the date it's different for both. Then that proposal is addressed to the Council and the European Parliament so there's been two approach proceedings 1 for cars 1 for trucks in both the Parliament and the Council and the Council and the Parliament have to make up their own minds what they think about the proposal and whether they would like to have amendments then the council and the parliament come together to see if they can reach an agreement of what those proposals are and the ..

Q. That's the trialogue.

A. That's the trialogue, because the Commission is there as well also we have an interest to see that the ambition in the original proposal is maintained and so we're there in negotiations of both.

Q. We can't generalize like a recurrent pattern, like the commission proposals always like kept consistent with the parliament assessment I don't know they're completely altered?

A. No I think it would be very rare for the Commission proposal to go through not altered in fact in my time in the Commission, I've never known a Commission proposal to go completely unaltered by either the Parliament or the Council but of course the Commission

doesn't produce a proposal out of tin air there's quite a long consultation process always involving member states and sometimes the parliament as well so when we put when the proposal goes is adopted by the college of the commission it's...we're already aware of member states views probably the views of the Parliament, the industry. It doesn't mean that we accept them but that we're at least aware that we'll do our best to put forward a proposal along the lines what we think is required and is also politically realistic, that's the what you'll see is a proposal for CO2 standards and I'm sure Clima would have told you what you've concerned with, it's still ambitious but realistic. It's trying to find a balance between environmental goals and what the industry can do and what and still be a competitive industry. So, my experience them so it's very clear that some countries think that what the Commission has proposed is not ambitious enough. Quite lot of countries have said that some say that -This going to kill our industry, we go too far too quickly and some countries support the commission standards and say it is a balanced proposal. In the parliament usually the views are much more extreme in word, more varied so some proposals like the green party would like to see much more stringent controls some on the right would say, you know the jobs and innovation are more important and the commission is demanding too much too quickly so then parliament has its own process to reach a formal position on the proposal as does the Council, both sides have an agreement, they try and find a common agreement.

Q. But you also, when you consult the member states, do you also consult the industries? As part of stakeholder consultation and especially those who rely still on dirty forms of energy how do you deal with those?

A. Of course we start off by saying, we have to have a policy that supports the agreed position on environmental goals. So, we're not going to come in and say we're going to relax, they control on pollution that's not going to be an option. If this is going to be, how can we do that in a way that helps the industry to adapt, to take advantage of it and to be competitive on the world market and still meet environmental goals. That's the process so you talk to the industry and of course and lot of industry will say -No this is not possible we can't do that you're going to destroy us. But then you have further discussions you come up with a proposal in terms of you know how you can help with incentives for this there are lot of incentives, to help industry encourage them to produce low emissions cars we don't say you have to have batteries but we have to say with technology, the emissions have got to be this, if they are not that you pay a penalty, if you over achieve you get credits for it and how you work out credits in the system that is a really important part of the package, so you get industry views on that, you also get NGOs views on that.

Q. But ENGOs?

A. Yeah there's a group for example TAE transport and environment and there are lots of climate groups who would come and say , you don't listen to the industries this is much more, you know the environmental public health they are much important not necessarily than jobs. If you have very demanding targets, the industry will respond and meet those targets but that's going on, of course member states will have their views some have a very large car industry we have a particular perspective, member states who have a large car industries will often have a very different perspective , perfectly normal standard day to day basis business and parliament will reflect different political views and it is the Commission job to start with this original proposal, take account all of these views and come up with something that is worth implementing and in a way that we think can be done effectively , whether we get the balance right whether the agreement we reach with the parliament and council turn out to be effective or not we only know in 5 or 6 years down the line but this is absolutely the task that we have.

Q. You mean 5 -6 years ...

A. Yeah, I mean let's say we reach an agreement by the end of this year , we have a Regulation that is agreed with Parliament and Council that comes into effect I don't know I forgot when it comes into effect a year from now, it's only then 5-6 years down the line that you see whether it's working or not industry is able to meet targets are we seeing an impact on reductions and air pollution I would say more non petrol non diesel cars coming onto the market but then you don't see it straight away , it takes time to come through ,you need to look in 10 years' time, 15 years' time if it's we 'll have to see.

Q. Are you I mean you as a directorate or as a unit, aware of the narrative of urgency that it's coming from the IPCC report, they say we don't have much time, we're not on track , do you think maybe it's a dull question I shouldn't be asking that is all too slow.

A. Yeah.

Q. I know, it's part of the process it can't be made that quick.

A. Yeah I mean absolutely if you talk to someone like T&E we haven't got time for this, nice it is finding balanced approaches, time is gone, we got to be serious, I mean I think that the view of the Commission is you have to be realistic, we can't say there have to be no polluting cars on the market as of 2025, that will never be adopted by parliament or council full stop. So, you don't have that choice. What choice do you have? What you have to do is trying find a place where if you assume there still going to be requirements for people still want to own cars , they want to be able to drive on their own independent way then do we want? We can say right we can just take Chinese cars , they can't be built here they still

provide jobs although it's Chinese manufacturing based in Europe , that is also not a politically acceptable choice , and certainly we're not being we're all about promoting a European industry so what we want to is to have a European industry that is investing serious quantities of money into research into non petrol and diesel forms of energy for cars. And then we have an industry that is competitive in the world market so I mean you start with absolutes and you can try to come down to a point where we can make a difference and with something that is practical and politically acceptable to implement I mean that s the challenge with all these things.

Q. I assume you have been involved with the preparation of the report that is coming in 1 week the 2050 long-term strategy.

A. I'm only very at the margins of that so I'm not dealing with that I'm aware of it, I got stuff that came across my desk but I'm not responsible for that.

Q. If we can take a step back because we were talking about raw materials batteries as secondary raw materials this type of things do you deal with circular economy? In know that DG env and DG grow work together in that sense, so I've been told.

A. Well I'm aware of the principle of the circular economy.

Q. Have they been embraced fully by DG Grow or are they like on the margins, there is this thing of the circular economy but...

A. We have colleagues here working full time on the principles of circular economy, it's one of these policies that seems common sense, it's like evidence based policy making, I mean since when policymaking hasn't been evidence based, it's providing an aim for something which is has always been there as a reflection on how you make things why would you make set out to make something which couldn't be recycled or reusable , in fact you may not have a choice over there it's not a deliberate policy end. Of course what's happening now it's a more active attempt in all range of policies how you can do that, for us we see it in a battery what we're doing where we want to make sure right from the start that the requirements for batteries is that batteries in cars means that they can be easily recycled.

Q. Which is part of the ecodesign.

A: Ecodesign is a tool the core objective of this is...

Q. Are they easily recyclable, apart from the lifespan you said that it doesn't match the demand?

A. Yeah colleagues would tell us that all of this can be recyclable and there are factories in Belgium that can recycle this. The key issue and this is what has to be tackled by design is what a company that is doing the recycling does not want is to receive a battery when a person spend an hour to undo all the screws and take out all the different elements. Because

that's what makes the process unaffordable what you need is a battery that can go into the machine and being dismantled automatically. So to design if you can do that that shouldn't be mission impossible then recycling batteries is straightforward and we can do with the technology we have at the moment and re use all the core element for recycling. So of course the things with cars unlike with mobile phones you will have people finishing with their cars, then they are going to go back to dealers they're not going to be thrown away in the bin like this like mobile phones are , they should come back into the chain. People who know more about this more than I do are quite confident that as long as you solve this design issue not only you can have an obligation of manufacturing to ensure all the recycling in place and make it easy and profitable but we'll see.

Q. I pretty much covered all the aspects I wanted to cover and that you could answer from your perspective of the cars. Do you know anyone in dg grow involved with the circular economy as a philosophy?

A. Sorry I don't I'm sure there are colleagues. I mean I don't have direct dealings on that , I'm aware of what the principles of the circular economy are, but I won't be drafting the regulations on the requirements for batteries, the people who do that will have to whether they support or not they need to include those principles there. You also have DG environment the battery directive is being reviewed.

Q. Yeah, they did mention that at the raw material week but I didn't get properly the stage at which this like the policy making process is achieved and it has to be implemented or is it still...

A. What's happening at the moment is that DG env is coming to an end of internal reflection on how the Directive should be updated and amended, so I think that next year there will be, I'm on, we granted cause I'm here I don't have the details to in my mind properly but they will start a process to look at proposing a revision of the directive of all consultation. So it's the sort of things that can go into the battery Directive is obligations on collection points for batteries for percentage rates for recycling, cause you're not just talking about car batteries, you're talking about all batteries and what we have how we can be better at recycling but also the battery Directive covers all range of other issues but that is the next if I understood that correctly for the next commission because you know this commission...

Q. So you hand it over to the next commission. So one more question about cars, I don't have one and I'm a very terrible driver and I'm not very in the world of cars cause we've been focusing on the batteries and how it can be recycled but what about the rest of the car? Like the interiors that can be recycling that can be reused I don't know.

A. I mean the answer is that I don't know, certain parts of the cars I mean the metal can be recycled I don't know to what extent how much what percentage of the car can be recycled.

Q. Also in terms of safety issues, you know it has to be solid.

A. Sure and the second aspect is how profitable is to do so that all elements of the cars can be recycled but if there is not profit in it and it costs then companies are not going to do it. I just don't know the answer what the issues are there certainly the cars are much more complex, colleagues here are dealing with new safety regulations coming in with automatic braking and so on and if you genuinely going it have autonomous cars that are connected in real time to the internet to the networks I mean this is a new foreseeable future probably going to be quite different compared to what we got now in terms of where we get the power source possibly look. But certainly, the internal part of the car much much much more sophisticated.

Q. Which might be a bad thing because it's like the phone we have every couple of years you need to change it whether, you buy a second hand where you go to recycling centre but you have to change but before that you had a good old phone that will last as well with cars. You know the panda from fiat people would drive it for 30 years.

A. Personally it's not my favourite car it's a bit incompatible for some of the devices, but there are plus, cars are going to be greener, they're going to last longer whether people want to keep it or not it's a different matter and they're going to be safer. if you get the real benefits of automation it means that in terms of controlling speed it's safe and fuel efficient as always, it's risk benefits. Was that good?

Q. That was perfect! thank you so much.

Interviewee 12 (No recording allowed) (25/11/2018)

Interviewee 13 (26/11/2018)

Q. I would ask you first to introduce yourself and explain what you do in your with your job role and within the JRC.

A. Yeah so my name is [...] and I'm working in [...]. As you know the JRC is not located in Brussels but is located across 5 sites with only 1 headquarter being in Brussels. [...] is actually focused mostly on economic questions, socio economic techno economic issues across many different fields: agriculture environment, taxation but also energy and climate and exactly the unit I belong to, so I started in [...] basically, I have always worked in the field of energy and climate but also air quality so that's an issue for environment and some experience on taxation on fields like transports and so on. Currently I'm leading a group on

modelling assessing energy systems changes and also costs of energy and climate proposals by the EU or in a global context. For this I have a (Incomprehensible Ed.) of models and also, I can rely on a team of 5/6 people. So, what else. Our work is both for the EU, on EU level but also in a global context, we the JRC.

Q. What do you mean in the international context?

A. It means in principles that if you look at the proposals the 2030 they're only focused on the EU but before Paris, the Paris agreement there was our analysis is done in the global context, we deal with issues' in China or in the US so we don't look at specifically only the EU, but also at the borders of the EU and it depends on the time and whether we look in the EU outside it depends on where you are in the policy process.

Q. So, can I ask you obviously you can't say much but I assume you actively contributed to elaboration of the report that is going to come up in a few days which is the long-term vision for 2050.

R. I'm very familiar with that yes. Also here if you see just in a couple of days if you look it at the website you will see that basically I recommend you to look to the impact assessment in a couple of days you will see that the impact assessment has obviously a lot of focus on the EU, but with some global context there will be a few days later a report called the Geoc report of the global energy and climate report of 2018 which actually gives global context of the EU impact assessment if you wish.

Q. And the JRC as an active research centre is actively involved within this.

A. We're involved in both, we're involved in the EU but we're also involved, we completely wrote the global report, the Geoc report is a fourth edition it started before Paris. But it has much less than a form of official status than an impact assessment. Nevertheless, DG Clima and DG Energy are keen to publish this because it supports the analysis it adds onto the analysis. With the impact assessment itself it's a Jrc but also all the actors are in there the JRC is quite prominent though and yeah, I think.

Q. That's very interesting but can I ask you in terms of the Jrc, because I've been speaking to other DGs of course, so the JRC if I understood correctly is not what is called a policy DG.

A. No, we're not a policy DG because we do not have any specific policy, we are responsible for, we don't have agriculture, we don't have environment we don't have climate we don't have energy. However we are a service horizontal service we deal with we support the policy DG, so we come because the back office of the proposals that can be here in [...] you have a group doing now you have to be careful it's IPPC integrated process prevention and control which actually sets best available techniques for sectors large conversions plans or for

sectors as textile or furniture of whatever type of things that can be used as best techniques and technologies for having a sustainable production so I did a test for DG Environment. Another group in [...] they do test-cycles for cars so they deal with air quality but also CO2 emissions standards so they do work for env basically Dg Grow, mainly, Clima and then I think these 2 are the main ones Move, where they test difficult different types of cars, driving conditions. So we provide analysis as the JRC we provide analysis which very often underpins the initiatives by the policy DGs and this analysis can enter different channels in the policy process so it can enter into various channels, it can enter in an impact assessment staff working documents company proposals but sometimes it enters to different ways like stakeholder organizing different professional associations, coordinating different professional associations or monitoring for example. It's different it's quite heterogenous the topics are very heterogenous so every single topic that the European commission is touching upon and it also can enter different DGs different stages of the policy process.

Q. But so you said various stages of the policy process. Can I ask one thing the input the policy input comes from the policy dg I assume so they ask you we want you to work on this issue.

A. That's kind of, we also have some degrees of freedom, obviously if you work with them they say look we need you guys in the next 6 months-9 months to work on something on 2030 framework for example that's the slot I have covered since 2008 that was published I nearly 2014 the work was done in saying 2013 we need your time whatever months in 2013 to work on 30% proposals in 2030. So obviously we were very focused on that but sometimes policy process goes like they are and you may work differently as a unit as a group you may decide to work more, you have to change to it's a kind of willingness on our side and also a kind of needs on the other side you need to find a match if you wish. To work on air quality for example it's matter of managing the time so that you can't do both things you can't do both things you can't use too much of your time or use too much of resources to do the necessary. But also in other moments when pressure is less you try to be specialist, you have to catch up with state of the art in your field or you plan to do report or studies which are very interesting but which are not necessarily a policy proposal. So, I mentioned to you the Geco of this year the global energy and climate report of this year which is going to be published on Wednesday or Thursday within the end of the week say. And last year we had another one which was basically dealing with the link between the impact of the Paris agreement in the air quality so you actually reach to air quality by DG env climate obviously led by DG Clima on a global scale there is no specific policy process associated with it. Although it was an interesting topic I mean that was published last year this report is on a

paper in Nature which was published last week in nature and communication we found out that actually despite the fact that we are not specifically asked to do this by DG env or DG Clima “use this and this” in the process. So, you are close to the policy activities but sometimes you have more academic activities if you wish. Yes, then ideally it depends on which section you are in the JRC but I’m speaking from my unit, nevertheless, we are still relevant in our academic activity as well which I think this Nature article is a very nice example.

Q. Does it happen that the political feasibility or compatibility of a certain policy clashes with what you as a research centre tries to work on and achieve.

A. Can you repeat this?

Q. Yes sorry, I was just wondering whether you as a researcher academics sometimes have challenges to overcome in the policy making process with the various DG of the Commission given that what research recommends sometimes doesn’t match, the political feasibility. I mean because the DGs like DG Clima DG grow they all obviously consult the stakeholder they all have outside the Commission itself they all have the different interests, businesses, ENGOs. So, it’s a constant negotiating process and then you academics come up with your intuitions, impact assessment if what needs to be done and what can be done and so on, is it difficult?

A. It is difficult? Well first of all an impact assessment as such I’m not sure what you have in mind as an impact assessment but the official meaning of it is a document that goes together with any policy proposal that the commission makes and this is very much dealt by the policy DG, we fit into that, we’re not writing the impact assessment. As DG grow can also fit into DG Clima’s impact assessment we can also fit in that though we may have specific request by DG Clima to analyse a specific problem. But having said that we have done specific things for DG grow for example so it’s not that we work uniquely with DG Clima I mean DG Energy, DG grow. Clima is perhaps most important in my case and env and Energy are also very important for DG Grow and Trade, so they come with a specific problem to us I do things that basically the reconciliation between different stakeholder in DG grow or DG Clima or whoever it’s something that is done by the service groups. The JRC is also a part it’s typically led by the policy DG together with its Agency.

Q. Ok so maybe I can ask one last question. If you are a research centre but still a dg what’s your relationship with the dg research and innovation?

A. That’s something to ask to the headquarter the difference is more or less clear but still evolving relation between RTD and JRC. The JRC are the in-house research we do research. RTD is a funding, it’s actually a research policy DG and the RTD is a funding body, so they

fund European research beyond the borders of the Commission and the EU. And also the RTD provides the respective funding to specific projects where Cardiff university is involved. So, it's 2 different things. Having said this the headquarters are in the same building so I can only presume they talk to each other, which they do. but we do research we're much more well we do research, in a sense RTD is a policy with research as a policy domain.

Q. Do you have role at COPs?

A. Do we have a role at COPs? Yes because I also mentioned that we work both on the EU level and the international level so and this kind of studies have reported the relation of air quality and the Paris agreement have they're typically scheduled by the EU in fact Clima at side events , so almost every year we have been there one of us that's one thing. Occasionally we're called for specific sessions but not so much at COP itself but on the mid-season in Bonn. It's not COP but they have sessions in May.

Q. Yes, the mid-term session, I don't know how they call it but yes.

A. So, for example I was there for a session that was not a side events it was a session in the negotiation which dealt with modelling they call it specific knowledge in that happens not too often but that has happened. And we're also because we're a research body we're also say in a technical dialogue with our colleagues modeler analysts in major countries so we have quite good consultations with people from us we have good relations with people from China, Brazil, India and so on Korea so let's say because in those countries there exist in one way or another in different forms similar things like the JRC. And we have a dialogue I mean we know what they do what they do as data their methodologies and also that's also a way of contributing to climate diplomacy so the idea is that if you agree on data and on methodologies it's easier to talk.

Q. So I think that's pretty much what I wanted to ask , I was trying to contextualise the role of the research centre because it' was not clear to me in comparison with all the policy dg so I think that's pretty much clear so I think that's it for now maybe I don't know if there's something I forgot to ask now that I'm going through my notes and everything can I just drop you an email , so thank you again.

A. You're welcome.

Interviewee 14 (29/11/2018)

Q. Quello che sto facendo io è un'analisi di tipo qualitativo, perché faccio analisi del discorso ecc, sul contributo dell'UE riguardo alla commissione di per sé perché i proposals vengono

tutti dalla Commissione sull'azione climatica all'interno del quadro più ampio degli accordi di Parigi. Io sto analizzando in the making quindi nel processo di formazione quindi tutto quello che ho è parziale ovviamente, non sappiamo esattamente e nemmeno voi da qui al 2050 appunto come andrà. E quello che sto cercando di fare adesso è veramente cercare di ricostruire il policy landscape che tra le varie DG e i vari stakeholder sto cercando di ricostruire fare la mappatura di attori, istituzioni di come funziona e di come questo discorso della mitigazione climatica perché non mi concentro sull'adattamento viene formato e riformato nel processo. Quindi ho cercato di adottare un approccio orizzontale, sono stata a dg clima, DG Energy, DG Grow, DG RTD, JRC.

Q. Inizierei con l'intervista, si presenti mi parli del suo lavoro di cosa si occupa esattamente, non so giornalmente le sue attività.

A. Allora io mi chiamo [...] e lavoro alla DG ambiente da [...], prima lavoravo alla DG [...]. Dunque, questa unità ha un nome molto lungo, SDG Green Finance and socioeconomic analysis. Dunque, lavoriamo su tanti temi e anche se non è nel titolo uno di questi temi è l'energia e il cambiamento climatico. Che ovviamente la DG Environment non è la DG che è nel lead dell'energia e del cambiamento climatico. E dunque il nostro ruolo è un po' di controllare discutere con i colleghi alcune di queste soluzioni che si presentano politicamente possono avere conseguenze ambientali. Il nostro discorso con l'energia e con il cambiamento climatico è che ci sono tante sinergie ma anche tanti trade off. Un esempio di trade off è la biomassa. Gli ultimi anni sotto la Renewable Energy Directive che adesso è in funzionamento. Quello che è successo è che i paesi europei, basati su questa direttiva hanno finanziato la deforestazione in paesi terzi. Anche in Europa. Ma soprattutto in paesi terzi. Perché è vero che ci sono criteri di sostenibilità per i biofuels del trasporto ma non per il resto. Questo adesso la DG Energy si è accorta di questo problema e nella nuova Renewable Energy Directive verrà corretto. Si parla di ILUC Indirect Land Use Change. Cioè queste conseguenze di cambiare l'uso della terra per produrre energia in altri paesi. E si parla di criteri di sostenibilità per tutto l'uso della biomassa. Però questo è un po' il nostro ruolo è dire "state attenti che oggi come oggi la maggioranza dell'energia rinnovabile viene dalla biomassa. Se si prosegue così con la bioeconomy ecc alla fine non avremo biomassa e distruggeremo gli ecosystem services e la biodiversità. Dunque, questo è il nostro problema. Poi ci sono tante sinergie, ho cominciato con la parte negativa però prima come adattamento è chiarissimo water retention, flood protection, ridurre la temperatura quando ci sono alberi ecc., il carbon sink in termini di mitigazione, dunque ci sono tantissime sinergie e dunque noi difendiamo siccome sappiamo che la biodiversità è in pericolo. Se adesso il cambiamento

climatico è il problema più grande dell'umanità, probabilmente il secondo è la perdita di biodiversità.

Q: O comunque è tutto legato.

A. Sì è tutto legato. I problemi di biodiversità diventano più gravi a causa del cambiamento climatico e viceversa. Questo è il nostro discorso sempre perché storicamente la politica climatica della commissione europea è stata focalizzata soprattutto sull'energia. 75% delle emissioni vengono dall'energia, ha una logica. Per quello anche a livello amministrativo c'è una DG ener, DG clima, DG Env quando nel passato c'era un DG Env con Climate e ci sono 2 commissari diversi, Miguel Arias Cañete per energia e cambiamento climatico il che è già abbastanza simbolico e il commissario Vella per Env per l'ambiente e questa è una cosa che si vede negli ultimi anni, mentre storicamente in tanti paesi in Spagna e tanti paesi climate environment in realtà è la stessa cosa qui a livello europeo si vede una separazione molto netta e l'ambiente non sembra essere una priorità di questa commissione Juncker.

Q. Questo dal mio punto di vista linguistico in cui studio gli slittamenti di significato, climate and energy, ambiente sta un po' accantonato quando in realtà no, è quello che dovrebbe stare al di sopra, overarching.

A. Ma questa è la situazione, una cosa interessante che potresti guardare, io l'ho fatto, le 10 priorità di Juncker. Una è energy union e climate action dunque una delle priorità penso sia seconda terza una delle prime. Però l'ambiente praticamente non se ne parla dunque questo puoi fare un search, l'analisi linguistica è molto interessante. Non ti dico le mie conclusioni però sì praticamente non se ne parla. Dunque, chiaramente l'ambiente non è stata una priorità che dopo per i processi internazionali perché c'è una pressione sociale cittadina perché poi c'è un gioco dell'amministrazione, dopo la Commissione ha difeso molto i SDG, dunque c'è stato un certo cambiamento però all'inizio per Juncker non era una priorità chiaramente. Dopo ancora una volta Timmermans ha fatto dei discorsi molto appassionati su SDGs, l'ambiente eccè si vede poi nella strategia che è stata presentata ieri si parla 2-3 volte degli SDGs, si parla dell'aspetto sociale, dunque c'è stato un movimento però non è la priorità di Juncker.

Q. Non è il primo a dirlo questo.

A. Parlavo un po' della pressione sociale, ci sono gli eurobarometri che dicono (ti posso anche mandare il riferimento) che dicono che per il 90-95% dei cittadini il cambiamento climatico è un problema, però c'è un altro eurobarometro che dice che sì per i cittadini anche per 90, 95% o 85% adesso non mi ricordo i dati l'ambiente è un problema per loro e nella loro vita di ogni giorno, vorrebbero avere più natura intorno, sono preoccupati per la qualità

dell'aria. Qui a Bruxelles per esempio e dunque c'è una pressione cittadina e anche delle aziende. La circular economy...

Q. Ecco quella sarebbe stata una delle mie domande, ora che l'ha menzionata, prego prego!

A. Qual è la storia politica e amministrativa della circular economy? C'è stata una comunicazione presentata un po' prima dell'arrivo della commissione Juncker e una delle prime cose che ha fatto questa commissione è stato cancellare la Circular economy. Però a quanto pare io non so ovviamente cosa succede in questi piani molto elevati del Berlaymont però ci sono sempre dei rumori ma quello che si dice è che ci sia stata una pressione delle aziende europee, grosse aziende, ma come potete cancellare questo se per noi è una priorità, noi stiamo già facendo la circular economy, parliamo della transizione energetica ma c'è una transizione circular economy che è anche presente. Questo è chiarissimo Bruxelles ricicla ho i dati qui 90% della carta 80% della plastica questo si sta usando nel mercato ci sono tanti studi che dimostrano come anche la circular economy è una condizione sine qua non per la decarbonizzazione.

Q. Quello che vedo che la circular economy è sempre presente ma...

A. Sì in secondo piano.

Q. Quando è l'economia che deve diventare circolare, dall'ecodesign fino al fatto che le parti si possano scomporre ed è per tutto, i tavoli le sedie, gli oggetti tecnologici cioè è un ripensamento a livello filosofico del sistema.

A. Sì, dello stile di vita di produzione e di consumo

Q. E credo ci sia anche un modello economico dietro, dal fondatore, adesso non mi ricordo il nome.

A. E c'è uno studio probabilmente te lo hanno menzionato di material economy and Sitra uno studio recente se vuoi te lo mando che dimostra che per settori come l'acciaio e la plastica come il cemento senza circular economy non ce la facciamo a livello di tutta l'economia. Però a livello di tutta, dunque ti raccontavo un po' la storia. Questa circular economy è stata cancellata a quanto pare questo sarebbe da confermare con gente della gerarchia della Commissione, dopo queste lobby queste pressioni la posizione ufficiale della Commissione è stata, no ma l'abbiamo cancellata per migliorarla per lanciare un'altra comunicazione più ambiziosa che è quella che c'è adesso pubblicata che prende io direi sempre più importanza dentro la Commissione. Se hai parlato con Grow ti avranno parlato della circular economy. Nella strategia che è stata presentata ieri è molto presente cioè è molto chiaro però siccome fai analisi del linguaggio ti consiglio di guardare anche la comunicazione della circular economy perché non parlava molto del cambiamento climatico anche 2-3 volte si parla, sì. Questo ha conseguenze sul cambiamento perché probabilmente

non c'era una base scientifica molto forte per dimostrare con dei dati questo impatto. Adesso ci sono sempre più studi però questo ti posso dire è stato un dibattito quando il processo di preparazione questa strategia a lungo termine è cominciato uno dei problemi è stato la modellizzazione. Tutta la modellizzazione sul cambiamento climatico, la circular economy non c'è. E questo sono arrivati con assumptions non a modellizzare la circular economy però a introdurre parametri della circular economy nella strategia, nella modellizzazione. E dunque se guardi questa strategia c'è una presentano 8 scenari alcuni tecnologici, uno è la circular economy, scenari devi verificare i dati eh, su 5 di questi vediamo a memoria hydrogen and synthetic fuels, un altro è la circular economy, un altro è resource efficiency, energy efficiency ecc. Con 5 si arriverebbe a 80% di riduzione, dopo fanno una combinazione tecnologica circular economy e dopo prendono un'altra combinazione però circular economy and changing lifestyles. Non usano questo termine questo molto importante il linguaggio, si usa changing consumers' choice, cioè inizialmente era changing lifestyle però a quanto pare questo a livello del Berlaymont non piace perché è un po' considerano che imporre un modo di vita.

Q. Questo l'avevo notato perché avevo chiesto, il changing lifestyle, se lo si possa imporre, non avevo usato il termine imporre però, mi avevano detto, no quelle sono derive autoritarie.

A: Sì è percepito così però se guardiamo un po' l'atteggiamento anche delle aziende anche di politiche europee c'è poco a poco questo cambiamento di lifestyles, cioè il cittadino è sempre più cosciente dei problemi della contaminazione, della qualità, della bassa qualità di quello che mangiamo. Tu sei italiana quindi sei molto sensibile no? Dunque, cosa succede? Le aziende vedono che c'è questa pressione sociale di essere più green o di sembrare più green, non necessariamente essere, Mc Donald's che cambia il colore invece di rosso è verde ok o che ti dicono che usano, o coca cola che ti dice che usano meno acqua per produrre le sue bevande. Ok. Ma tante volte sono veramente cose che fanno eco innovazione ecc. È interessante perché c'è il community innovation survey questo è il sondaggio che eurostat fa ogni 2 anni e ogni 6 anni c'è un eco innovation module ti posso mandare informazioni anche su questo e l'ultimo quello fatto nel 2014 c'è questo ecoinnovation module e si vede che chiaramente la ragione principale per l'eco-innovazione è la reputation non è la legislation. Non è ridurre i costi che sono quelli a cui pensi immediatamente no? Perché faccio la circular economy? Perché riduco i costi. Questi sono importanti però il primo è reputation, cioè le aziende sono coscienti di questa pressione, questa domanda per changing lifestyle.

Q. Parliamo di piccole e medie imprese?

A. No tutte. Dopo bisognerebbe fare un'analisi più dettagliata per sapere in che settori ecc. questo io non l'ho fatto, però si potrebbe, sarebbe interessante, anzi e dunque cosa succede

che ci sono tanti di questi strumento come gli eco-label che ti danno un'informazione più trasparente al cittadino dunque alla fine si può creare un circolo virtuoso di io voglio mangiare più sano, più locale ecc. e l'azienda e posso quando vado al supermercato vedere quello che è meglio secondo la mia ..Dunque quando parliamo di changing lifestyle a me personalmente non mi sembra , questo sta succedendo , non mi sembra una cosa imposta . È una questione di dare più informazione, dunque poi ognuno decide, ma sono cose che non esistono ancora, io quando decido quando sono su booking e sto scegliendo un albergo non ho nessuna informazione sull'environmental footprint. Tante volte non sai che albergo decidere perché ci sono parecchi allo stesso prezzo nella stessa zona dune per me sarebbe determinante, magari è una cosa personale però mi dicono sì perché guarda qui nella colazione sono prodotti locali ecc, ok benissimo, tutto qua, dunque una questione di informazione. E questo la comunicazione se leggi sono 30 pagine, qui magari c'è una frase, però se si legge attentamente parla un po' di questo. Se si legge attentamente changing lifestyle consumers' choice. Dunque, c'è un cambiamento che sta avvenendo. Dopo, smuovere questa macchina che è la commissione è molto difficile.

Q. Poi immagino sia anche un problema di competenze, cioè la commissione dà il panorama regolamentativo e poi gli stati membri.

A. Ecco questa è una cosa importantissima. Perché com'è il processo di decisione? Probabilmente lo conosci. La Commissione secondo il trattato ha il diritto dell'iniziativa legislativa. Vado un po' prima. Ci sono diversi tipi di testi legali della Commissione, puoi fare una direttiva, un regolamento, questi si devono applicare. Dunque, un valore legislativo, una decisione e dopo ci sono le comunicazioni. Le comunicazioni in realtà quello che fanno è rappresentare una strategia, una visione della commissione, ieri quello che è stato presentato era una comunicazione. Dunque, la commissione presenta, dice che si dovrebbe andare verso la carbon neutral in 2050, zero net emissions. Su questo c'è stato un dibattito, non so perché si è passati da carbon neutral a zero net emissions, ma nella comunicazione hanno cambiato il termine, per me sono sinonimi.

Q. Sì è' vero alla fine carbon neutral, non vuol dire zero carbon ma lo si mette in ogni caso però è contenuta o comunque l'atmosfera è in grado di riassorbirla.

A. Sì un'emissione ci sarà sempre. Dunque, questa è una comunicazione che è poi non è prescrittiva. Non dice agli stati membri guardate dovete fare la circular economy o dovete fare l'idrogeno dovete fare energy efficiency or whatever. Presenta diverse opzioni, diverse tecnologie diversi approcci e dice che seguendo il rapporto dell'IPCC, ok la situazione è drammatica, dobbiamo fare un'azione molto urgente, però l'IPCC ci dice che se facciamo questa azione urgente si può fare. Dunque, questo è il messaggio della comunicazione. E

dunque presenta diverse vie che si dovrebbero seguire con questo obiettivo di decarbonizzazione totale 2050. Ok. Questa è una comunicazione cioè non sta dicendo per esempio come dice la Renewable Energy Directive by 2050 you have to reduce your emissions by x or you have to increase the use of renewables by y. Non è così. Però ovviamente questo ha un impatto molto forte su aziende, stakeholder, cittadini perché alla fine sta dicendo dove andiamo. Dunque, questa è stata una comunicazione che verrà presentata a Katowice e dopo se leggi la comunicazione alla fine dice che adesso una commissione invita il consiglio e il parlamento a discutere e ad andare avanti con legislazione ecc. comunicazione. Però ad esempio se guardiamo renewable energy questa è già una direttiva. È un altro discorso. La commissione fa la proposta e nel fare la proposta non pensare che lo facciamo qui con qualche collega a riunione. Prima si fa un impact assessment, poi uno studio, si calcolano gli impatti economici e ambientali e sociali ecc. diverse opzioni lo fate voi nelle DG.

Q. Lo fate voi nelle DG o lo si commissiona?

A. Sempre lo fa la Commissione, c'è sempre un interservice group, c'è sempre un servizio che è on the lead ma ci sono sempre studi, in questo caso modellizzazione. A volte lo fa il JRC altre volte sono esterni e dunque la commissione alla fine fa una proposta e dunque in questo impact assessment c'è un gruppo di grossi esperti interni il regulatory scrutiny board che dice ok questo è ben fatto ok potete cambiare. Hanno sempre dei commenti negativi, qui si dovrebbe cambiare questo, però ok potete andare avanti e così la Commissione presenta una proposta di direttiva che è quella che deve essere approvata discussa dal parlamento e dal consiglio, dunque il primo passo informale ma molto formale e il trilogio dunque commissione parlamento e consiglio fanno diverse riunioni per avere un accordo sul testo finale. Questo è quello che è successo con la nuova Renewable Energy Directive. È stata una lunghissima discussione per mesi forse anche un anno anche di più adesso c'è un consenso che dovrà essere votato al consiglio e al parlamento. Però di solito.

Q. Quindi deve essere ancora votato, non è approvato.

A. Però una volta che c'è un accordo non si torna indietro, ci saranno cambiamenti cosmetici dunque tipo il numero dell'articolo, invece di essere 17 questa è la Renewable Energy Directive probabilmente cambieranno cose ma formali.

Q. Ma quindi questa finirà nel pacchetto strategia a lungo termine.

A. No questa è una cosa a parte. La strategia dice chiaramente che gli obiettivi del 2030 non cambiano. Sono gli stessi che sono stati fissati.

Q. Ma negli obiettivi del 2030 ci rientra questa Energy Directive?

A. Eh questo sarebbe da verificare, qual è la connessione emissioni e renewables energies. Dovrebbero essere coerenti perché probabilmente nell'impact assessment hanno analizzato quello.

Q. Invece quelli più recenti 2020 mi sa dire.

A. Sì la comunicazione spiega che questo ce la faremo, sì sì siamo molto vicini manca ancora un anno dunque questo non sarà un grosso problema. Dunque, questo obiettivo della strategia come dicevo non è una prescrittiva. Può diventare prescrittiva se ci sono dopo dei passi legislativi che vedremo per il momento. Devi leggere la comunicazione. Dunque, il processo di decisione come funziona? C'è sempre un gruppo interservizi, c'è una dg che è on the lead però si discute l'impact assessment si discute il testo legislativo e anzi prima di andare alla discussione con il consiglio e il parlamento c'è quello che chiamiamo la grifish, i sta per interinsituational o interservice, è un acronimo. Dunque, qualche giorno prima delle riunioni ogni DG riceve la possibile posizione della commissione. Dunque, in questo caso la Renewable Energy Directive in questo caso DG energy dice ok la posizione del parlamento è questa qua la posizione della Commissione del consiglio è questa qua. E noi pensiamo che dobbiamo essere più vicini a quella del parlamento una cosa del genere e dunque le dg dicono non siamo d'accordo no no no perché questo è troppo lontano dalla posizione della commissione dobbiamo. dunque è un processo informale ma molto formalizzato. Dunque, c'è sempre questo ruolo di tutte le DG. Nel caso della strategia la logica è stata un po' diversa: prima dell'estate abbiamo fatto un contributo ogni DG sui diversi quelli che hanno cambiato i building blocks, erano guardiamo perché non mi ricordo adesso a memoria.

Q. Io sono stata a qualche evento, tipo stakeholder events EU for Talanoa, EU for long-term vision.

A. Sì tutti i lobby quando hanno visto che ci sarebbero stati questo lavoro hanno organizzato eventi per ovviamente fare una discussione e presentare le loro priorità. Non ho detto che in tutti questi processi legislativi o di comunicazione c'è anche una public consultation, dunque cittadini aziende ecc. possono presentare la loro posizione, ora secondo me i cittadini non sanno che questo esiste. In questo caso mi avevano detto che c'erano 1500 risposte che sembra molto ma a livello europeo non è niente. Dunque, cerco i building blocks perché non mi ricordo. Dunque quello che abbiamo fatto con questo è stato che ogni DG ha contribuito con le loro priorità ma soprattutto quello che abbiamo nei nostri studi, dopo ti spiegherò un po' quello che erano...dunque building block era 1) era economy finances and investment 2) social and local aspect 3) innovation technology and infrastructure 4) role and use of natural resources dopo c'era una che si chiama global dimension and partnerships e ce n'è un altro che era...no sì questi qua. Noi abbiamo contribuito a tutti per esempio se prendiamo

natural resources, si doveva fare il swat, abbiamo fatto il swat abbiamo mandato tante informazioni di studi ecc, ok questa non è la versione finale però vedi un po' com'è, studi ecc., perché ovviamente la comunicazione avviene con uno staff working documents che è più analitico che è molto interessante e hanno usato questi almeno parte di questi studi. Dopo cos'è successo? che in estate i colleghi di DG Clima e DG Ener hanno lavorato ma tantissimo perché i deadlines erano molto corti e già qualche settimana fa abbiamo ricevuto sì a settembre abbiamo ricevuto lo staff working document e la comunicazione e il draft e ogni dg ha presentato i commenti.

Q. È comunque un lavoro integrato.

A. Sì s' in questo caso c'è stato un po' di secretismo di solito è un processo molto più trasparente. Qui secondo me avevano paura che ci fosse informazione filtrata e dunque per esempio quello che abbiamo visto noi avevamo tanti commenti, non commenti eccessivi. Veramente il primo draft era giusto 85% 90% eravamo molto contenti però c'erano delle priorità che non c'erano o che volevamo avere a un livello più alto no? E dunque abbiamo mandato dei commenti ma soprattutto abbiamo mandato una nota con le grosse priorità, abbiamo pensato se mettono già quello, perché avevamo 12 giorni per mettere tutti i commenti, ci sono tante DG noi avevamo già centinaia di commenti se vai nel dettaglio, ancora una volta non ho letto la versione finale dello staff working document però tutte le nostre priorità erano dentro. Dunque, forse ti interessa sapere quali siano le nostre priorità come DG Env. Dunque, per noi era, per esempio abbiamo analizzato il draft e per esempio la circular economy che era una priorità ovvia c'era già nel draft. Nello staff working document in modo molto prominente, nella comunicazione un po' di meno. Noi volevamo avere in modo più forte questa circular economy, anche era la stessa cosa per DG Grow, però questo adesso c'è.

Q. Posso chiedere una cosa, tenendo fermo che dobbiamo parlare delle priorità di DG Env Tra la comunicazione e staff working document, cosa va poi al parlamento?

A. Tutti e 2 ma penso che nessuno legga lo staff working document. Dunque, quello che è veramente importante è la comunicazione sono 30 pagine, questo lo leggeranno tutti, lo staff working document è molto ben fatto, vai a leggerlo, è veramente un lavoro fantastico, perché è quasi una guida, cioè se vuoi sapere lo state of the art delle diverse tecnologie ecc. c'è lì. Dunque carbon capture and storage and use, sì un po' tutto, resource efficiency transport cities ecc., tutto viene analizzato secondo me in un modo molto nuanced. Dunque, la circular economy era una delle nostre priorità un'altra priorità era i co-benefits dunque per esempio soprattutto per quality. Air quality i colleghi sono quassù e ovviamente è un problema molto grosso e una settimana fa ha presentato uno studio la European Environment Agency, c'è

quasi mezzo milione di persone che muoiono ogni anno per problemi di air quality e quando si vede la metodologia è una stima bassa. Si pensa che sia molto più alta in realtà. Dunque, questi co-benefits volevamo sottolinearli, ci sono forse potrebbero essere presentati in un modo più prominente ma ok e per noi il grossissimo problema era ecosystem services. Questo era completamente out nei draft. Dunque, qual è la visione della commissione con un'influenza molto forte di dg agri ovviamente. Loro parlano di land use and agriculture. però guarda il linguaggio: land use si dimenticano si dimenticano. Dunque, ti parlano sì ecosystem molto importanti però si dimenticano, per loro la terra deve essere usata per carbon sink, per un modo produttivo per agriculture. E si dimenticano che adesso 50% delle emissioni antropogeniche sono sequestrate dalla natura, oceani, boschi ecc. 50% però sappiamo che questo si sta degradando e questo in tutta la modellizzazione in tutta l'analisi si considera ok, questo non è un problema perché comunque viene assorbito però sappiamo che stiamo degradando tutti questi ecosistemi e dunque noi vogliamo sottolineare che la prima priorità doveva essere ecosystem preservation and restoration and enhancement e questo messaggio non passava. E loro ti dicono sì ma nella modellizzazione land use land change viene incluso. Però sono dimensioni diverse ad un certo punto non se nella versione finale dello staff working document dicevano 20% del territorio europeo non viene utilizzato quindi possiamo piantare alberi che assorbono. Questa è una cosa completamente assurda perché 20% prima stai includendo terre che sono al di là di 2000 metri che vuoi fare lì. Terre che sono state abbandonate dall'agricoltura perché non erano cioè produttive sono produttive fertili ecc. però questi prodotti hanno un prezzo di mercato troppo elevato. In Spagna molto spesso il campo coltivi agricoltura in terrazza, alla fine stanno abbandonando perché c'è un'agricoltura più industriale che abbassa tutti i prezzi per questi agricoltori non vale neanche la pena con i sussidi della PAC produrre questa frutta verdura che è buonissima. Quindi immagina lì mettere alberi per assorbire il CO2 chi si prende cura di questi alberi è ridicolo, non ha meno valore aggiunto economicamente e poi non si rendono conto quando dicono queste cose che ci sono sistemi che non possono avere più alberi. Io sono della [...], se vai in [...] nella zona fra [...] questo paesaggio con qualche albero, i tori, ecc. lì ci sono pochi alberi perché fa molto freddo in inverno molto caldo d'estate e non c'è acqua dunque si sono adattati da centinaia migliaia di anni, l'ecosistema è così perché non può esserci niente altro. Si vede che manca ancora questa visione della natura come natura e quindi il linguaggio è fondamentale no? Parlando di natural resources, non parlano di nature o di environment e questa è una cosa che forse noi come dg abbiamo fatto male storicamente, non abbiamo fatto una pedagogia con i colleghi delle altre dg per sottolineare l'importanza della natura, l'importanza intrinseca della natura. Dunque, sì alla fine almeno quando parlano

di natural resources almeno alla fine c'è un paragrafo che parla di questo restoration ecc che è fondamentale.

Q. Posso chiedere una cosa? Se vi occupate anche di ecco parlando di land use anche di siti minerari attività estrattiva e i danni.

A. Non è sotto il mandato della DG Env o è un po' indirettamente per esempio ogni attività economica di questo tipo deve avere un impact assessment, un environmental impact assessment, se è vicino ad una zona protetta natura 2000 devono fare un impact assessment ancora più dettagliato. Dunque, non è noi non lavoriamo direttamente su quello questo sarebbe piuttosto DG Grow però ci sono regolamenti o norme ambientali che devono essere rispettate. Soprattutto l'impact assessment ecc. e poi noi difendevamo quello che ho spiegato prima il ruolo dei cittadini di cambiare il lifestyle. Dunque, il nostro bilancio come DG Env è abbastanza positivo, tutto quello che abbiamo chiesto è lì in un modo più o meno chiaro però almeno lo puoi ritrovare.

Q. Posso chiedere che cosa viene racchiuso nel lifestyle?

A. Questo non è molto chiaro, devo guardare la versione finale dello staff working document.

Q. Comunque è nello staff working document.

A. Sì sì sì, poi hanno fatto non so quello che è nel draft che ho letto, non è molto chiaro come lo hanno messo nella modellizzazione dunque ad un certo punto parlano per esempio del trasporto, che se abbiamo più video conferenze ecc. si possono limitare i viaggi di lavoro ecc. noi dovremmo essere un esempio e non lo siamo.

Q. Anche nel mondo dell'università, c'è questa conferenza, il paper qui in America ecc.

A. Qui i colleghi viaggiano tutto il tempo siccome siamo SDGs, riunioni a New York, in Canada e che ne so South africa viaggiano moltissimo alcuni colleghi, dunque questa è una cosa che se non diamo l'esempio noi come Commissione. Dopo si parla da verificare sul cambio di alimentazione però anche questo è un po' un tabù immagini che la pressione della DG agri e degli agricoltori che si deve mangiare meno carne, sì non viene bene accettato, però questo si deve verificare i dettagli della versione finale. Però queste erano le nostre priorità cioè qui noi siamo convinti che deve'essere questo cambiamento di lifestyles con gli ecolabel ecc. Poi stiamo finanziando programmi di nazioni unite su sustainable consumption and production patterns ecc. Cioè anche gli SDG vanno in quella direzione. Dunque, questa è la situazione attuale, sempre come DG env per fare un riassunto generale vedere queste connessioni come cambiamento climatico e natura soprattutto dire state attenti che questo può avere implicazioni positive o negative per la natura.

Q. Comunque se possi dire anche cioè per esempio cosa che ho notato qua in Belgio poi io vabbè vivo in Galles quindi posso portare l'esempio di lì. L'ecolabel una volta che poi è

nelle mani della grossa distribuzione quindi supermercato Delhaize prezzi altissimi, quindi lì il consumatore...poi può essere bio ma se è bio e viene dall'Italia ha viaggiato.

A. A volte qui in Belgio viene dall'argentina quindi bio.

Q. E ho notato per esempio che qua spendo di più rispetto al Galles dove comunque Regno Unito il costo della vita è caro potrebbe assomigliare a quella del Belgio piuttosto che a quella dell'Italia, perché vado dai contadini e gli allevatori diretti quindi non c'è imballaggio passaggio alla grande distribuzione e quindi quello vanno direttamente. E sono bio perché è organic farmers market.

A. Sì sì ma questo, è un problema c'è tanta confusione con l'eco label, a livello europeo ci son tanti altri che non sai come vengono gestiti, dunque c'è un po' di caos intorno ed è vero che uno dei grossi problemi del cambiamento climatico è che l'agricoltore dipende dalle reti di distribuzione che fa i prezzi, cioè il valore aggiunto dell'agricoltore è minimo e quello che paghiamo alla fine è questo trasporto supermercato che fa una pressione per abbassare il prezzo del produttore dunque si vedono sempre di più più agricoltori e viticoltori che cercano un mercato piccolo locale o un po' più elitista a livello economico. Però tante volte non hanno neanche l'eco label non sono bio anche se sono bio. Io sono di [...] e cioè c'è ancora un mercato locale e sono gli agricoltori locali che arrivano dunque io so compro sempre nello stesso posto so che mi stanno vendendo è buono lo fanno loro e me lo portano.

Q. Sì però noi veniamo da terre che tradizionalmente.

A. Però pago di più

Q. Però vedo che il Regno Unito che ha una diseducazione alimentare unica, poi loro hanno tanti allevamenti intensivi, però lì anche nelle scelte l'allevatore locale che ha non ha allevamento intensivo, l'agricoltore locale che ha il suo orto ci sono queste soluzioni e i prezzi non sono alti, invece qua in Belgio, vabbè questo non è neanche per il dottorato, mi sto perdendo.

A. No però è una cosa importante legato una cosa. Parlando di questi ecolabel che stiamo facendo, noi con la DG fisma e che c'è anche nella comunicazione questo sustainable finance taxonomy.

Q. Quindi quando si parla di sustainable finance che io a volte non capisco, è sustainable per chi o per cosa?

A. Questo te lo spiego adesso. Questa è stata una comunicazione l'obiettivo ancora una volta è di trasparenza, di definire gli investitori possano investire su prodotti sostenibili, prodotti servizi settori sostenibili e ancora una volta come l'eco label c'è tanto caos. Ci sono dei green bonds ma non sai come esattamente perché sono green e non c'è nessun controllo. Dunque, la commissione qualche mese fa ha deciso di lanciare questa iniziativa politica e il primo

lavoro che si sta facendo è la taxonomy che è una classifica, sono dei criteri per diversi settori, prodotti, sono piuttosto prodotti che cosa si può considerare più sostenibile, dunque per il momento si comincia con tutto quello climate che ha un'analisi un po' più dettagliata. E dunque questa è l'idea che i prodotti finanziari potranno avere un label, questo è un green investment però con delle regole chiare, questo si viene presentato nella strategia come una cosa fondamentale dunque in realtà vedi ci sono diverse dimensioni di azione della commissione o delle istituzioni una è legislativa Renewable Energy Directive, fissa le norme devono essere rispettate fissa obiettivi.

Q: Domanda, se non sono rispettate, si finisce alla European Court of Justice.

A: Buona domanda questo è importante anche, se qualche norma esempio air quality non viene rispettata la Commissione lancerebbe un procedimento di sanzione, di ricerca di analisi e di sanzione, che poi può essere contestato dallo stato membro e alla fine può finire alla court of Justice. Cosa succede? Che per questi temi dell'ambiente siccome la commissione è una political commission, l'ambiente non è una priorità, ci sono stati pochi pochi casi, per esempio la air quality ci sono tantissimi casi che sono pronti a essere lanciati come, però non c'è questo coraggio politico di lanciarli sotto questa commissione. Però il lavoro della commissione sarebbe la Commission ha il diritto di iniziativa però è anche il guardiano dei trattati, dunque abbiamo l'obbligo di far rispettare quello che c'è dentro i trattati. Però questo anche perché è una Commissione con tanti problemi, Brexit, la crisi ecc., ovviamente questi processi di sanzione non sono la priorità. Però questa è una prerogativa della commissione che si dovrebbe fare più spesso. Dunque dicevo come politiche ci sono queste più legislative ,prescrittive, politiche più di informazione fare eco-labels e poi una politica di comunicazione che non so se lo facciamo bene o male però speriamo che la comunicazione presentata ieri abbia un impatto almeno fissa chiaramente se io sono un investitore sto pensando chiaramente di produrre energia qui cosa faccio? Carbone gas o eolico? Logicamente se vedo che la Commissione mi dice che fra 30 anni devo dimenticarmi del gas ecc. andrei piuttosto all'eolico solare ecc., o anche quando parla di tecnologie che non sono ancora pronte come Carbon Capture and Storage, idrogeno ecc., quando c'è un messaggio forte guardate che questo si dovrà usare perché altrimenti non ce la facciamo logicamente ci dovrebbero essere più investimenti di ricerca e deployment ecc. dunque questo fa parte del gioco politico. Poi un'altra priorità che avevamo era i SDG che non erano neanche menzionati però la cosa buffa è che quando si le priorità che venivano presentate alla fine praticamente alla fine erano gli SDG, fight against poverty, ecc.

Q. Sì certo social economico ambientale.

A. Dunque adesso sì che vengono menzionati, ovviamente, perché ovviamente c'è una connessione chiarissima.

Q. Ma SDG dal punto di vista ambientale non c'è nessun, non si fa riferimento al Paris agreement.

A. C'è un SDG che è climate action che è il Paris agreement però poi ci sono tanti sull'acqua, aria, ecc. ambientali sociali e una cosa interessante del rapporto dell'IPCC e che fanno un'analisi e dimostrano, c'è una tabella molto bella si vedono i trade offs e le sinergie e dunque si vede la parte positiva è così e la parte negativa è così. Dunque, chiaramente se si seguono gli SDGs l'impatto sarà molto più positivo che se non si seguono e questo lo dimostra l'IPCC. Dunque, secondo me l'analisi dei colleghi ancora una volta dimostra la stessa cosa perché le priorità sono gli SDGs.

Q: E adesso che ci sarà la nuova commissione?

A: Buona domanda, perché abbiamo visto questa commissione, l'ambiente non è una priorità il cambiamento climatico l'energia sì, gli SDGs sono venuto un po' dopo e sì ci sono dei commissari molto coinvolti, il vicepresidente Timmermans ecc. Per cosa succederà prima, cosa succederà nelle elezioni, no perché finora nella storia dell'Unione Europea era sempre il partito popolare europeo che aveva il controllo con i socialisti facevano questo accordo. Adesso non sappiamo cosa succederà dunque ci saranno partiti più...gli euroscettici che prenderanno più voti logicamente, ci possiamo aspettare così e dunque che accordi ci saranno fra i grossi partiti non lo sappiamo perché sai che c'è un candidato di ogni gruppo che per esempio il partito popolare europeo con questo signore tedesco molto conosciuto e se vince il partito popolare europeo fanno un accordo con altri gruppi e questo signore sarà il presidente della commissione. Dunque, c'è già lì un controllo politico, però vedremo, chiaramente una cosa che si vede adesso, è sempre più controllo dalla Germania dalle istituzioni in generale e dunque ci sono diversi posti di potere che sono tedeschi.

Q. Che non è neanche una novità è da sempre.

A. Però è molto più chiaro adesso e dunque alla fine anche se i commissari, come noi personale della Commissione dobbiamo difendere gli interessi dell'unione europea non di un paese però alla fine si vede l'influenza in certe cose per esempio se torniamo al cambiamento climatico la Germania è il paese che sta facendo più emissioni che ha ancora tanto carbone. Dunque possiamo immaginare che a seconda di chi avrà il potere la transizione sarà più radicale o meno, l'abbiamo visto in Spagna che con il cambiamento di governo da un estremo che era praticamente la Spagna e la Polonia i paesi che volevano meno renewables, siamo passati all'estremo opposto, alla ministra dell'ambiente della transizione ecologica, già interessante transizione ecologica, all'energia cambiamento climatico e

ambiente insieme, è molto coinvolta. Possiamo immaginare presenteranno fra poco un action plan una strategy di decarbonizzazione. Dunque, tutto dipenderà dalle elezioni, non lo sappiamo. E poi un momento chiaro tu che hai anche una cosa quando si guarda poi il linguaggio in questo caso è la struttura. A seconda della struttura dei commissari e delle DG si saprà che cosa è prioritario o meno, dunque si parla energy with climate, secondo me non sarebbe una buona idea o climate with environment.

Q. A livello di DG, dice.

A: Sì sì sì sono possibilità. Questo ovviamente nessuno lo sa, neanche Juncker. Dipenderà dalle decisioni politiche, ovviamente sempre si pensa alle diverse combinazioni. Questo per la tua ricerca potresti vedere un po' come si è evoluta la struttura e come è andato avanti in diversi dossier. Storicamente climate e environment erano insieme fino a un certo punto che sono stati separati.

Q. Che io sappia DG clima da sola è recente, con Barroso.

A. Con Barroso due, era diverso. All'inizio penso che erano ancora insieme, questo si dovrebbe parlare con un collega con un veterano. Dopo una cosa importante ma di questo ne avrai parlato con RTD, nel cambiamento è il ruolo della ricerca, su questo campo ha un ruolo importantissimo. E lì anche l'Unione europea è molto importante perché sta finanziando l'IPCC, ci sono tantissimi progetti di ricerca sul cambiamento climatico, che ti danno il contenuto dei rapporti IPCC, cioè per il rapporto l'ultimo il 5 era no? C'erano se non mi ricordo male erano circa 1000 riferimenti a progetti finanziati dall'UE e alla fine questa è la base teorica di tutta questa policy. E in questo campo del cambiamento climatico è molto chiaro. Noi Commissione pretendiamo che facciamo evidence-based policy ma a volte il commissario decide e si fa una cosa per soddisfarlo. Però in questo caso del cambiamento climatico direi che è molto forte il rapporto con la ricerca. Tutta questa ricerca sul cambiamento climatico è fondamentale a livello globale anche a livello globale e a livello europeo. Dunque, l'IPCC a livello globale è stato... poi l'IPCC anche a livello globale 20 anni fa si parlava già di cambiamento climatico ma tantissimi dicevano "non ci credo". Oggi Trump che dice non ci credo è come dire che la terra è piatta e l'universo gira intorno alla terra nessuno lo prende sul serio. Quindi è stato un cambiamento anche psicologico nella gente che è stato anche il ruolo della ricerca.

Q: Posso chiedere? Perché l'UE finanzia l'IPCC, poi ha la sua Research and Innovation, ha il JRC che fa proprio ricerca.

A. E tante volte sono citati dall' IPCC anzi quelli che scrivono, i pen holders diciamo, sono il JRC. Cioè il JRC è a livello internazionale un centro molto riconosciuto.

Q. Sì però non è un centro di ricerca credo ma sono vicini a Juncker, l'Epsc, non sono riuscita a capire.

A. Sì l'ex Bepa l'Epsc. Questi sono una sorta di task force, è sempre esistito prima si chiamava il Bepa e sono una sorta di task force che lavora direttamente per il presidente Juncker, dunque gli consigliano diverse cose, hanno una visione generale anche su tendenze sul futuro sono a volte non direi futurologi però hanno una concezione del foresight che non è male. E in questa strategia [...] ha una visione forse un po' troppo generale però di futuro no dove andiamo. E dunque lui aveva spinto molto in questo interservice group per non basare tutto sulla modellizzazione, alla fine la modellizzazione è stata importante però di avere uno spirito più aperto. Perché il lavoro tradizionale di clima è stato modellizzazione, questi sono i risultati e basta. Secondo me nel risultato si sente si parla del ruolo dei cittadini le città non è solo tecnologia dunque forse non so se lui era soddisfatto al 100% con il draft precedente perché ha fatto qualche commento in riunione un po' critico però hanno questo ruolo vicino a Juncker che per me dopo non so come funziona day to day questo te lo dovrebbe dire lui, mi piacerebbe saperlo sinceramente. Sì, poi lui poi all'inizio la circular economy questi colleghi di DG clima e DG Ener non lo vedevano, ah but we cannot model this ecc. Lui ha insistito molto e ha avuto un'influenza per metterci d'accordo con Grow e fare più pressione.

Q. Ah ok quindi ha avuto questo ruolo positivo di lungimiranza.

A. Ed è un tipo che pur essendo vicino al presidente non se la tira. dopo non so cosa succederà con la prossima commissione, il Bepa prima secondo me non facevano un granché. Poi dunque a parte questo processo più a livello amministrativo ci sono ci sono le riunioni come si chiama del project team che sono i commissari. Dunque praticamente tutti i commissari che sono coinvolti sull'energia e cambiamento climatico in un modo o nell'altro fanno una riunione e il chair che è Sefkovic che è il vice presidente per la energy union. Dunque, ogni Commissario presenta le priorità delle sue DG cioè dei suoi servizi nel nostro caso anche con DG mare una delle priorità di Vella che all'inizio non c'era nella Commissione e anche il potenziale degli oceani no? E dunque è lì che si prendono le grosse decisioni ovviamente non è nelle nostre riunioni. Lì si prepara tutto il terreno però la decisione importante importantissima fra i Commissari dunque questa è una cosa che secondo me è molto importante da dire. Quindi io ci sono andato una volta è un'esperienza interessante perché ogni commissario presenta il suo discorso priorità ma molto brevemente in 5 minuti ovviamente prima c'è stata una presentazione di Miguel Arias Cañete più lunga in questo caso perché doveva presentare la strategia, e dopo si parlano, non c'è stata una decisione chiara faremo così ma si capisce che ok si deve avere un consenso. Dunque, per esempio

nella comunicazione finale ci sono cose che erano state dette da alcuni di questi commissari che all'inizio non c'erano. E io voglio pensare che la decisione è stata presa da loro e poi nel gioco dei gabinetti che io immagino che lì nel Berlaymont bevono caffè insieme e discutono non questo per noi è molto importante ecc. Però dopo la decisione finale del rapporto finale quello che chiamano special chefs meeting che è a livello dei gabinetti, dunque i gabinetti rappresentano il loro commissario e decidono ok lanciamo questo. C'è un gioco a livello di gabinetti che io non controllo molto perché non ho mai lavorato lì però forse sarebbe interessante se parli con [...] che è al gabinetto di Vella, che ha seguito i dossier e ti può parlare di queste parti interne.

Q: Quindi è qua dove si decide alla fine.

A: Sì io penso di sì. E dopo immagino che fra i direttori generali si chiamino, guarda che non avete messo questo. Non so veramente come funziona. Questo per esempio una delle assistenti del nostro direttore generale era sempre in copia in tutte le mail. Quindi sono convinto che a un certo punto fa una telefonata, si conoscono tutti, prendono un caffè una birra e dicono guarda qui ecosystem services, circular economy, quindi c'è un gioco lì che non capisco però secondo me è interessante.

Q: Va bene grazie non ho altro da aggiungere. Grazie.

Interviewee 15 (30/11/2018)

Q. Allora, vorrei sapere come prima domanda se lei potesse presentarsi per spiegare esattamente di cosa si occupa all'interno del JRC. E poi parlerei di più del Jrc in quanto DG all'interno della Commissione, però separatamente ecco.

A: Allora io sono responsabile di un gruppo che si occupa di LULUCF. LULUCF è un acronimo che sta per land use change and forests. E ho un gruppo di circa 6 persone che lavorano con me qui al JRC a [...]. E con questo gruppo ci occupiamo sia di inventari di gas serra che di modelli che stimano l'assorbimento delle emissioni di CO₂ da parte delle foreste. Allora parto con il primo aspetto degli inventari di gas serra, non so se sai che ogni paese che emette nel merito della convenzione ONU sui cambiamenti climatici UNFCCC deve redigere degli inventari per i paesi sviluppati su base annuale.

Q. Ok non sono gli NDC.

A. No non ancora questo è un passo così alla base prima degli NDC. Sono degli inventari di gas serra quindi ogni paese deve redigere un inventario di quelle che sono le emissioni, gli assorbimenti di gas serra in tutti i settori, l'energia, i trasporti agricoltura e foreste o settore LULUCF, soprattutto assorbimento /rimozione di CO₂ da parte delle foreste. Ci sono anche

altri usi del suolo come la CO₂ dalle aree agricole, però i grossi flussi sono dalle foreste. E per quello con l'altra parte del gruppo ci occupiamo di modelling della crescita forestale e di quanto le foreste assorbono anidride carbonica in funzione di vari scenari. Questo è un po' quello che facciamo. Nell'ambito del JRC che forse già lo sai il JRC è l'arma scientifica, il branch scientifico della Commissione europea. Cioè è quella parte della Commissione europea che dà supporto tecnico scientifico laddove ce ne sia bisogno per lo sviluppo monitoraggio implementazione delle politiche europee e quindi noi lavoriamo in stretta collaborazione con la direzione generale climate action per quanto riguarda il monitoraggio delle emissioni ma anche lo sviluppo di politiche nuove. recentemente negli ultimi 2 anni abbiamo lavorato molto per un nuovo regolamento per includere il settore forestale quindi questo settore LULUCF negli obiettivi climatici dell'unione europea 2030. Tu lo sai che l'UE ha deciso di ridurre le emissioni del 40% entro il 2030 rispetto al '90. Questo è stato regolamentato per tutti i settori, mancava il settore forestale quindi adesso le foreste, ci sono delle regole di conteggio molto complicate sono lì dentro. C'è molto lavoro da fare perché questo settore LULUCF è più complicato degli altri settori, perché mentre negli altri settori ci sono solo emissioni è tutto chiaramente antropogenico, se tu riduci le emissioni lo puoi conteggiare come mitigazione. Nel settore forestale è tutto più complicato perché la CO₂ viene assorbita dalle foreste, fa parte di un ciclo naturale che viene perturbato dalle azioni umane è molto difficile dire quanto delle emissioni quanto degli assorbimenti siano dovuti all'azione umana o no. il concetto di mitigazione per il settore LULUCF è molto più complicato che per gli altri settori, è molto controverso.

Q. Infatti sì non capivo come viene collocato poi all'interno del processo politico insomma l'ETS.

A. Sì all'interno del processo politico è sempre stato considerato un po' a parte perché era tutto molto più complicato degli altri settori, è più complicato fare le stime, è più complicato dire che quanto di quello che viene stimato è dovuto all'azione antropica e quanto no. Quindi per ora è sempre stato trattato, per usare una metafora, è sempre stato trattato come cenerentola che era un po' esclusa dal ballo della mitigazione. Con gli accordi di Parigi c'è stato un po' un cambiamento, nel senso che i paesi se vuoi ci sono anche degli articoli scientifici che ti posso dare che abbiamo scritto, ci sono gli inventari storici che sono quelli che ti dicevo prima che descrive un po' che esprime un po' l'impegno che ogni paese si è preso nell'ambito degli accordi di Parigi, e in questi impegni che finora sono al 2030, i paesi soprattutto quelli in via di sviluppo hanno posto un grande accento una grande attenzione sulle foreste includendo soprattutto la questione della deforestazione tropicale ma anche l'assorbimento di anidride carbonica da parte delle foreste. Dopodiché gli accordi di Parigi

hanno questo obiettivo ambizioso dei 2 gradi o dell'1.5 ancora più ambizioso. Per raggiungere questo bisognerebbe raggiungere un balance between emissions and removals in the second half of the century, non so se hai già sentito questa terminologia. Quindi bisogna raggiungere un equilibrio tra emissioni e assorbimenti a livello globale nella seconda metà del secolo. Questo è molto difficile soprattutto richiederà ancora un maggior contributo da parte delle foreste perché non tutte le emissioni non si possono alterare in tutti i settori così come le emissioni dell'agricoltura, le emissioni di metano, di N₂O, non possono essere portate a zero per motivi fisici biologici perché o non si allevano animali o se no queste emissioni ci sono, quindi tutte queste emissioni dovranno essere compensate con assorbimenti da parte delle foreste. Insomma, detto questo il settore forestale con gli accordi di Parigi è diventato più rilevante di quanto non lo fosse prima. Ci sono ancora problemi che ti dicevo prima, cioè molte incertezze nelle stime, perché tutto è molto più complicato che negli altri settori per il ciclo biologico e le incertezze riguardo a quante di queste emissioni possano essere di origine antropica. Con qualcosa che come le foreste nei cambiamenti climatici è considerato importante per dirti non so se sai un po' i numeri ma nel ciclo globale del carbonio, soprattutto quello che emettiamo noi nell'atmosfera solo circa metà rimane nell'atmosfera solo il 25% viene assorbita dagli oceani e il 25% viene assorbita dalle foreste, in modi in parte naturali in parte per azioni ulteriori. Quindi le foreste sono essenziali nei cambiamenti climatici, in qualsiasi strategia di mitigazione però a volte è molto complicato conteggiarle in modo comparabile agli altri settori. Per questo nel regolamento LULUCF che abbiamo appena finalizzato all'Unione europea abbiamo cercato di includere le foreste con modalità che siano credibili fondamentalmente e adesso le differenze sono incluse praticamente come gli altri settori, hanno delle regole più complicate, dei limiti più complicati però sono inclusi come gli altri settori. Quindi se dimostri che con la gestione forestale amplia le foreste o diminuisce la forestazione, con la gestione forestale aumenta il carbonio accumulato nelle foreste oppure anche con le pratiche agricole fare in modo che il suolo assorba più di CO₂, allora tutto questo si può conteggiare per il target, quindi le foreste possono dare un contributo al raggiungimento del target a livello europeo nel 2030. E soprattutto se invece le foreste alla fine diventeranno di più queste maggiori emissioni dovranno essere compensate dagli altri settori, quindi se le foreste non assorbono quanto ci si aspettava, allora il settore energia agricoltura e altro dovranno dedurre di più.

Q: Ok però quando si parla di foreste poi con tutto il problema deforestazione riforestazione, vi occupate, cioè fate il calcolo.

A. Sì sì sì noi qui nel mio gruppo ci occupiamo soprattutto dell'ambito europeo e ci sono altri qui al JRC che si occupano molto di monitoraggio della deforestazione con immagini

satellitari della deforestazione tropicale che è un elemento importante di emissioni. Nel mio gruppo ci occupiamo soprattutto a livello europeo.

Q. Ok se posso chiedere, allora voi come JRC avete un po' di basi un po' a Ispra un po' a Siviglia, anche in altre città ecc. e siete a tutti gli effetti una DG della commissione. Però non ho capito non siete una policy DG.

A. No nel senso che le policy dg sono praticamente tutte le altre, per noi loro sono i nostri customer, quindi quando loro hanno bisogno di questo e quest'altro noi nel limite del possibile cerchiamo di farlo.

Q. Quindi le domande però le pongono le policy DG.

A. Le domande le pongono le policy DG infatti noi cerchiamo di dare supporto tecnico per implementare questo.

Q. Ok posso chiedere se è un limite?

A. È un limite rispetto a cosa? Libertà di ricerca o cosa?

Q. Sì perché loro definiscono i parametri nel senso del discorso e poi chiedono a voi in modo tecnico aiutateci.

A: Sì allora potenzialmente ci possono essere, però in pratica io personalmente non li ho mai riscontrati. Altrove so che ci sono delle discussioni il problema può essere quello che dicono gli scienziati. Il ramo scientifico della Commissione europea è in contrasto con le politiche della Commissione europea. Questo occasionalmente in passato può essere successo. Personalmente a me no, quello che finora ho osservato è che mediamente la commissione europea cerca di basare le politiche su quelle che sono le diverse (Incomprehensible, Ed.) e su questo cioè ci possono essere eccezioni ovviamente comunque ci possono essere vari modi varie prospettive per lo stesso problema. a comunità scientifica fa più attenzione a certe cose il livello politico fa più attenzione ad altro. Però in generale affermo con certezza che mediamente le politiche dell'Ue sono basate su robuste evidenze scientifiche laddove è possibile, poi ci possono essere dei contrasti che però vedo in modo abbastanza fisiologico non li vedrei come qualcosa di strutturale, il fatto di poter vedere diverse prospettive sullo stesso problema. Poi ovviamente intorno alle politiche ci possono essere interessi lobby varie economiche ecc. Però ecco almeno nell'ambito dei cambiamenti climatici per ora posso dire per ora che nel mio ambito la commissione europea ha difeso finora quelle che sono le evidenze scientifiche e le argomentazioni scientifiche. Poi non sempre a volte prevale il dibattito politico, che poi alla fine la commissione europea fa delle proposte legislative, ma le decisioni le prendono gli stati membri e il parlamento che magari diluiscono il contenuto di certe azioni legislative

Q: Ho capito. Ma voi partecipate proprio al processo di negoziazione interna della commissione?

A: Sì sì anche se non negoziamo noi direttamente, però seguiamo con molta attenzione questa fase del regolamento LULUCF sono andati a più di 30 riunioni con gli stati membri, con il parlamento europeo per spiegare dettagli tecnici ecco e questa è una legislazione un regolamento molto tecnico e praticamente c'era un dialogo continuo fra noi e la direzione clima e loro magari mandavano indirizzi politici su quelle che erano le nostre osservazioni. Però quando bisognava spiegare gli aspetti tecnici molto importanti c'eravamo noi. Ecco noi non siamo in prima linea in negoziazione ma diamo così evidenze elementi tecnico scientifici per la negoziazione. Dipende molto dai dossier, più il dossier è tecnico scientifico, più il ruolo del JRC è importante.

Q: Certo perché va tradotto come materiale più accessibile. Quindi voi come Jrc fate ricerca scientifica, però poi c'è la DG Research and Innovation, che però è una policy DG se non ho capito male. Però quella commissiona al di fuori della commissione stessa, no? Cioè finanzia altri studi altri centri di ricerca.

A: Sì finanzia progetti di ricerca per l'università, a questi progetti di ricerca può partecipare il JRC, adesso il ruolo del JRC cambierà un po' in futuro, però partecipa anche il JRC, il JRC è in una posizione un po' particolare perché noi facciamo ricerca al servizio dei policymakers, quindi non siamo una libera università, il JRC non può studiare il fiore del pisello se non c'è una richiesta politica dietro ovviamente. L'università può farlo più in molta libertà perché possono fare ricerca pura di base. Il DG RTD finanzia vari progetti di ricerca, di base, applicata e quindi è un dg separata dal JRC da questo punto di vista nel senso che finanzia, l'obiettivo è quello di finanziare seguire la ricerca europea in quanto tale.

Q. Ho capito, adesso mi è più chiaro. Invece per quanto riguarda il Jrc fa anche parte dell'IPCC. Dunque, l'IPCC è un organismo internazionale e si occupa di cambiamenti climatici. Alcuni scienziati del JRC che fanno parte di rapporti dell'IPCC perché l'IPCC periodicamente fa parte di rapporti di analisi sullo stato del clima, rapporti fra clima e oceani clima e land e foreste ecc. quindi io per esempio in questo momento sono in 2 di questi rapporti dell'IPCC. Non siamo in tanti al Jrc a seguire queste cose qua, però il JRC però scienziati del JRC sono autori di rapporti dell'IPCC, non è il JRC come istituzione. Sono gli scienziati che partecipano a questi rapporti IPCC.

Q. Beh sì è un pannello intergovernativo questo sì, e poi volevo sapere come JRC alla COP. Ci siete?

A. Io sono alla COP, vado lì giovedì prossimo io in passato sono sempre stato a tutte le COP, negli ultimi 10 anni per vari motivi soprattutto in passato ho seguito le negoziazioni perché

c'erano degli aspetti tecnici scientifici su questo settore chiamato LULUCF che necessitavano di un supporto tecnico scientifico ed ero lì per supportare la Commissione europea ma anche gli stati membri.

Q. Ok di supportare nel senso di fare dei briefing, cioè non sedete al tavolo delle negoziazioni.

A. Sì fare le analisi. No, non ci sediamo mai al tavolo delle negoziazioni noi. Noi stiamo al massimo la fila dietro a dare i numeri in particolare tutto ciò che ha a che fare con foreste e clima, allora alla fine bisogna quantificare le cose bisogna dare dei numeri, io sono quello che digeriva e distribuiva i numeri fondamentalmente, i numeri per paesi, i numeri a livello globale facciamo delle analisi per dire ogni negoziazione si basa di fatto su dei numeri e le analisi dietro le facciamo noi. Quindi comunque un ruolo importante. Poi ci sono i side events che sono degli eventi che sono comunque a carattere scientifico che sono rivolti a negoziatori scienziati la società civile in generale si presentano specifiche tematiche. Io venerdì prossimo avrò 3 presentazioni in un giorno su foreste cambiamento climatico come ruolo delle foreste nella mitigazione ecc.

Q. Un'ultima domanda per tornare alla commissione i vostri studi sono commissionati da quali DG, DG clima con cui lavorate a stretto contatto, anche altre DG per caso? Ambiente, energia, crescita.

A. Sono commissionati soprattutto da clima, clima di solito è chef de file responsabile dei filoni politici di cui ci occupiamo, sì ambiente energia ed agri anche sono altre dg rilevanti per noi.

Q. Quindi voi avete partecipato attivamente all'elaborazione di questo report che è uscito ieri, la strategia a lungo termine.

A. Sì personalmente ho fatto una serie di commenti controlli non sono dietro i numeri perché queste sono proiezioni fatte dal gruppo JRC di Siviglia anche lo IASA e anche altri istituti europei perché poi alla fine ognuno ha i suoi settori di competenza, però sì sì è una cosa che abbiamo seguito da vicino.

Q. Ok va bene perfetto. Grazie

