The London School of Economics and Political Science

Learning in Governance: The Role of Policy Entrepreneurs in European Climate Policy Integration

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Declaration

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I confirm that Chapter 3 was jointly co-authored with Dr. Richard Perkins and I contributed 80 per cent of this work.

Abstract

Learning is frequently regarded as facilitating factor for policy outcomes across multiple levels of governance. Learning however competes with alternative explanations such as bargaining, actor's interests and organisational objectives. This thesis examines from an institutional perspective the link between individual learning of policymakers and learning among governmental institutions and analyses to what extent learning matters for the policy outcome. It finds that policy entrepreneurs play a key role in transferring learning to the organisational level and in achieving policy outcomes.

The empirical focus is on learning in climate policy integration, which carries increasing importance for effective environmental governance as it can help create synergies for economic development and climate mitigation. The European Union is a frontrunner in integrating climate objectives into energy, transport and agriculture policy via regulatory instruments setting overall targets and conditioning financial resources upon compliance. This thesis uses qualitative methods to examine learning in the policymaking aspects of climate policy integration at the examples of the Renewable Energy Directive, its controversial biofuels component and the greening measures in the Common Agricultural Policy.

This research makes several original contributions to the agency aspects of environmental governance: the meta-theoretical framework on learning allows a more nuanced analysis of what learning aspects occur in governance such as knowledge- and experience-based learning versus changes in different types of underlying beliefs. It also allows determining the extent to which a policy outcome results from learning or alternative explanations. This contribution clarifies the under-researched link between the learning individual, changes in beliefs and the factors hindering learning from being transferred to the organisational level where policy decisions are made. Policy outcomes resulted predominantly from policy entrepreneurs using previously acquired knowledge and experience to achieve a policy outcome aligned with their pre-formed deeper beliefs and policy objectives. Overall, the thesis provides a fresh perspective on the relevance of learning in the policymaking process and of bureaucrats as policy entrepreneurs.

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Abbreviations

CAP	Common Agricultural Policy
COREPER	Committee of Permanent Representatives
Council	Decision making bodies of the Council of the European Union, including European Council (heads of states), Council of Ministers and Council Working Groups consisting of technocratic experts and civil servants from the national Permanent Representations to Brussels and the member states' ministries responsible for the respective policy area
CPI	Climate Policy Integration
DG Agri	Directorate General for Agriculture and Rural Development
DG Clima	Directorate General for Climate Action
DG Env	Directorate General for Environment
DG Energy	Directorate General for Energy
ENGO	Environmental Nongovernmental Organisation
EPI	Environmental Policy Integration
EC	European Commission
EP	European Parliament
EU	European Union
FQD	Fuel Quality Directive
GATT	General Agreement on Trade and Tariffs
GHG	Greenhouse Gas
HEBDO	Weekly meeting of the Heads of Cabinets at the European Commission
ILUC	Indirect Land Use Changes
IPCC	Intergovernmental Panel on Climate Change
LULUCF	Land Use, Land Use Change and Forestry
MEP	Member of the European Parliament
MFF	Multiannual Financial Framework
RED	Renewable Energy Directive
OL	Organisational Learning
OMC	Open Method of Coordination
UNFCCC	United Nations Framework Convention on Climate Change
WTO	World Trade Organization

Dedication

Für meine Eltern

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I owe a similar debt of gratitude to my mentor Michael Mason for his advice over the past four years and sharing insights into academia. He kindly acted as review supervisor to my PhD thesis. I would like to thank him for offering very detailed and useful comments on my PhD upgrade document and the first draft of this thesis. He provided spot-on feedback on many other pieces of research, starting as supervisor of my MSc dissertation in 2010 on the influence of experts in international climate negotiations (ultimately published by Policy Sciences); the paper on multilevel reinforcing dynamics forthcoming in International Environmental Agreements and in particular the paper on Sustainable Climate Policy Integration in the EU (published in Environmental Policy and Governance), which resulted from involving me in the FP7 Sustainable RIO research project on Sustainable Development in the EU. He not only introduced me into the academic community on Global Environmental Governance, he also offered much appreciated advice over the years on teaching global environmental governance, marking coursework/ exams and supervising undergraduate dissertations.

In a way, the EU focus of this thesis originates from my Magister Artium studies in political science at the Ludwig Maximilian University of Munich, where an advanced seminar taught by Professor Werner Weidenfeld on European Integration and my subsequent work on the European Parliament in the Research Group on European Affairs at his Center for Applied Policy Research in 2009 sparked my fascination about policy making in the European Union and my desire to understand what drives the underlying decision-making dynamics among the European institutions.

My friends at William Goodenough College, at the LSE, back home in Bavaria and across the world were always a great source of emotional support and encouragement, making every day special. Thank you all.

Above all, my sincere appreciation and gratefulness goes to my loving parents. I dedicate this thesis to them for their unconditional support throughout my life, enabling me to follow and realise my dreams.

Leeds, 5.2.2014   Katharine Rietig

Chapter 1
Learning in Governance … does it matter?

Policymaking is a human, personal learning endeavour. It is different from working in a sausage factory. It is more like an art.

(European Commission 2012)

Policy changes over time frequently mirror evolutions in societies' political preferences, advances in scientific knowledge and experiences with previous actions, unintended consequences or even catastrophic events. Regional cooperation can be motivated by the prospect of economic prosperity and the hope of reducing negative environmental impacts through collective action. As interests of key actors change, additional knowledge is taken into account or experiences with previous policies are reflected upon, changes in policies can occur and result in further reactions of key actors. These developments could be summarised as learning in the process of governing institutions, rules and practises that frame the (co-)existence of societies. The question is whether policy outcomes are necessarily a result of learning among policy-makers and to what extent they occur independently. The rich literature in public policy on learning as well as the discipline of organizational learning in management studies and social psychology suggest that there is a role for learning in the governance of

societal cooperation as the process of devising rules to support peaceful coexistence and economic prosperity.

This thesis contributes to gaining a fuller picture of the empirical and theoretical puzzle on what determines outcomes in governance and more precisely in the policy-making process. The key question is to what extent learning,[1] which is widely regarded as a facilitating factor, contributes to policy outcomes. Learning can be a result of reflecting on failure (Ravenal 1978) or occur in the form of drawing lessons (Rose 1991) from the policies of other countries that serve as inspiration for policy diffusion (Dobbin, Simmons and Garrett 2007; Gilardi 2010; Perkins and Neumayer 2004). Policy transfer contains more coercive elements such as increasing group pressure among countries at the UNFCCC negotiations to present their domestic climate mitigation and adaptation strategies (Rietig 2014b forthcoming) that point towards elements of policy transfer (Dolowitz and Marsh 1996; Stone 2000) as supplementary explanation for policy outcomes.

Learning can be regarded as an intervening variable among many other factors such as in Steven Bernstein and Benjamin Cashore's (2012) analysis of forest governance, which concludes that "findings regarding learning and its conditions may offer insight into creating greater coherence at multiple levels in complex institutional environments" (Bernstein and Cashore 2012: 604). Overall, learning is frequently regarded as facilitating factor for policy outcomes on multiple levels of governance.

This leads to the central research question:

What role does learning play in public policy-making?

Two sub- research questions are:

(1) How does learning occur in the policy process, i.e. can we analytically differentiate aspects of learning?

(2) Under what conditions does learning matter for the outcome of the policymaking process?

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[1] For a detailed definition, see 2.1.1

In short, this thesis systematically examines how relevant learning is in governance. The central *hypothesis* is that different aspects of learning only occur under certain circumstances, but not as soon as actors communicate or engage in a policymaking process. To transmit individual learning to the organisational level and thus achieve a policy outcome, policy entrepreneurs acting as learning brokers and institutional dynamics are crucial.

There are many relevant contributions in the governance literature, particularly on learning in the European Union. However, as the literature review (chapter 2) will illustrate, there is no comprehensive theoretical framework on learning that would allow to answer the research questions and to investigate the key hypothesis. The link between learning and policy outcomes is rarely systematically questioned in the governance and public policy literature. Although the explanation of learning as policy process or of learning as relevant factor for a policy outcome is convenient due to its positive connotation, it does compete with alternative explanations such as bargaining in negotiations, policy entrepreneurs, actor's interests and organisational objectives (Moravcsik 1993; Rietig and Perkins 2013; Roberts and King 1991).

Learning is particularly relevant in challenging policy areas where individual incentives to enjoy short-term benefits are misaligned with the long-term needs of future generations. Addressing such a global challenge like climate change (IPCC 2013) first and foremost means reducing greenhouse gas emissions while adapting to its unavoidable consequences. Although there are several policy instruments available with the single purpose of reducing emissions such as carbon taxes and emission trading via financial incentives and absolute emission caps (Skjærseth and Wettestad 2009; Wettestad 2009), it is traditional sectoral policy fields such as transport, energy, industry and agriculture that will need to integrate climate objectives into their areas if emission reductions are to be achieved (Rietig 2013) of over 80 per cent from 1990s levels in 2050 (IPCC 2007). Climate policy integration is an emerging policy area with increasing importance for effective environmental governance that can help countries to meet their international climate commitments and further increase ambitions to avoid the most dramatic consequences of climate change (for key contributions see Adelle and Russel 2013; Mickwitz et al. 2009; Nilsson and Nilsson 2005).

This thesis examines from an institutionalist perspective what aspects of learning occurred and whether learning influenced outcomes in European climate policy

integration. The learning process of integrating environmental and climate objectives into sectoral policy areas is seen to provide an important contribution to climate mitigation (e.g. Nilsson and Nilsson 2005; Nilsson and Eckerberg 2007). This literature predominantly focused on learning in the implementation of policies on different levels of governance. However, learning in policymaking has been less widely examined. The EU is a key actor in climate governance due to its strong interest in climate mitigation (Biermann 2005) and its leadership aspirations (Jordan et al. 2010: 77; Schreurs and Tiberghien 2007) which have been criticised as deficient (Jordan et al. 2012: 44) following the Copenhagen 'disaster' (Blühdorn 2011). However, the EU's leadership role can be regarded as restored following the strong and successful push for a post-Kyoto regime with binding commitments from developing countries in exchange for a second and final commitment period of the Kyoto Protocol that was brokered by the European Commissioner for Climate Action at the UNFCCC negotiations in Durban 2011 (Interviews 2011; Rajamani 2012).

Following the rationale provided by Schreurs and Tiberghien (2007) and more recently Jordan et al. (2012), ***this thesis focuses in its empirical analysis of the role of learning in the policymaking process and the importance of learning for the policy outcome within the case study of climate policy integration in the EU.*** The rationale for choosing the EU as geographical case study focus has several justifications. First, the international commitments of the EU "are much more ambitious than other large parties (…) [what is] expected to have an important bearing on the world's efforts to avoid dangerous climate change. Second, its efforts offer governance theorists a range of insights into whether ambitious policies can be produced in multi-levelled political systems (…). [Furthermore,] what happens at the EU level can deeply affect national and local political life across Europe, through processes of emulation" (Jordan et al. 2012: 45-46). These semi-federalist (Nedergaard 2008: 180; Rozbicka 2013: 844) and multi-level governance characteristics (Piattoni 2010), as well as the aspirations for an international leadership role in global climate governance (Schreurs and Tiberghien 2007) that are restrained by the EU's inherent structural inflexibility (Afionis 2010), make the EU with its 28 member states an ideal test case for learning.

A further rationale for focusing on the EU as case study area is the rich empirical literature on learning in policymaking within the EU. Particularly the last decade brought a development of empirical evaluations of learning and the related concept of

policy transfer in areas such as Regulatory Impact Assessment (Radaelli 2004; 2009), the Common Agricultural Policy (Feindt 2010), the Open Method of Coordination (Kerber and Eckardt 2007; Nedergaard 2007) and regional integration (Farrell 2009). A number of studies focus on agency such as Elizabeth Bomberg's (2007) analysis of environmental non-governmental organisations as 'teachers' in the context of European enlargement and Diane Stone's contribution on the transfer of policies in transnational governance including the EU (Stone 2004), as well as Anthony Zito's analysis of agencies as agents for learning in the "numerous potential fora for learning" (Zito 2009: 1221). For these reasons, the remainder of the thesis focuses on the EU as case study area to analyse empirically when, how and why learning occurs in the policymaking process.

The thesis synthesises the learning literature into a coherent meta-theoretical framework of learning (chapter 3), as the literature review results in the conclusion that the literature on learning is dominated by overlapping terminology and thus remains ambiguous on what can, and cannot be regarded as learning (chapter 2). Chapter 4 discusses methodological aspects by explaining the research design and qualitative research methods used for data collection and data analysis to allow reproducibility of the study on other levels of governance and/ or in other sectoral policies.

Chapter 5 briefly introduces the policymaking process in the EU and conceptualises climate policy integration as background for the empirical chapters. The empirical part of the thesis applies the theoretical framework developed in chapter 3 to two case studies using qualitative methods: The Renewable Energy Directive with its controversial biofuels component (chapter 6) and the greening of the Common Agricultural Policy (chapter 7) aim to integrate climate objectives into sectoral policies on the European level. The key findings point towards alternative explanations for learning, which are discussed in comparison with the findings of the empirical literature on learning in the EU (chapter 8): Bargaining among the actors based on their organisation's interests dominated in the policymaking process. 'Normal' aspects of learning occurred such as gains in experience and knowledge, but these could be expected in any policymaking process. The policy outcome however was less a result of changing underlying beliefs as an indicator for deeper learning, but rather a result of policy entrepreneurs making use of their previously acquired knowledge and experience to achieve a policy outcome aligned with their pre-formed deeper beliefs and policy ob-

jectives. The concluding chapter (9) provides a synthesis of the findings and original contributions to the governance and public policy literature before offering an outlook on implications for practise in the EU as well as implications for the EU-specific learning literature.

This research makes several original contributions to the agency aspects of environmental governance: the meta-theoretical framework on learning allows a more nuanced analysis of what aspects of learning occur in governance. It furthermore allows more precision in determining the extent to which a policy outcome results from learning or alternative explanations. The thesis clarifies the under-researched link between the learning individual and the factors hindering learning from being transferred to the organisational level where most policy decisions are made. In addition, the Renewable Energy Directive and the Common Agricultural Policy case studies allow a fresh perspective on the key role of bureaucrats as policy entrepreneurs and learning brokers. Overall, learning does matter in governance, but rather as an intervening variable with limited influence on the policy outcome. The effectiveness of governance can rather be improved by learning about strategies most suitable for influencing the governance process, by strategically creating or using windows of opportunity and particularly making use of existing experience and knowledge by acting as policy entrepreneur to pro-actively steer a policy proposal through the process of policymaking towards its outcome while avoiding institutional and political veto points.

The literature review in the following chapter analyses the policy learning and organisational learning literature. It thus serves two purposes. It critically discusses the learning literature in public policy and organisational studies, which results in the conclusion that the confusing and overlapping learning literatures can be synthesised into a meta-theoretical framework of learning (in chapter 3). Furthermore, it analyses the findings of the empirical literature on policy learning in the EU context as basis for synthesising the empirical findings on learning in climate policy integration presented in the later chapters.

Chapter 2

Literature Review on Learning in Governance

Is there a theoretical framework in the literature capable of identifying and explaining different types of learning in the policymaking process and the influence of learning on the policy outcome? This review of the political science and management literature finds gaps on how learning among individuals interacts with learning on the collective level of policymaking. It examines to what extent the literature provides a basis for a meta-theoretical framework that would facilitate the empirical analysis of learning in policymaking. This chapter has a dual objective. It provides a review of the theory-based and empirical literature on learning while distinguishing between the learning literature in political science and the literature based in management studies. It synthesises this diverse literature with different relevant elements of learning into a 'learning continuum' as basis for the meta-theoretical framework on learning (chapter 3).

Especially in the 1990s a diverse range of learning frameworks emerged, predominantly in the scholarship on public policy. Authors use different 'labels' for a multitude of learning types, which are frequently overlapping and as a result the literature has become confusing, widely imprecise and indistinguishable in what aspect of learning is examined on what level of governance (see also Rietig and Perkins 2013). To remedy this confusion in the literature - instead of perpetuating it with yet another 'label' for learning or by following one of the existing yet imprecise 'labels' - this review deliberately draws upon the original theories and supplements the discussion with more recent analyses that made significant theoretical contributions. However, it does not attempt to provide a complete overview of the more recent, diverse and nu-

merous applications of these theories to empirical cases as this would be beyond its scope. The empirical studies on learning and their findings relevant to the case studies on learning in climate policy integration are reviewed following a synthesis of the theoretical frameworks they are based upon.

Several disciplines are concerned with the question of learning among policy-makers. Political science with its notion of policy learning predominantly asks how learning can be used as a tool to improve governance procedures involving different actors (for key contributions see Levy 1994; May 1992; Nye 1987; Radaelli 2009; Sabatier 1987; Zito and Schout 2009).[2] It further links changes in beliefs to learning (see Nye 1987). Management studies is predominantly interested in the question how an organisation can improve its learning to optimise its performance, which overlaps with social psychology that is concerned with the question how individuals and organisations learn or do not learn in a certain context. This is referred to as Organizational Learning (see Argyris 1976; Argyris and Schön 1978; Easterby-Smith and Lyles 2005; March and Olsen 1975). A related further strand of learning is non-learning, i.e. when actors avoid engaging with a problem in a meaningful way that would lead to learning (see Janis 1972; Janis and Mann 1977).

2.1 Policy learning

When several state and non-state actors are involved in the exchange of knowledge on past experiences in a public policy setting, the overall term is 'policy learning'. The following section provides an overview of theoretical frameworks on learning in policymaking. Policy learning is frequently regarded as an aspect of the wider concept of policy diffusion, which is split up into policy transfer (Page 2000) and policy learning

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[2] The special issue in the *Journal of European Public Policy* (2009) sparked renewed interest in policy learning, which resulted in a multitude of research articles being published after the research design was finalised and data collection for this thesis commenced in January 2012. Contributions published after this date could thus not be taken into consideration for developing the meta-theoretical framework. These articles include Heikkila and Gerlak (2013), Radaelli and Dunlop (2013) on learning as well as Adelle and Russel (2013) on Climate Policy Integration.

with the overlapping concept of lesson-drawing (Evans 2004; 2006; Rose 1991) that focuses on learning from experience with past mistakes and successes as well as copying policies from other countries or levels of governance and adapting them to similar domestic circumstances. Related to this notion is also the concept of political/ strategic and instrumental learning, which focuses on how individuals and organisations learn to better navigate politics and how to use regulatory instruments to achieve their objectives (e.g. May 1992; Radaelli 2009). Another stream of policy learning literature is concerned with changes in beliefs either as a wider socio-political phenomenon or among individual policy-makers and in their governmental institutions (Haas and Haas 1995; Keohane and Nye 1987; Nilsson and Eckerberg 2007). This literature evolves around social learning among policymakers in policy- and knowledge networks that are capable of changing underlying beliefs (Nye 1987; Sabatier 1988) or learning in the process of implementing policy (Nilsson and Nilsson 2005).

2.1.1 What is learning?

The term "learning" carries different meanings and connotations, depending on the context in which it is used. This literature review follows the trend in the political science literature to widen the focus towards the rich and well-developed organisational learning literature (see also Dunlop 2010; Gerlak and Heikkila 2011; Koch and Lindenthal 2011; Zito and Schout 2009). Learning is frequently defined as the acquisition of skills and knowledge (or action and thought); it thereby carries the components of skills as 'know-how' or the physical ability to act, and of knowledge as 'know-why' or the ability to communicate an understanding of an experience (Kim 1993: 38). Learning can further be seen as acting upon experiences and correcting errors. Argyris presents a widely accepted definition explaining learning

> as the detection and correction of errors, and error as any feature of knowledge or of knowing that makes action ineffective. Error is a mismatch: a condition of learning, and matching a second condition of learning. The detection and correction of error produces learning and the lack of either or both inhibits learning.
>
> (Argyris 1976: 365)

A further widely accepted definition was provided by Heclo (1974):

> Learning can be taken to mean a relatively enduring alteration in behaviour that results from experience; usually, this alteration is conceptualized as a change in response made in reaction to some perceived stimulus.
>
> (Heclo 1974: 306)

This experiential learning-focused definition, which is applicable to both individuals and organisations, was picked up by Gerlak and Heikkila in their theoretical framework on factual and experiential learning of collectives:

> Collective learning involves both (1) a 'collective process,' which may include acquiring new knowledge through diverse actions (e.g., trial and error), assessing information and disseminating new knowledge or opportunities across individuals in a collective, and (2) 'collective products' that emerge from the process, such as new shared ideas, strategies, rules, or policies.
>
> (Gerlak and Heikkila 2011: 623)

The first definition provided by Kim (1993: 38) contains conceptual traces towards action and understanding and the second definition by Argyris (1976) emphasises experience and correction of errors. Both the definitions by Heclo (1974) as well as Gerlak and Heikkila (2011) focus on learning facts and reflecting on experience within a group of individuals, whereby the latter also includes the outcome of a learning process. As there are many different kinds of learning in the distinctive disciplines and sub-areas, each discipline provides a more or less slightly different definition and understanding of what learning is, depending on the context of analysis. Sommerer (2011) defines policy learning from a policy outcome-focused perspective:

> the process of observing a policy model from another country or the own past by political decision-makers, who want to improve the status quo for personal or idealistic reasons by choosing a rational model. Thereby their individual cognitive resources, but also institutional rules and political interests restrict them. At the same time they are able to profit from the capacity of information processing of bureaucratic organisations. Observing a policy model results in voluntary imitation or convergence with a relatively stable change of current policy.
>
> (Sommerer 2011: 40-41; translated from German language by author)

Sommerer's definition is useful as it is focused on actors and capabilities of political decision-makers striving to improve the status quo for personal or idealistic reasons by choosing a rational model and being restricted by their individual cognitive resources, institutional rules and political interests (Sommerer 2011: 40; translated from German language by the author). However, not only political decision-makers learn in public policy, but also civil servants, and for learning to occur in democratic policymaking, so does the unit or government department they are working for and potentially also wider society. Furthermore, learning does not necessarily occur when another policy model is being observed, what again must not necessarily lead to voluntary imitation or policy convergence. Policies can have other sources than learning such as necessity, legislative pressure via international agreements or coincidence with countries deciding on policies without knowing that similar policies already exist in other countries. A review of these different definitions of learning allows to identify elements common to most learning conceptualisations. The following definition consolidates the diverse understandings of the learning literature and provides an overall conceptual basis to the analysis. This thesis consequently **defines learning as a**

> *reflection* **and judgment based on an input, which leads the individual and/ or organisation to select a different view on (1) how things happen, i.e. additional knowledge or (2) what course of action to take, i.e. the reflection on individual or collective experience or advise from others on such previous experiences. The judgement can lead to an individual or collective change in beliefs. Policy outcomes can either be a result of learning or of alternative explanations.**

2.1.2 The relation of policy learning to policy diffusion and policy transfer

Policy learning is a sub-category of the wider literature on policy diffusion (Nedergaard 2007: 426). This provides an important link between the policymaking process and the policy outcome as the more specific policy diffusion and policy transfer literature comes from the result of the policy process, i.e. the policies that have become more similar across horizontal or vertical levels of governance (Benson and Jordan 2011; 2012). There are however limitations to the applicability of policy transfer and lesson drawing to policy research (James and Lodge 2003). Gilardi defines

diffusion as influencing "policy choices in one country (or another relevant unit) (…) by prior decisions in other countries (or relevant units)" (Gilardi 2010: 651).[3] Drivers of policy diffusion and thus policy learning and policy transfer are politicians, political parties, pressure groups, policy entrepreneurs, global financial institutions as well as supra-national institutions (Dolowitz and Marsh 1996). Particularly civil servants play an important role, as they can also act as legislators (Page 2003).

The basis to policy learning and policy transfer is drawing lessons from experience with policy programmes in other places or organisations. Lesson drawing is not an innovation itself but rather the utilisation of available experience, frequently motivated by dissatisfaction with the status quo (Rose 1991; 1993). For lesson drawing to occur, government officials embark on a search for ideas on how to improve the status quo. Frequently they turn to epistemic communities (Haas 1992), which act as agents of change due to their capability to provide policy-makers with input on what lessons can be drawn from experience elsewhere (Rose 1991). Other central actors for lesson drawing in public policy are civil servants, especially due to their permanent position and input in situations of 'collective puzzling' when elected officials are acting on the system-inherent uncertainty and wonder what to do (Heclo 1974).

Once lessons have been drawn in the form of adopting programmes from other institutions, organisations, levels of government or jurisdictions, policy transfer and diffusion can occur. The key difference is that policy transfer can be a result of coercion by a powerful actor, while diffusion and lesson drawing are neutral means behind policies becoming more similar over time (Dolowitz and Marsh 1996; 2000; 2012). Policies can be either transferred horizontally, i.e. from other jurisdictions on the same governance level or vertically in a top-down multilevel governance setting. Especially in the top-down transfer there are frequently pressures in the form of legislation or financial incentives involved (Asare and Studlar 2009). Policy transfer can occur as a marginal adjustment in the status quo when the settings of policy instruments are changed, as a change of the policy instruments themselves or as a change to the policy goals such as attitudes or ideas, with cognitive obstacles, environmental obstacles in

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[3] Gilardi defines "learning (…) as a mechanism of policy diffusion" (Gilardi 2010: 651), which is problematic given that learning is more than a mere spreading of policies as illustrated in 2.1.1 at the example of Sommerer (2011) who follows a similar approach like Gilardi (2010). His conceptualisation of policy diffusion as policies becoming more similar across different jurisdictions is however a useful approach.

the implementation phase and public opinion as central factors that have the potential to constrain policy transfer (Evans 2004: 38).

Policy transfer is frequently framed as a result of lesson drawing (Rose 1993; Evans 2004). Lesson drawing can occur by looking to other actors who have already found and implemented a response to a policy problem. The dimensions of lesson drawing include the same policy problem on other levels of governance (vertical) or in another policy field on the same level (horizontal). There are five possible modes of lesson drawing. First, the policy-maker could simply copy the other policy, i.e. vertically or horizontally adopt an existing policy or emulate it by adoption with modifications for European conditions (Rose 1991: 21-22). The policy-maker can also use hybridisation by combining two programmes, synthesis (a combination of several elements of several programmes) or inspiration, where other programmes serve as intellectual stimulus for developing a completely new policy solution (Rose 1991: 22-23).

A further stream of literature examines learning and policy diffusion from a game-theoretic and decision-science perspective. Sommerer (2011) examined policy diffusion in environmental policy making across predominantly OECD countries and made inferences about learning based on converging policies. In contrast, Volden, Ting and Carpenter point out that there is no automatic connection between policy diffusion and learning arguing that countries can have similar policies in place while being unaware of policies in other jurisdictions (2008: 330). They proposed a model to analyse policy diffusion among states across a horizontal governance level based on factual and experiential learning with a focus on gaining additional knowledge from experimenting with policies or studying the policy experiences of others (Volden, Ting and Carpenter 2008). The theoretical frameworks used by the game-theory literature are useful for a large-n approach taking a macro-perspective and comparing learning across different jurisdictions, but have limited applicability to the micro-perspective of identifying learning in the policymaking process.

In conclusion, it is important to make a clear distinction between lesson drawing, policy transfer and policy learning, which is frequently missing in this strand of literature and has led to the confusion of some of these concepts (Rietig and Perkins 2013). As Dolowitz and Marsh (1996: 344) point out, Rose uses the terms of policy transfer and lesson drawing interchangeably. They distinguish between lesson drawing as a process in which decision-makers voluntarily draw lessons from one or more

countries and apply the conclusions to their own policymaking, whereas policy transfer can also be forced upon decision-makers (Dolowitz and Marsh 1996).

2.1.3 'Normal' learning: Instrument(al) learning, governance learning, government learning and political learning

The learning literature has come up with a wealth of different 'labels' for learning in the policymaking process and most new reviews add another label. The result is a confusing cocktail of labels that are in danger of becoming meaningless due to their overlaps and incoherent usage (Rietig and Perkins 2013). Furthermore, there are a number of empirical analyses on learning in European policy making, including European climate policy integration, which make use of these theoretical frameworks. This section attempts to clarify their main aspects and summarises these key empirical contributions to allow a comparison of the empirical findings presented in chapter 6/ 7 in the discussion chapter.

Learning about modes of governance and policy instruments: Governance Learning and Instrument(al) Learning

Learning processes are a prominent side-theme in the EU governance literature on *'New' Governance, comitology and best-practise* and can be understood as receiving information about policy instruments and how they can be applied. The governance literature focussing on the EU makes references to learning as part of the 'new' modes of governance, for example within the Open Method of Coordination (Eberlein and Kerwer 2004: 123), monitoring mechanisms (Schout, Jordan, and Twena 2010: 159) and network governance (Coen and Thatcher 2008: 54). This strand of literature emphasises the diffusion of policymaking on a vertical and horizontal level involving different actors with shifting institutional links and hierarchies (Héritier and Lehmkuhl 2008). An example for the 'new' modes of governance is the Open Method of Coordination (OMC). The OMC is an EU-specific governance approach established in

2000 on employment strategy, economic policy, vocational training and social protection. Central elements are benchmarking/ target development, learning and mutual information with the objective to direct the activities of member states towards an agreed policy target within a set timetable and evaluating their success with peer-pressures and information disclosure incentives to be monitored by the European Commission, while leaving the details of how the targets should be achieved to be determined by the member states and without issuing legislation (Kerber and Eckardt 2007; Nedergaard 2006a; 2007; Trubek and Mosher 2003). This stream of literature carries the implicit assumption that the institutionalised regular meetings between policy-makers and the quality evaluation processes linked to the OMC help policy-makers exchange their experiences and learn from each other.

In his social constructivist model of learning Nedergaard (2006) defines learning as a change in terminology, thus emphasising the view of knowledge as a "socio-cultural process in which learning occurs through communicative processes among people contrary to conventional perspectives that focus on cognitive characteristics" (Nedergaard 2006b: 314). His approach takes a wide perspective, also regarding changes in terminology, i.e. re-framing of an issue as learning, what also includes lip-service, following orders and manipulation. Understanding the OMC as a mutual learning process in itself, Nedergaard (2006b) took a normative approach of proposing how learning in OMC committees can be improved to arrive at 'better' policy outcomes. The frequent interactions of members and the partial presence of policy brokers as authoritative persuaders facilitates learning (Nedergaard 2006b: 321) as well as when indisputable evidence of policy failure is presented to the committee (Nedergaard 2006b: 318). Learning is hindered by time constraints. Furthermore, the European Commission is seen as a political actor and policy outcomes are not reached by consensus and persuasion, but by political bargaining resulting in negotiated compromises in a highly politicised environment (Nedergaard 2006b: 318). Building on the 2006 study of OMC committees, Nedergaard (2007) tested 14 hypotheses on the conditions that make policy learning more likely in OMC committees. Nedergaard concludes that the committee should support participants in their preparation and provide adequate resources including empirical data from trustworthy sources such as the European Commission. It should not be fragmented into coalitions. Countries performing as leaders should be paired with laggards. To attract well-qualified and moti-

vated participants, the work should be made prestigious and the presidency should act as neutral authoritative persuader (Nedergaard 2007: 540-541).

A more recent analysis of governance learning was put forward by Schout (2009). His contribution of a new typology for '*governance learning*' was motivated by new preferences for governance instruments. Governance learning is defined as "learning about the major governance modes and how they can be employed effectively" (Schout 2009: 1125). Governance learning means switching between markets and networked governance such as communication as well as hierarchies in the form of legislation (Schout 2009: 1127). It has two aspects, instrument learning and organisational learning. Following May (1992: 332), he defines instrument learning "as the development in instruments and entailing lessons about the viability of the individual policy instruments" (Schout 2009: 1125). These include obtaining information about laws, soft coordination such as the OMC and steering through the use of tax incentives, innovation, fiscal policy and agencies (Schout 2009: 1127). The other aspect of 'governance learning' was labelled as 'organisational learning', which could be considered as a confusing choice of taxonomy as this term also describes the discipline of *Organizational Learning* that is concerned with learning among individuals and of public/ private organisations. In Schout's terminology (2009: 1127), it refers to accumulating information and experience about bureaucratic capacities, standardisation of objectives, training as well as horizontal coordination mechanisms such as task forces or teams. With a focus on governance reform and 'new' policy instruments in the EU, Schout (2009) compares learning on the European level with the Netherlands as national level. To develop a normatively 'better regulation' agenda, he hypothesised that governance learning, instrument learning and organisational learning need to occur in parallel both on the European and on the national level. He finds a match on the European level but a mismatch on the national level. The European Commission made progress on governance learning in the sense of normatively better implementing policies and engaged in organisational learning in the form of increased capacities.

'Instrumental learning' can be triggered when a government organisation seeks to improve its administrative and governance performance. Dissatisfaction with the performance of policy programmes can initiate a search for alternative modes of governance, i.e. "ways of doing business" (May 1992: 341). These types of policy failure can not only improve the modes of governance and the content of policy instruments,

but also provide the opportunity for reflection on the overall objectives. Instrumental learning is defined as mechanism for updating "subjective probability assessments when the information set available to actors changes" (Radaelli 2009: 1149) and occurs in organisations that find themselves under the pressure to deliver. Policy instruments and assessment tools such as Regulatory Impact Assessment are used by policy-makers when they want to improve the effectiveness and efficiency of regulation (Radaelli 2009: 1149), thus using knowledge as an instrument to achieve a given policy objective. In the arena of international cooperation between the EU and Africa as well as its influence on intra-African coordination Farrell (2009) finds that first and second order learning in the sense of shifting policy instruments and learning from experience occurred, but that the EU continued to understand itself as a normative actor promoting its values such as multilateralism, the promotion of democracy and protection of human rights (Farrell 2009: 1178).

Learning during the drafting and adoption of the European Emission Trading Scheme (EU 2003b) was analysed in accurate detail by Braun (2009) who makes references to experiential and factual learning in the policymaking process. He however also points towards alternative explanations for policy change other than learning as intervening variable between the policy driver as independent and the policy outcome as dependent variable. The individual policy-makers at the European Commission in the Directorate General of Environment were the actors who predominantly learned facts about emissions trading and invited experts who had experience with emissions trading to share their experiences. This learning about policy instruments gave them a strategic advantage in the policymaking process within the European Commission but particularly in the negotiations with the European Parliament and the Council. This allowed the key actors to play leadership roles during the negotiations by acting as policy entrepreneurs, thus creating a window of opportunity for introducing the proposal and getting it adopted. A conditioning outside factor was the need to implement the Kyoto Protocol, whereas a carbon tax was not regarded as an alternative given experience with the opposition of member states in the early 1990s. This dynamic was also explained with the same findings by Skjærseth and Wettestad (2010) without learning but using a liberal institutionalist and multilevel governance frame.

A contribution that emphasises the existence of policy learning as opposed to intergovernmental bargaining in EU negotiations is the paper from Eising (2002) on the

the Renewable Electricity Directive from 2001 and the wider issue of liberalising the electricity market. Member states are the agents of learning, particularly Germany, France and the UK who reflect on information from the European Commission. They learn from the policy proposals, especially if they promote new ideas, are complex or relate to multidimensional domestic situations making it difficult to assess the effect of the proposed legislation on the domestic structures. The outcome of the learning process is a change in member states' policy preferences given that a mismatch between the current arrangements and the political interests of the states was discovered and remedied (Eising 2002: 116). Learning is evidenced when states understood that market liberalisation was in their interest although they were initially opposed for economic or social reasons. Information and discussions in the EU context changed their initial preferences. Eising sees evidence for learning when states go beyond the directive in their domestic implementation. States detect and subsequently correct errors in their initial preferences so that their position accurately mirrors their actual interests. The European Commission was able to pursue its interest of market liberalisation in the negotiations with the member states based on its formal role in the decision-making process. Eising (2002) also emphasises that EU decision routines provide standardised conflict resolution mechanisms and information on policy impacts, potentially altering member states' domestic preferences.

Political Learning as learning about strategies to more effectively participate in the policymaking process

The concept of political learning dates back several decades and depending on the definition of learning, defensive avoidance (Janis and Mann 1977), buck-passing and 'muddling through' (Lindblom 1979) could also be included in this category. Based on the definition of learning provided above, latter aspects of political behaviour do not qualify as learning and are therefore addressed separately under 'non-learning' (see section 2.2.3). Political learning relates to tactical behaviour. The common element of political learning conceptualisations is that it is concerned with "lessons about manoeuvring within and manipulation of policy processes in order to advance an idea or problem" (May 1992: 351). In essence, individuals reflect on their previous experi-

ence or advice about the 'machinery' of policymaking and use this knowledge and experience to more effectively participate in the process; influencing the policy outcome using sophisticated political tactics. Political learning includes judgements whether proposals are politically feasible, i.e. have a realistic chance at succeeding, and a good understanding of the policymaking process (May 1992: 339).

Policy-oriented learning occurs within a domain due to differences in the belief systems (deep core, policy core, secondary matters of detail; see Sabatier 1988). The extent of policy-oriented learning is influenced by the level of commitment between the actors, fundamental legal norms, the desire of one advocacy coalition to 'outlearn' another coalition and the existence of niches providing an area for policy experimentation. Policy-oriented learning especially occurs in secondary aspects such as revisiting policy programmes, but is very rare in the area of changing core beliefs (Sabatier 1987; 1988; Sabatier and Jenkins-Smith 1993). Sabatier describes subsystem learning as a function of "(1) individual learning and attitudinal change; (2) the diffusion of new beliefs/ attitudes among individuals (…); (3) turnover in individuals within any collectivity (…); (4) group dynamics, such as the polarization of homogeneous groups (…); and (5) rules for aggregating preferences and for promoting (or impeding) communication among members" (Sabatier 1988: 149). Learning can be facilitated when members of a coalition exchange their interpretations regarding solutions to problems in a forum (Sabatier 1988). Actors use different strategies to win over the other advocacy coalitions and achieve decisions by governmental authorities in line with their fundamental deep core and policy beliefs (Sabatier 1988; Weible, Sabatier, and McQueen 2009: 123). Policy-oriented learning can either occur within advocacy coalitions or between advocacy coalitions (Sabatier 1988). If conditions such as hurting stalemates, effective leadership or a focus on empirical issues are fulfilled, learning across advocacy coalitions can occur. This usually happens within professional forums that offer an institutional framework for negotiating, agreeing and implementing agreements (Weible, Sabatier, and McQueen 2009: 124).

Most empirical studies that find political learning base their analytical frame either on Sabatier's policy-oriented learning or on May's (1992) political learning. Radaelli extended the concept of political learning by widening the typology to three different usages of knowledge: strategic use of knowledge to increase the core executive control on regulators, substantiating use of knowledge in support of a specific

policy paradigm and symbolic use of knowledge to increase the actor's popularity (2009: 1149). He examined also factual and experiential learning on the organisational level following the question whether Regulatory Impact Assessments enable governmental organisations to learn, particularly the EU and Denmark, the Netherlands, Sweden, and the UK. He makes an analytical distinction between instrumental learning, political learning and legitimacy-seeking emulation. Learning occurred in emulation, when the Netherlands diffused policies to the European Commission, the UK, Denmark and Sweden. He also found political learning in the Netherlands and the UK. The analysis found less evidence for instrumental learning (Radaelli 2009: 1160). Overall, learning was predominantly symbolic or political in the form of more effective participation in the policymaking process, but less in the sense of arriving at normatively 'better' regulation. The most relevant finding is that "learning should not be correlated with policy improvement. It is obvious that policy-makers have learned symbolically and politically" (Radaelli 2009: 1161). This final thought points towards the importance of constructivist learning as opposed to the 'normal' factual and experiential learning.

2.1.4 Complex learning: changes in beliefs

'Normal' learning focuses on gains in knowledge and experience in the process of policymaking. Another strand of literature links learning to changes in beliefs. There are two major perspectives: Those regarding wider change in policy frames as learning process and those aspects of social learning who more closely examine what aspects of beliefs changed such as deep core, policy or secondary beliefs (Sabatier 1988). Based on organisational learning theories, Nye (1987) suggested a distinction between 'simple' and 'complex' learning, whereby 'simple learning' refers to changes in means (such as policy instruments) based on new information while the ends, i.e. policy objectives, remain stable. This is however different from 'normal' learning, where only knowledge and experience increases without necessarily resulting in changed means or ends. 'Complex learning' refers to "a recognition of conflicts among values [that] leads to a modification of goals as well as means" (Levy 1994: 285). Complex learning can be regarded as including a change in underlying beliefs

on what means or goals should be pursued with the policy and which policy options should be followed to achieve a modified goal. This section examines theoretical and empirical studies that include changes in beliefs, values or worldviews in their analysis and thus go beyond the more 'normal' conceptualisations of learning via increased knowledge and experience.

Changes in the policy environment as learning

A set of literature that is empirically focused on the implementation of energy and agriculture policy in Sweden and the United States conceptualises Environmental Policy Integration as learning (Fiorino 2001; Nilsson and Persson 2003; Nilsson 2005; Nilsson and Eckerberg 2007). They define environmental policy integration "as a policy-learning process in which perspectives evolve and sectoral actors reframe their objectives, strategies, and decisionmaking processes towards sustainable development" (Nilsson and Persson 2003: 207). This conceptualisation links back to Jachtenfuchs (1996), who used the concept of learning as a change in frames which as "needs, resources and preferences of actors are socially constructed" (Jachtenfuchs 1996: 175). Jachtenfuchs examined the development of climate policy in the European Community during the 1980s until the 1992 Rio Summit. He found that the framing in the European Commission changed from 'classic environmental policy' to 'sustainability' and thus concluded on the occurrence of learning. Furthermore, he emphasised that the sustainability frame is politically more convenient as it allows a win-win approach to also achieve the other goals of economic growth, reducing distortions in the common market and facilitating the implementation of environmental policy in the member states, whereas the 'negative' frame of classic command-and-control environmental regulation was frequently at odds with these more traditional goals. This very broad definition of learning relates to changes in worldviews (Jachtenfuchs 1996: 175).

While Jachtenfuchs also includes the organisational level, Nilsson appears to focus implicitly on wider changes in the socio-political sphere. He uses a narrower definition of frames as "ways of selecting, organizing, interpreting, and making sense of a complex reality to provide guideposts for knowing, analysing, persuading and acting"

(Nilsson 2005: 209) and limits this to wider changes in the policymaking environment. Yet, a key aspect of the 'Environmental Policy Integration as learning'-literature is that it has a distinctive focus on the implementation of policies on the national and local level and thus takes a broader approach to learning across the full policymaking cycle. 'Learning by doing' and 'trial and error'-learning are typical occurrences in policy implementation. In a follow-up study Nilsson, Eckerberg et al. provide an empirically thick analysis of environmental policy integration into energy, agriculture and biofuels policy in Sweden using the same learning frame. Environmental policy integration is concluded to be learning, but it rather happens in wider societal frame-changes. Nilsson and Eckerberg (2007: 158-159) acknowledge the possibility of political learning but see this as potential basis for triggering "learning processes and EPI by constructing argumentative 'bridges'" (Nilsson and Eckerberg 2007: 158). Once the policymaking process is entered, political interests can take over and hinder learning so that "the learning approach is in this sense not completely in resonance with the nature of democratic politics" (Nilsson and Eckerberg 2007: 159).

Social learning

This type of learning relates to changing beliefs among individuals involved in the policymaking process or overall shifting objectives of the individual's wider organisation. Key contributions emphasised in the review articles (Bennett and Howlett 1992; May 1992; Zito and Schout 2009) are from Hall (1993), Sabatier (1987; 1988; 1998), and date back to Heclo (1974). It can be understood as a "reaffirmation or revision of the dominant causal reasoning about policy problems, interventions, or objectives. (…) Learning occurs when beliefs among policy elites about key aspects of policy within a given policy domain are either reaffirmed or changed. Demonstrating social learning requires showing that the dominant policy elite's beliefs have either been altered or reaffirmed in light of policy experience" (May 1992: 337-338). The key agent for social learning is the social interaction of experts who are either bureaucrats, politicians or members of epistemic communities (Hall 1993: 277). Hall defines social learning "as deliberate attempt to adjust the goals or techniques of policy in response to past experience and new information. Learning is indicated when policy changes as

the result of such a process" (Hall 1993: 278). Hall goes on to point out that learning is the result of policy-maker's reflection on policy-relevant knowledge or past experience and thus attempts to adjust a policy (Hall 1993: note 20).

A key contribution of Hall's (1993) paper on social learning is the typology of three order changes, which is very similar to Sabatier's (1988) model but does not include a normative connotation of beliefs. Hall points out three possible changes: 1st order change describes changes in policy instruments in the light of experience or knowledge with a frequently incremental character, 2nd order change implies changes in policy instruments and the wider instrument settings in which the policy instruments are applied and 3rd order change means that the hierarchy of goals behind the instruments and the instrument settings are changed (Hall 1993). Most of the aspects of Hall's conceptualisation of learning are about the policy outcome given that he defines learning as adjustment of policies of different scopes following the provision of new information. The conceptual challenge with this framework is that it does not encourage an analytical differentiation between learning in the policymaking process and the policy outcome. The change in policy instruments, instrument settings or hierarchy of goals can be a result of learning, but there are also numerous alternative explanations to this outcome that are not covered by Hall's framework.

Feindt (2010) analyses learning in Environmental Policy Integration within the paradigm shift in the Common Agricultural Policy from 1973 until 2004. The study focuses on wider changes in society and the EU's response. He finds that policy change in the Common Agricultural Policy has become the norm while learning is limited to increases in knowledge and experience. The constant change is due to the institutional role of the European Commission given that the Council never rejected a reform proposal in its entirety. As long as the European Commission promotes policy change, the institutional setting supports incremental changes and the evolution of paradigms (Feindt 2010). The Advocacy Coalition Frame (Sabatier 1988), which is combined with Hall's (1993) social learning and order changes, identifies learning as taking place within and across coalitions. The European Commission introduces changes and the Council favours the status quo. In the 2003 Fischler reforms, Feindt finds that the European Commission acted as policy broker by changing the framework conditions and creating hurting stalemates with the 'surprise reform proposal' approach of Commissioner Fischler. Social learning occurred (Feindt 2010) as de-

coupling and cross-compliance did not change the policy paradigm of income support. Therefore, rather an integration of new paradigms (EPI and market liberalisation) into the older paradigm of income support occurred, but it was not replaced.

Belief changes as learning in the international relations literature

Particularly the theory streams of institutionalism and constructivism within the international relations literature point towards the importance of beliefs and belief changes for decision-making processes and outcomes. Early key contributions (e.g. Haas 1980; Keohane and Nye 1987; Nye 1987; Wendt 1992) included learning as a relevant factor, both in terms of drawing lessons from collective experiences, including potential changes in underlying beliefs and foreign policy approaches following military interventions (e.g. Jervis 1976 and Ravenal 1978; see Levy 1994: 280) as well as explaining shifts in ideological framings such as the revolutionary changes in the Soviet Union under Mikhail Gorbachev (Breslauer 1992) and experiences of key individuals leading up to these changes (Gross Stein 1994). Some international security contributions went even further and linked learning to the evolution of social and political systems (Modelski 1990) as well as successful nuclear deterrence (Nye 1987).

There is a conceptual distinction between 'normative change' and 'normative learning' to be made. 'Normative change', as it is used by Robert Keohane and Joseph Nye (1987), refers to "new values [that] are desired as ends in themselves, as in a religious revelation" (Levy 1994: 286). In contrast, normative learning refers to changes in beliefs for example regarding the national interest, which is seen as means, i.e. "instrumental to the achievement of higher order national values (…) [such as] paradigmatic shifts, including Gorbachev's 'new thinking'" (Levy 1994: 286). Keohane and Nye defined learning as "to alter one's beliefs as a result of new information; to develop knowledge or skill by study or experience" (Keohane and Nye 1987: 749). This definition carries three types of learning: an addition in knowledge via study, more experience and a change in underlying beliefs resulting from factual and/ or experiential learning. They distinguish a mere shift in the national interest from learning by illustrating how powerful individuals can influence the national interest as a result of a change in leadership, for example following an election, but without reflecting wider

shifts in societal beliefs (see also Nye 1987: 378). Alternatively, a change may be a result of adjusted societal preferences and thus national interest. Actors as members of society can change their views when norms evolve (i.e. through 'normative evolution' and 'normative change'), subsequently making practices such as slavery or colonialism illegitimate in a later period (Nye 1987: 378). They also separate learning via changes in beliefs from judgements whether this learning resulted in more effective or morally superior policies (Keohane and Nye 1987: 749). 'Normative learning' is based on Ernst B. Haas' definition and occurs between states when "new knowledge is used to redefine the content of the national interest. Awareness of newly understood causes of unwanted effects often results in the adoption of different, and more effective, means to attain one's ends." (Haas 1980: 390; see also Nye 1987: 378).

Ernst B. Haas' (1980: 390) definition of learning as gaining better knowledge and skills to adjust strategies for achieving one's political objectives can be seen as falling into the category of experiential learning or, as May (1992) later referred to it, as 'political learning' or 'policy-oriented learning' (Sabatier 1987). This distinction also points towards a relevant observation made by Keohane and Nye when they pointed out that beliefs can change as a result of reflecting on previous experience such as failure to react appropriately to another countries' military aggression against a third country. But even if these beliefs changed, individuals or states may still lack the capabilities to react accordingly and thus to translate the learning into policy change (Keohane and Nye 1987: 750).

Furthermore, they introduce a distinction between incremental learning and discontinuous learning, which refers to major landmark events such as catastrophes, declarations of war or economic crises. Particularly international regimes as widely agreed-to rules, plans and regulations guiding organisational resource allocation (Ruggie 1975: 569) can facilitate incremental learning as they can

> 1) change standard operating procedures for national bureaucracies; 2) present new coalition opportunities for subnational actors and improved access for third parties; 3) change the attitudes of participants through contacts within institutions; 4) provide information about compliance with rules, which facilitates learning about others' behavior; and 5) help to de-link one issue from others, thus facilitating learning with specialized groups of negotiators.

> (Keohane and Nye 1987: 751)

There is also a relevant link between individual and organisational learning, as individual learning of policymaking elites is an important yet insufficient precondition for learning among societal actors on a collective level. Nye (1987: 381) points out that not all individuals within governments and societies learn at the same rate, whereby organisations require an institutional memory and procedures that again differently affect new and old members of that organisation. On a societal level, there are different interests and willingness to engage with new information and common experiences across societal groups and generations, all affecting "the transmission belts between mass public opinion, societal groups, and political elites" (Nye 1987: 381). The prior beliefs of individuals further influence their willingness to engage with new information that could potentially alter their beliefs as well as the way they interpret the new information (Nye 1987: 379) such as in bargaining situations dependent upon how individuals interpret their experiences from previous negotiations based on their existing prior beliefs (Nye 1987: 379; see also Leng 1983). These prior beliefs are formed through political leaders' reflection on previous experiences, while early experiences are particularly influential (Jervis 1976; Nye 1987: 380-381).

In his keystone paper on the 'social construction of power politics', Wendt (1992) picks up Keohane and Nye's (1987) conceptualisation of simple and complex learning. His discussion on how the influence of states' expectations based on other states' previous behaviour influences states' interests and identities can also be linked to learning based on a reflection of past experiences and subsequently adjusted beliefs (i.e. 'complex learning') where "the process by which egoists [in the prisoner's dilemma] learn to cooperate is at the same time a process of reconstructing their interests in terms of shared commitments to social norms (…) [whereby] these norms will resist change because they are tied to actor's commitments to their identities and interests, not merely because of transaction costs" (Wendt 1992: 417). Although Wendt focuses on international cooperation among states in the face of anarchy, his theoretical conceptualisation is also relevant to learning as it describes how actors come to see an issue differently or adjust their interests after reflecting on experiences and structural incentives for international cooperation. These newly formed beliefs are stable based on their link to the actor's adapted identity, which can also be interpreted as a 'deep belief' (Sabatier 1988).

The link between learning and policy outcome is explored in detail by Peter and Ernst Haas when they asked how international organisations can learn to do better (Haas and Haas 1995). They take a constructivist perspective and understand learning as a change in the values and interests of actors (Haas and Haas 1995: 258), which can be regarded as overall beliefs. A key element to learning is that actors realise the complex links between problems on an international organisation's agenda, whereby they label the process of learning becoming more embedded in an organisation as Organizational Learning and the "broader international process by which state entities and other actors learn and assimilate some of these lessons" (Haas and Haas 1995: 259) as Institutional Learning. Overall, their learning frame contains references to changing beliefs, consensual knowledge and experience in the interaction of collective state actors within international organisations.

Again focusing on international institutions as arenas for state cooperation and actors in their own rights, Haas (2000) analyses social learning among and within these institutions. He discusses the factors that enable institutions to learn via changing their perception on options for problem solving, i.e. beliefs, and subsequently their behaviour, i.e. the policy outcome (Haas 2000: 569). Comparing the activities of United Nations Environmental Programme (UNEP) and the World Meteorological Organization (WMO) on global climate governance, he illustrates how factual learning and policy outcomes depend on the actions of powerful individuals in leadership positions who reflect on scientific findings and draw lessons from past experiences (Haas 2000: 568-569). When they made active use of their leadership positions, individuals were able to translate their individual learning into policy change via their international organisation's actions. International institutions furthermore facilitate learning as 'teachers' when they have a high legitimacy, encourage the dissemination of innovations and information as well as build capacities for national governments to act, mostly via providing a negotiation forum for these activities (Haas 2000: 570-571). Haas uses the 'label' of social learning, whereby the learning discussed in this contribution is closely linked to factual learning and experience-based lesson drawing (albeit within the international context), which is also mirrored in later contributions by Oran Young (2008; 2010). The next section turns towards the Organizational Learning literature to integrate a closer understanding of cognitive and individual learning processes.

2.2 Cognitive and Organizational Learning literatures

Cognitive learning asks how individuals such as decision-makers learn and analyses the mental, frequently experience-based frames that determine thinking, memory and learning. Cognitive learning is based in psychology and therefore takes a micro-approach as opposed to the macro-approach of political science. Organizational learning is a diverse research discipline grounded in social psychology and management studies and is concerned with the scholarly analysis of what an organisation is and what it might learn (Argyris and Schön 1978; Easterby-Smith and Lyles 2005). The following section examines and summarises two cognitive approaches to learning: the linear learning process by Popper/ Swann as discussed in Swann (1999) and the central explanation of learning as experiential learning cycle resulting from reflection on trial-and-error (Argyris and Schön 1978). The second section turns towards Organizational Learning, which connects cognitive and constructivist learning theories and offers very useful elements to answer the research questions. It identifies Argyris' framework of single/ double loop learning (1976) together with the complete cycle of choice by March/ Olsen (1975) as useful explanatory elements.

2.2.1 Cognitive and experiential learning

Swann (1999) provides an overview on learning from a psychological-philosophical perspective based on Karl Popper's theory of learning (Popper 1979; cited after Swann 1999; Figure 1):

Figure 1. Cognitive Learning Process.
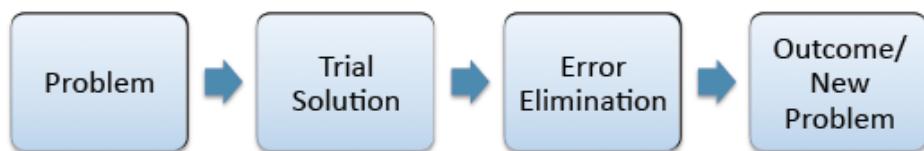
Source: Adapted by author from Swann 1999: 266.

Attempts are undertaken to solve the initial problem, what leads to a new set of problems or an outcome. The learning individual develops a trial solution to solve the initial problem that initiates the learning process. Any trial solution can be either successful to solve the problem or pose further challenges, leading to a process of error elimination that finally presents a new problem or outcome. The main elements of what happens when learning occurs are changes in the learner, activity, creativity, trial and error as well as attempts to solve a problem (Swann 1999). The learning literature in education is concerned with how students learn and how they use, store and retrieve knowledge either through memorising in the form of declarative learning or procedural learning as forms of surface learning, or if they use deeper-level knowledge (Hay 2007) and incorporate reflections on learning in learning cycles (Kim 1993).

One central concern of the learning literature is to determine how humans learn. As outlined in the definition of learning (2.1.1), learning can be understood as a process of drawing conclusions from experiences such as errors made in the past, reflection as well as adoption of a different course of action (Argyris 1976), thereby generating knowledge or skills. Argyris and Schön describe this model of learning from experience as "discovery-invention-production-generalization" (1978: 140) process. It was taken up and modified several times by subsequent authors to match their respective analytical focus on the learning environment. At the core of these individual experiential learning cycles is the observation that an individual lives through an experience, observes the consequences (which might be the detection of an error), assesses the situation by reflecting on the observations made during the experience, thereby cognitively designs abstract concepts or theoretical explanations, and implements them via testing (see Kim 1993: 39). Kolb referred to it as "observations and reflections [leading to the] formation of abstract concepts and generalizations [leading to] testing implications of concepts in new situations [leading to] concrete experience" (1984: 21, cited after Kim 1993: 38). Figure 2 visualises this simple model of individual learning, which is based on Argyris' (1976) experiential learning cycle.

Figure 2. Simple model of individual learning.
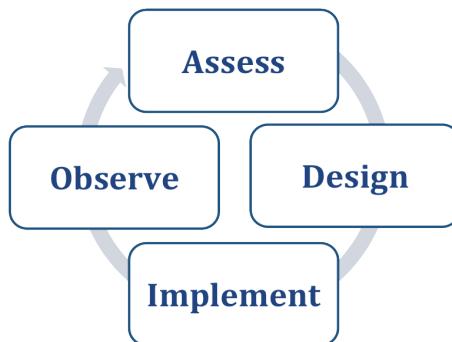
March and Olsen improved the understanding of how individual and organisational learning work together in their "complete cycle of choice" (March and Olsen 1975: 149). They describe a circular and reinforcing relationship between the individual, its' organisation, the environment and how individuals perceive the world. This framework is situated within the realm of learning from experience.

Individuals act or participate in a situation that requires a choice. Their behaviour in these decision-making situations is being influenced by their cognitions and preferences (element 1, March and Olsen 1975: 149). How individuals behave and participate influences the choices of the organisation they are affiliated with, thereby leading to a set of organisational outcomes or policies (2). In a third step, these organisational choices stimulate responses or actions from the environment the organisation is situated in or related to, which can be of spatial, political or societal character (3). These reactions of the environment affect individuals, which may have a relation to individuals within the organisation. Their individual cognitions and preferences, the way in which they understand the world they are living in, can be altered as a consequence (4). The learning cycle closes when these preferences of individuals change how they act or make decisions (see Figure 3, March and Olsen 1975: 150).

Figure 3. Complete cycle of choice.

Source: March and Olsen (175: 150).

A consolidation of different learning approaches was recently suggested by Gerlak and Heikkila (2011; Heikkila and Gerlak 2013). Based on key literature discussed in this chaper, they proposed to both analyse the learning process and the learning outcome (see also Heclo 1974) for examining learning among a collective (e.g. within an organisation) with a focus on the collectives' experience and addition in knowledge. A contribution by Dunlop (2009) applies an approach to adult learning from the educational literature to determine what decision-makers learn from epistemic communities. This is a rare contribution that focuses on the individual level. It applies typology on adult learning to a comparative case study between the EU and the US on how decision-makers learned about the milk yield enhancer bovine somatotrophin (rbST). She finds that all four aspects of learning were present to different degrees over the three decades examined. The study follows the dimensions of decision-makers' control over the content of learning and their control over the learning objectives. These included self-directed learning (high control of content and objectives), informal learning (high control of content, low control of objectives), non-formal learning (low control of content, high control of objectives) and formal learning (low control of content and objectives). In the US, decision-makers moved from non-formal learning to self-directed learning whereas in the EU the development was reversed (Dunlop 2009: 301).

A similar comparative perspective between the EU and the US with a focus on individual policy-makers was provided by Montpetit (2009). He conducted a survey of individual policy-makers involved in developing biotechnology policy and asked them about their learning while involved in policymaking. The findings are interesting as they falsify the EU literature's assumption that learning is particularly supported by the deliberative governance structure of the EU, which is seen as a more consensual political system as compared to the adversarial character of the US although these two systems are moving closer together (Sabatier 1998). The 666 survey answers indicate that both US and EU decision-makers and those in the EU member states engage similarly in learning, thus calling for a "significant revision of the theories suggesting that governance in the EU is particularly conducive to policy learning. In fact, policy development in nation states, including North American states, features policy learning in much the same way as in the institutions of the EU" (Montpetit 2009: 1999).

2.2.2 Single-, Double Loop and Deutero Learning

Argyris and Schön (1978) developed a conceptual framework to analyse how an organisation learns based on the observation that it frequently knows less than its' employees. The paradox of organisational learning is that it encompasses more than the learning experienced by individuals, but learning happens through the actions and experiences of the individuals within the organisation (Argyris and Schön 1978: 9). They developed their "Theory of Action" (Argyris and Schön 1978) to understand how individuals (i.e. policy-makers) learn to improve their effectiveness and competence by both taking action and learning from the experience through reflection. This deliberate action has a cognitive basis reflecting strategies, norms and assumptions of the individual's world and constitutes a theory-in-use, the way an individual actually acts in a given situation. This however is not necessarily the same as the 'theory-in-action', which refers to a behaviour the individual communicates as its' principled course of action (Argyris and Schön 1978: 6-11). Within an organisation, individuals construct their own but incomplete image of the overall 'theory-in-use', which is constantly being modified and makes organisational learning "an active process of orga-

nizing which is, at root, a cognitive enterprise" (Argyris and Schön 1978: 16) leading to what Argyris and Schön call Single-Loop-Learning:

> Members of the organization respond to changes in the internal and external environments of the organization by detecting errors which they then correct so as to maintain the central features of organizational theory-in-use. These are learning episodes which function to preserve a certain kind of constancy. (…) There is a single feed-back loop which connects detected outcomes of action to organizational strategies and assumptions which are modified so as to keep organizational performance within the range set by organizational norms. The norms themselves (…) remain unchanged.
>
> (Argyris and Schön 1978: 18-19)

Central elements of single-loop learning are unchanged norms and the objective of error elimination by developing new strategies to solve the problem; however for individual learning to become organisational learning, the evaluations need to be transferred to organisational memory (Argyris and Schön 1978):

> Organizational learning occurs when individuals, acting from their images and maps, detect a match or mismatch of outcome to expectation which confirms or disconfirms organizational theory-in-use. In the case of disconfirmation, individuals move from error detection to error correction. (…) From this it follows (…) that individual learning is a necessary but insufficient condition for organizational learning.
>
> (Argyris and Schön 1978: 19-20)

While the single-loop learning process or error detection and -correction rather depicts individual or – in the case of organisational learning – non-individual/ social perspectives of cognitive learning, Argyris and Schön introduce "double-loop learning". This becomes especially relevant when the correction of errors cannot be achieved through simply raising the effectiveness (as with single-loop learning), but when the norms defining effective performance need to be reconsidered and altered (Argyris and Schön 1978: 21-22). In sum, double-loop learning refers

> to those sorts of organizational inquiry which resolve incompatible organizational norms by setting new priorities and weighting of norms, or by restructuring the norms themselves together with associated strategies and assumptions.
>
> (Argyris and Schön 1978: 24)

A third level of learning within organisations is "deutero-learning" (Argyris and Schön 1978: 26). This occurs when individuals reflect on the experienced contexts for learning or failure to learn, thereby evaluating current strategies and coming up with new strategies for learning. As this learning process is being encoded in previously introduced individual images, it can also be reflected in the learning practise of an organisation. This concept of deutero-learning is referred to as organisational learning cycle (Argyris and Schön 1978: 27-28) and has thus similarities with the "complete cycle of choice" discussed in the previous section. Single-, double- and deutero learning thus all fall within the remit of reflecting on experiences and detecting errors.

A large number of empirical studies used or adapted the organisational learning framework, both in management and policy studies. Two particularly relevant studies in the area of learning in climate policy integration within the EU were published by Dunlop (2010) on biofuel policy in the UK and by Koch and Lindenthal (2011) on environmental policy integration in the European Commission. Dunlop's study (2010) is predominantly focused on the UK government level. It examines UK biofuels policy, particularly the implementation of the 2003 Biofuels directive (EU 2003a). The learning agents are decision-makers in the UK, predominantly in the Department for Transport, who learn from the scientific community. The content of the learning process is the introduction of new evidence of the mixed and partly negative climate performance of biofuels. The timing of this input was however unfortunate as the 2003 biofuels directive was already being implemented, a biofuels industry had formed and the first policy instruments were being legislated (the Renewable Transport Fuel Obligations), what resulted in a strong path-dependency and lock-in of the policy outcome. Consequently, the new evidence did not result in learning and changing beliefs about the viability of biofuels as means to address climate change and reduce emissions. Instead, the new evidence was being ignored for political and economic reasons. Another aspect was the strategic technological advantage actors hoped to gain by achieving a leadership position in supporting first generation biofuels, so that the infrastructure and know-how was already in place to gain a leading edge on more sophisticated second and third generation biofuels from non-food crops. This was interpreted as 'learning by doing'. Learning was analysed as either single- or double-loop learning based on Argyris and Schön (1978). Particularly the 'learning by doing' in the form of ignoring the evidence due to hopes of long-term climate benefits from second/ third

generation biofuels was interpreted by Dunlop (2010) as single-loop learning, whereas there was no clear evidence for double-loop learning, which would have required a shift in goals due to reflection on the evidence. While the single/ double-loop framework is well applied conceptually, the actors rather seemed to have entered into a mechanism of defensive avoidance as described by Janis and Mann (1977; see section 2.2.3) than into single-loop learning.

Koch and Lindenthal (2011) published a study on Environmental Policy Integration within the European Commission's Directorate Generals of Enterprise as well as Energy and Transport (DG TREN/ later split up into DG Energy and DG Transport). The learning actors are these DGs, who learn from DG Environment about integrating environmental objectives into their policy areas (from the late 1980s until early 2000s). They find three aspects of what they regard as learning as well as non-learning (i.e. no change). Non-learning refers to disregarding any demands to integrate environmental objectives, which was exercised by DG Enterprise in the late 1980s. The three aspects of learning are lip service, following orders and ignoring orders (termed compliant single-loop learning, compliant double-loop learning and non-compliant double-loop learning respectively). Lip service occurred when DG TREN/ Enterprise acknowledged the importance of the environment, while failing to integrate environmental objectives, resulting in a mismatch between what they said and did. This was the case in DG Transport in the 1990s and 2000s, DG Energy in the 1980s and 1990s, and DG Enterprise in the 1990s. Following orders occurred by acknowledging that environmental policy integration was important, evidenced by setting up environmental units and acknowledging the environment in management plans as well as reflecting on the importance of the environment in day-to day activities. This was found empirically to be the case in DG Transport in the 1990s and 2000s, DG Energy in the 1980s and 1990s and DG Enterprise in the early 1990s. Ignoring orders is understood as reflecting on orders and deciding to ignore them – and instead carrying on with business-as-usual with no change in output. While the empirical findings are interesting and merit further attention, the use of terminology is potentially misleading. What seemingly occurred in the past 20 years were different aspects of defensive avoidance, non-learning and alternative explanations to learning (see 2.2.3) such as the interest of continuing with business-as-usual. Overall, there is a mismatch between the DG's objectives, which are opposed to each other.

2.3 Alternative explanations to learning

So far, this literature review focused on the learning literature in the search for a theoretical framework that might be suitable to answer the key research questions. Particularly the public policy literature has examined policy change in detail, frequently without paying much attention to the role of learning. Thus, this section gives a brief overview of relevant alternative explanations for policy change other than learning, some of which will be taken up in more detail throughout the meta-theoretical framework and the empirical analysis (in particular Janis and Mann 1977; Kingdon 1995; Sabatier 1988). Overall, numerous contributions in political science and beyond have focused on the influence of power, national interests, the interests of private actors influencing decision-making using lobbying strategies and following pre-set objectives by carrying out orders from higher levels of the political hierarchy. These alternative explanations are too numerous to provide a comprehensive overview.

Much has been said about the importance of power in policymaking (e.g. Clegg 2010; Haas 2004; Saurugger 2013), the power relations between the European institutions (e.g. Costello and Thomson 2013; Häge and Naurin 2013) and among states (e.g. Haas 2004; Keohane and Nye 1987; Moravcsik 1993; Wendt 1992), as well as among non-governmental actors (e.g. Coopey 1995). At the same time, actors within the European institutions such as those chairing committee meetings have a considerable power resulting in asymmetries, which allow these actors to achieve their objectives via procedural tactics, behind-the-scene deals with negotiation partners and forming coalitions to secure a voting majority (see e.g. Tallberg 2004; Warntjen 2008). Theories of the policy process also emphasise the important role of policy entrepreneurs (Kingdon 1995; Roberts and King 1991), policy brokers (Sabatier 1988) and policy middlemen (Heclo 1974) to find a compromise solution between policy coalitions as emphasised for example by the Advocacy Coalition Framework (Sabatier 1988; Weible and Sabatier 2009). They furthermore emphasise the importance of windows of opportunity, in which the framework conditions are conducive to allow actors to address policy problems (e.g. Kingdon 1995; see chapter 3).

Linked to power, windows of opportunity and policy entrepreneurs are lobbying, bargaining and national interests as further key alternative explanations for policy

change that occurs independent of learning. The lobbying literature emphasises the power of industry and vested interest groups (e.g. Baumgartner 2007; Broscheid and Coen 2007; Klüver 2013; Marshall 2012). They use various strategies to influence policymakers so that these change their position in line with the lobbyists' interests. Particularly incentives in the form of future political support by important stakeholders, previous affiliations or loyalties as well as quid-pro-quo support for other policy proposals can influence policymaker's willingness to adopt a position that matches the lobbying group's interests. This change in position could thus not be attributed to learning given that no reflection occurred and the policymaker would have supported another position had the influence via the lobbying group not taken place. This literature can also be linked to power critiques in the stream on critical political economy problematising the influence of industry lobbying organisations and powerful economic interests (e.g. Newell 2000).

In a similar vein, political preferences of member states in the form of national interests also play an important role. Member states lobby the European Commission and Members of the European Parliament in negotiations before and after a policy proposal has been published to make their national interests in the matter clear (Panke 2012). They also form coalitions with other like-minded countries to improve their bargaining power (Elgström and Jönsson 2000; Slapin 2008) both in terms of votes and side-payments via concessions in other policy areas being negotiated in parallel or expected in the near future. Member states also rationally determine their benefits from implementing EU directives and depending on the gains from EU membership, the number of legal infringement cases varies (Perkins and Neumayer 2007). This finding points towards the relevance of 'gains' from EU membership and voting power within the European institutions and thus ultimately the importance of member states' ability to protect national interests. The stream of Intergovernmentalism emphasises the key role of member states in European policymaking, which act based on their national interests with little attention to the actions of supranational actors such as the European Commission (Moravcsik 1993).

A common element to most of the more recent studies on learning is their 'positive' focus on learning and less on hindering factors that make learning difficult. Looking back to case studies on learning in the United States in the 1970s and 1980s, May (1992) finds that there is less learning than could be expected given his differ-

entiation of learning types into instrumental, social and political learning. This is caused by a wealth of hindering factors. The findings on instrumental learning in mental health care policy and nuclear waste policy indicate deficient understandings of the policy problem and consequently means of improving policy performance in their technical, organisational and political constraints, what opens up the space for opponents to construct different views (May 1992: 349). Even where the knowledge existed to improve policy performance in the form of instrumental policy learning, policy-makers could not act on that knowledge as they were constrained by political factors. Similarly, the polarisation of beliefs among coalitions competing for political influence hinders social policy learning, as the beliefs are too different to allow finding common ground (May 1992: 349). Political learning is often opposed to policy learning in American politics as coalitions become more sophisticated in defending their beliefs. Examples include local protest groups that challenge federal beliefs on the suitability of their site for nuclear waste disposal, beliefs about potential harm and economic growth (May 1992: 350). Overall, May finds in his review of empirical studies that policy learning can be hindered by a lack of knowledge, experience and particularly stable beliefs. At the same time, the stable beliefs motivate actors to engage in political learning.

While the literature on alternative explanations for policy change other than learning is extensive and diverse, a relatively small body of literature originating mainly in management studies and social psychology is concerned with the opposite of learning (also referred to as 'non-learning') on the individual and micro-organisational level. This includes avoiding to reflect on an input, forgetting about previously acquired knowledge, reactive governing and simply 'muddling through' the process towards an outcome (e.g. Hedberg 1981; Hughes and Tight 1995; Huber 1991; Janis and Mann 1977; Lindblom 1959; 1979; Nystrom and Starbuck 1984). This literature provides indirect links to the well-developed literature on power and more state-centred explanations for policy change discussed above. Unlearning was introduced by Hedberg (1981) and picked up by Nystrom and Starbuck (1984). It is defined as "a process through which learners discard knowledge" (Hedberg 1981: 18; cited after Huber 1991: 104) that is considered to be obsolete and may thereby not only be unconscious, but also intentional (Huber 1991: 104). Yet the term 'unlearning' suggests that the decision-maker or organisation has previously acquired the ne-

cessary knowledge but chose to ignore it or lost the capability to use it. Reasons could be that the expert in the field left the organisation or the decision-maker forgot that s/he dealt with a similar issue in another context.

Janis and Mann (1977) suggest that decision-makers may avoid addressing a problem using defensive avoidance. This form of psychological defence gives rise to a defective search as it interferes with information processing and is frequently connected to unconscious sources of unresolved conflict regarding a decision (Janis and Mann 1977: 98). Especially policy-makers, when confronted with a problem that requires a resolution, are usually faced with two options: either they address the problem by designing a trial solution and thereby enter a process of learning, or they enter a state of defensive avoidance. This state can have personal consequences of a positive or negative nature. Options of defensive action are procrastination, buck passing and bolstering (Janis and Mann 1977: 107). Especially in large, government-related organisations decision-makers frequently consider the option of buck passing, i.e. delegating the decision to another department or somebody below/ above them in the hierarchy of their own department to avoid liabilities for a wrong or – especially in public office – unpopular but adequate decision or they procrastinate over the decision and hope that temporal circumstances or further developments take the decision off their shoulders (Janis and Mann 1977). An alternative option of unclear decision-making is bolstering. In this case, policy-makers reach an ill-considered decision that is based on shared rationalisations and a collective sense of being protected against threats of failure, which is also called 'groupthink' (Janis 1972). If policy-makers are confronted with certain conditions, they are likely to resort to groupthink, which may reduce the quality of their decisions (Janis 1972).

While the power-related literature points towards alternative explanations for a policy change other than learning (i.e. no learning occurred, but a policy outcome emerged nevertheless), the 'non-learning' literature emphasises that there are hindering factors that prevent individuals or organisations from reflecting on knowledge or experience and thus to enter a learning process. Both can occur during the policy making process: actors can learn, but their learning is not transferred to the policy outcome due to lobbying, powerful opposing coalitions or missing majorities. Similarly, a policy outcome emerges although actors entered defensive avoidance or followed orders from higher levels of the hierarchy, for example from a policy entrepreneur who used

conventional bargaining and negotiation tactics to achieve a voting majority in support of a policy proposal.

In conclusion, the analysis needs to take into account not only conventional explanations for policy change such as power, national interests, lobbying and bargaining, but also instances where decisions are avoided through procrastination, wishful thinking that the situation resolves itself, delegating the decision to others or ill-considered decisions based on groupthink (Janis 1972). These forms of defensive avoidance hinder policy-makers from entering into a learning process, and therefore point towards alternative explanations for policy change. The following section synthesises the different theoretical frameworks for learning discussed in sections 2.1 through 2.3 into a 'learning continuum' that allows to pinpoint how the different learning frameworks fit together as a first step towards developing a coherent meta-theoretical framework that involves the key components of existing frameworks.

2.4 The learning continuum

Sections 2.2 and 2.3 examined different types of policy- and organisational learning and uncovered a mature research literature that resulted from a complex development over several decades. Each learning frame covers different aspects, levels and stages of the policymaking process, but none provides a comprehensive frame that allows analysing collective and individual learning. There have been attempts to address aspects of the criticisms brought forward by Keohane and Nye (1987) on the shortcomings of the learning literature, which were however re-confirmed by Radaelli (2009) 22 years later. Few contributions on theoretical frameworks succeeded at addressing key shortcomings of the literature such as failure to differentiate learning from alternative explanations for policy change, mistaking learning for lip-service or defensive avoidance, setting learning and policy change equal as well as failure to separate different levels of collective learning (Levy 1994: 282).

This section categorises above discussed theoretical frameworks on learning into a 'learning continuum'. It comes to the interim conclusion that the policy learning literature within political science has the highest relevance for determining and detecting learning among decision-makers in (European) policymaking. The reason is that the policy learning literature emphasises the central importance of networks among different actors in policymaking as new form of governance (Eberlein and Kerwer 2004), the change in underlying beliefs by engaging in coalitions for policymaking (Sabatier 1987) and policy entrepreneurs (Roberts and King 1991).

Although the policy learning literature is very good at pointing out the existence of learning processes in policymaking and possible underlying factors, it partly falls short of providing an answer to the question of how exactly this learning happens. Furthermore, the policy learning literature points towards the role of epistemic communities and experts as agents of change with influence on the policymaking process (Haas 1992; Zito 2001) and links them with policy entrepreneurs (Braun 2009), but it does not systematically integrate those aspects into one coherent theory of policy learning. With a few notable exceptions (Dunlop 2009; Keohane and Nye 1987; Nye 1987; Radaelli 2009; Zito and Schout 2009), there is also a gap in the policy learning literature regarding the link of learning processes occurring on the individual and organisational level.

Above discussed diverse bodies of learning literature do have commonalities that point towards a larger set of factors influencing how decision-makers learn. Consequently, they can be placed in a learning continuum of two major characteristics. First, the learning continuum distinguishes *who learns*. Theories can be placed inside a continuum between individual learning and collective learning, while some theories expand to the link between the learning of an individual and how the learning result is transmitted to the broader community of that individual, for example the organisation or a network of different governmental, non-governmental or transnational actors.

Second, the learning continuum distinguishes between three modes of learning that also overlap in some learning theories and concepts. Learning occurs when there is a positive change, i.e. an increase, in the knowledge base of an individual or an organisation initiated by an internal or external information input that can lead to the development of certain skills. The most dominant mode of learning is by doing, i.e. 'experiential learning' that is based on drawing lessons from an experience (Ar-

gyris and Schön 1978). Individuals and organisations can also arrive at 'constructivist learning' when they change their underlying beliefs based on an experience or increase in knowledge and thereby come to see the situation differently (Haas and Haas 1995; Nye 1987), what in turn leads to a more informed and reflected reaction. Figure 4 provides an overview of the major learning literatures. The bodies of literature can be situated in the learning continuum along the individual or collective (organisational/ institutional or socio-political) dimension. The other dimension is the mode of learning, i.e. an increase in knowledge, experience or a change in underlying beliefs.

Cognitive learning theories and concepts are predominantly situated on the dimension of individual learning with increases in knowledge and, in the case of the experiential learning cycles, an increase in experience. The organisational learning literature frequently links the individual with the organisational, i.e. collective dimension of learning and focuses on how individual learning experiences are transferred to the larger organisation based on experiences and/ or a change in underlying beliefs, thus introducing also a constructivist element. The policy learning literature is predominantly concerned with the dimension of collective learning among institutions involved in policymaking. It is furthermore interested in how individuals react within their networks to changed outside conditions and adapt policies from other levels of horizontal or vertical policymaking. The non-learning literature can be situated either on the individual level where there is a lack of reflection on the new information (defensive avoidance) or on the collective level where decision-makers resist to take into account new knowledge (groupthink). The next chapter consolidates above discussed learning theories into a meta-theoretical framework that allows analysing what types of learning occur under what conditions in policymaking.

Figure 4. Categorisation of major learning frameworks within the learning continuum. PL = Policy Learning; OL = Organisational Learning; Non-L = Non-Learning. Compiled by the author.
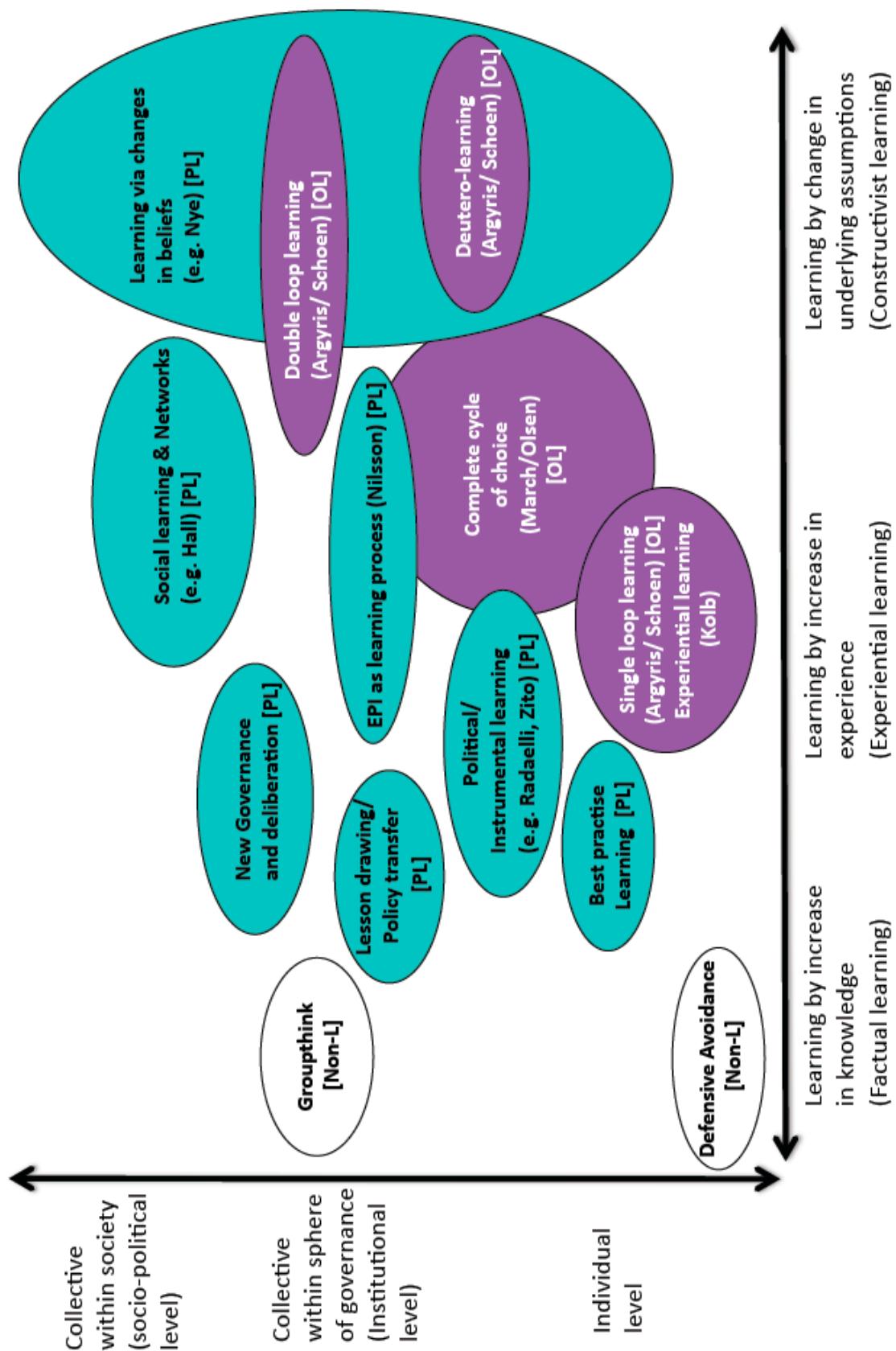
Chapter 3
Meta-theoretical framework on learning in governance

Given that the literature review did not identify a suitable existing framework that allows to detect learning among decision-makers across multiple governance levels, this chapter develops a meta-theoretical framework based on the learning literature. The most widely used labels of learning are 'political learning' (May 1992; Sabatier 1988), 'government learning' (Etheredge 1981), 'governance learning' (Schout 2009), 'social learning' (Haas and Haas 1995; Heclo 1974; Nye 1987), 'lesson drawing' (Asare and Studlar 2009; Rose 1991), 'instrumental learning' (May 1992; Bennett and Howlett 1992), 'organizational learning' (Argyris and Schön 1978; March and Olsen 1975), 'single-/double loop learning' (Argyris 1976), 'environmental policy integration as learning' (Nilsson and Eckerberg 2007) and further aspects summarised under the term 'policy learning' (e.g. Jachtenfuchs 1996; Nedergaard 2006a; 2006b). Chapter 2 identified two modes for learning. First, learning can occur within a single policy-maker (on the individual level) in a relatively closed sub-system such as an organisational unit consisting of a limited number of individuals. Second, learning can occur in a wider collective context that includes a large number of individuals involved in the overall policymaking process on the organisational level. Developments on the socio-political landscape can have feedback effects on policymaking based on the public's overall willingness to accept a policy proposal as socially and politically desirable.

The core element to identifying learning among policy-makers is to define learning, especially as opposed to classic bargaining behaviour and the representation of pre-formed interests in negotiations (see also Radaelli 2009). The literature and the definition of learning (see chapter 2.1.1) led to the conclusion that learning in a policymaking setting consists of three core components: the actor(s) reflect on a stimulus

such as new information, leading to an increase in knowledge, experience or even changes in underlying beliefs. These different types describe a horizontal aspect of learning, which can occur across the individual and collective levels as discussed by the cognitive learning literature (e.g. Argyris and Schön 1978; Kim 1993; March and Olsen 1975). The collective level can further be divided into learning within and between organisations and overall shifts in the socio-political landscape.

The first section discusses the epistemological background for the theoretical framework, i.e. the underlying theoretical assumptions. The second section of this chapter clarifies how learning can be identified in the policymaking process and how the different aspects of learning presented in the 'learning continuum' (chapter 2) relate to each other. The third section illustrates the interdependence between learning and the policy process to determine how learning affected the policy outcome.

3.1 Epistemological background

The empirical research on indentifying learning approaches the research question from an institutionalist perspective in the tradition of comparative public policy similar to the research of John Kingdon (1984), Paul Sabatier (1988; Weible et al. 2011a; 2011b), as well as James March and Johan Olsen (1975; March et al. 1998), yet without ascribing to a specific sub-category such as 'old', 'new', 'historic' or 'sociological' institutionalism. However, the basic assumptions particularly of the meta-theoretical framework for learning are shared with the perspective of 'new institutionalism' and wider implicit institutionalist approaches in the International Relations literature (e.g. Bernstein and Cashore 2012). In its empirical perspective, the research also relates to 'European Multilevel Governance' (Jordan 2001; Marks and Hooghe 2001; Hooghe and Marks 2003) when it acknowledges diffuse power and multiple entry points for actors.

This thesis does however not intend to relate to either the European Integration literature that emphasises deliberation, persuasion and the unique evolution of the EU

(Héritier and Lehmkuhl 2008; Risse 2005), constructivist perspectives emphasising the subjective construction and use of knowledge (Jasanoff 1990; Saurugger 2013), critical perspectives focussing on the role of power in governance or the intergovernmentalist perspective emphasising the dominant role of states (Moravcsik 1993). It is primarily interested in examining learning within the policymaking process (i.e. law-making) that takes place in the interaction of governmental institutions. Above perspectives would divert attention from the core research questions if decision-makers learn, how this learning can be identified and under what conditions it occurs. The research questions are thus focusing on the interplay of actors and institutions, not the normative implications of the interplay. For example, critical approaches to governance research would at the stage of identifying learning processes complicate the analysis and theory development unnecessarily. So for the benefit of parsimony, the selected starting point for the research is an institutionalist tradition.

Basic assumptions are rational actors trying to achieve their political objectives which are based on the goals of the actor's institution, the existence of shared beliefs that guide the actor's behaviour and political preferences, a pluralist decision-making arena with multiple interests, actors, and levels of governance as well as the opportunity for individuals to take on active roles in influencing the governance architecture of the institution, its objectives and policy outcomes. Most of these assumptions are mirrored by the institutionalism literature (Bell 2011; March and Olsen 1984). It does however not take a normative approach making value judgements of how policymaking *ought* to be, it only examines how and why policymaking works the way it does and to what extent the intervening variable of learning matters. These assumptions are mirrored by new institutionalism, which "argues that preferences and meanings develop in politics, as in the rest of life, through a combination of education, indoctrination, and experience. They are neither stable nor exogenous" (March and Olsen 1984: 739).

3.2 Overview of the framework

The meta-theoretical framework presented in this section draws on aspects of two theoretical frameworks of the policymaking process to more accurately analyse the empirical findings on the factors that facilitate or hinder learning. It does however not seek to apply them in their entirety or tries to 'square the circle' of combining non-compatible basic assumptions (for discussions on their weaknesses and limited compatibility see Ackrill, Kay, and Zahariadis 2013; Capano 2009; Zahariadis 2007). It only uses them as auxiliary additional lenses from which to borrow key aspects missing in the learning literature to answer the research question and to test the hypotheses. Combining the Multiple Streams Framework (MSF) by Kingdon (1984; 1995) with aspects of the Advocacy Coalition Framework (ACF) by Sabatier (1988; 1998) is not straight-forward as they are not compatible on various grounds, each addressing key epistemological and theoretical dilemmas differently (see Capano 2009: 18-21).

The meta-theoretical framework presented in this chapter is intended as a 'stand-alone' framework that borrows empirically proven concepts from existing frameworks and thus takes a similar approach as Sabatier in his 1987 and 1988 papers on the ACF (Sabatier 1978; 1988). The following section explains the *epistemological and theoretical choices* following the analytical framework presented by Capano (2009). It however understands the choices as different options along a scale and not as a binary of 'either - or'. Public policy is understood from an output perspective in the form of a piece of hard or soft legislation (for definitions, see Abbott and Snidal 2000) that has been negotiated by different governmental and non-governmental actors on one or across multiple levels of governance. Policy change is defined as the difference between the status quo at a certain time and the progress compared to the status quo at a later time, whereby this also includes policy stability: an example for policy change would be the difference between the policy measures in the EU's Common Agricultural Policy of the years 2000 and 2013 or the outcome documents of the negotiations within the UNFCCC between 1997 and 2012.

The meta-theoretical frameworks' basic epistemological choices relate to the ideal type of the 'life cycle' (Capano 2009: 10, based on Van de Ven and Poole 1995): It assumes that there is a driver for policy change such as a policy problem that requires a response in the form of a policy outcome. This can be compared to a key metaphor of organic growth with a prefigured sequence containing a relatively linear progression of events based on institutional rules (see Capano 2009). For example, the legislative process embedded in treaties regarding the functioning of a political system has a linear nature with a sequence of events and involvement of different actors at each stage (e.g. Craig 2010; Weidenfeld 2006) based on a constitution or similar treaty. Thus, the motors of change propel along a process of policymaking resembling the prefigured program. Institutions regulate this process of policymaking, whereby the outcome of the change also contains a certain level of irreversibility (Capano 2009: 10, based on Van de Ven and Poole 1995) given that each existing piece of legislation benefits certain actors who form vested interests. These in turn result in lock-in effects into a continued existence, making non-incremental change unlikely. The dynamics of policy development are rather evolutionary with incremental changes along reform processes that are initiated as a result of reflection on previously existing policies (i.e. the driver for policy change). The emphasis on 'reflection' as a pre-requisite for learning also allows for more rapid developments.

The meta-theoretical framework on learning takes a 'co-evolutive perspective' while linking macro and micro levels as discussed by Capano (2009). This is useful as it allows to understand both the micro-factors such as learning and the influence of individual policy entrepreneurs but also to take wider developments on the macro-level within the socio-political landscape into account. The framework requires a co-evolution approach in the form of process-tracing the development of a policy from its origins (i.e. the driver for policy change) to its outcome to be able to pinpoint the micro-processes of learning at different stages. This is important, as learning is not evenly distributed across different stages of the policymaking process. The "structure/agency dilemma" (Capano 2009: 16) is addressed via the linkage between the individual level and the organisational level of learning as well as possible alternative explanations to learning. The process-tracing methodology suggested for the empirical studies allows identifying when individual action of policy-makers was translated into the "'behaviour of [the] social unit' (…) to show how individual actions combine to

produce a social outcome'" (Coleman 1986: 363, cited after Capano 2009: 16). It is based on a combinative causality that takes the interdependence of levels on which learning occurs and alternative explanations to policy change into account. The key explanatory variables are policy entrepreneurs, organisational hindering factors, political interests, and changes in the socio-political landscape.

Table 1 compares the epistemological and theoretical choices of the ACF and MSF and thus makes their differing underlying assumptions clear. It also summarises the epistemological and theoretical assumptions of the meta-theoretical framework to identify learning in policymaking presented in this chapter, which is important to understand "the viewpoint to be taken when considering reality" (Capano 2009: 11) and to allow reproducibility by applying the framework in an empirical context; while also taking into account the fit with basic assumptions to make informed choices of its applicability and limitations (King, Keohane and Verba 1994).

Table 1. Epistemological and theoretical choices in the ACF, MSF and meta-theoretical framework on learning in policymaking.

	Multiple Streams Framework	Advocacy Coalition Framework	Meta-theoretical framework of learning in policymaking
Epistemological choices			
Way of event progression	Non-linearity (ambiguous and unpredictable)	Linearity (partially predictable)	Linearity (from driver to address policy problem to policy outcome in the form of legislation)
Dynamics of development	Not prefigured but predominantly evolutionary	Not prefigured	Predominantly evolutionary
Motors of change	Partially constrained chance and entrepreneurship	External factors, partisan change, confrontation, learning	External factors (changes in the socio-political landscape) and internal factors (learning, entrepreneurship)
Theoretical choices			
Definition of policy development and change	Particularly focused on agenda setting. No distinction among different types of policy change	Covering the entire process. Tripartition of content of changes (based on a tripartition of policy beliefs)	Covering the entire policymaking process (not implementation), takes previous policies into account (reform processes), focus on learning

Type of change (incremental or radical)	Not prefigured even incremental oriented	Both	Not prefigured even incremental oriented
The output of change	Not prefigured	Reversible	Limited reversibility due to lock-in effects over time
The level of abstraction	Co-evolutive perspective	Linking macro, meso and micro levels	Co-evolutive perspective while linking macro and micro levels within the meso-level of a policy subsystem (effect of socio-political landscape on learning on the organisational and individual level)
The structure-agency dilemma	Structural prevalence but with room for individualistic strategic behaviour	Linking constantly structure and agency	Linking structure and agency: individuals and actors learn, but policy outcome is also determined by institutional structure and other factors
Causal mechanisms	Random combinative causality mixing exogenous and endogenous variables, but the exogenous ones seem prevalent	Combinative causality – the composition of which depends on the type of change. Major changes are exogenously determined.	Combinative causality, interdependence of levels of learning and alternative explanations to policy change
Explanatory variables	Critical external events (technological change, electoral victory, systemic or international crisis) plus the eventual role of single individuals	Critical events, ideas and beliefs, competition, learning.	Policy entrepreneurs, organisational hindering factors, political interests, changes in the socio-political landscape
Configurative dimensions	Semi-chaotic mix of 3 dimensions (policy as arena of power, as ideational forum, and as target of political institutions' influence)	Focused on the interaction of three configurative dimensions: policy as arena of power, as set of networks and as ideational forum	Policy as institution (law, rule, norm)

Source: Capano (2009: 20-21) on MSF/ ACF and author on the meta-theoretical framework.

As illustrated in table 1, both frameworks make use of concepts that occur at different stages of the policymaking process as discussed by the rich empirical literature that applied both frameworks over the last 25 years (e.g. Weible et al. 2011a; 2011b; Zahariadis 2007). The following sections conceptualise the different stages of the meta-theoretical framework, whereby the section on drivers for policy change draws predominantly on certain elements based on Kingdon (1984) such as policy entrepreneurs and the socio-political landscape. The sections on learning and the policy outcome draw on Sabatier's (1988) elements of conflict, hindering factors, the importance of policy brokers, policy-oriented learning as aspect of experiential learning and the tripartition of beliefs. All of these elements however are reconciled in the epistemological and empirical assumptions discussed above and can thus be combined in the proposed meta-theoretical framework to identify learning in policymaking.

Figure 5 summarises the meta-theoretical framework. Learning processes can occur on the individual and/ or collective level. A driver for policy change initiates the policymaking process that can include learning. A policy outcome emerges either as result of learning or of alternative explanations that were independent from whether learning among individuals or on the organisational level occurred. The following sections examine the key elements of the framework in detail.

Figure 5. Learning in policymaking.
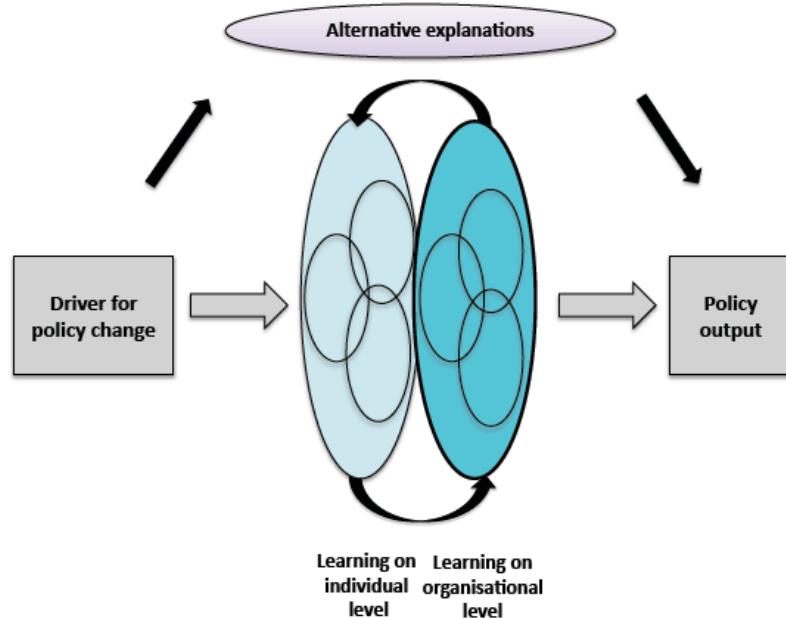
Compiled by author; based on Argyris and Schön 1978; Janis and Mann 1977; March and Olsen 1975; Nye 1987; Sabatier 1987; Swann 1999.

3.3 Driver for policy change

There are different drivers for policy change that can ultimately also initiate learning among the individuals and organisations involved in the policymaking process. The underlying assumptions of this framework are based on analytical frameworks of the policy process that conceptualise policymaking embedded in a wider continuum of interests, choices, actors and influential external factors with rational actors. It also assumes that multiple places of entry and exit without one centralised decision-maker but rather a multitude of actors and levels that interact and influence the policy process at different times and stages. These basic assumptions were used by Kingdon's Multiple Streams Framework (Kingdon 1984; 1995; Zahariadis 2007), which provides a powerful explanation of agenda setting and how different problems, the wider public mood, external shocks and changes in political leadership influence policymaking. Two key assumptions are that policymaking happens in an environment of "organized anarchy" (Ackrill, Kay, and Zahariadis 2013: 871) and that the 'solutions' to the problems already exist in theory, but so far there was no opportunity for these 'solutions' to be translated into policies (Kingdon 1995). Empirically, the Multiple Stream Framework can be applied to federal and semi-federal political systems such as the United States, the EU (Kingdon 1995; Zahariadis and Allen 1995) or Germany, whereby Keohane also suggested an extension of the 'garbage can model' (Cohen, March, and Olsen 1972) as mother concept to be applied to Intergovernmental Organizations (Keohane 2002).[4]

The Multiple Streams Framework by John Kingdon emphasises the existence of wider societal demands in the form of a problem stream as well as agency with the role of policy entrepreneurs making use of windows of opportunity (Kingdon 1984). There are three independent, parallel streams in the 'policy primeval soup' that contains policy communities. This is based on the garbage can model on organisations as organised anarchies introduced by Cohen, March and Olsen (1972) with the assumption that policymaking is a chaotic, complex process and occurs when the three paral-

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[4] This thesis favours Kingdon's framework as it can be understood as a further development of the garbage can model originating in the 1970s. Kingdon's framework of the policy process has been updated in the 1990s and successfully applied to the EU (Ackrill, Kay, and Zahariadis 2013; Zahariadis and Allen 1995), on which the empirical focus of this thesis rests.

lel streams of problems, politics and policies join in a window of opportunity that is seized by policy entrepreneurs.

The problem stream consists of different issues and policy problems wider society and policy-makers are concerned with. Together with the political stream, it served as inspiration for the socio-political landscape in this research. Kingdon's problem stream contains more conditions and stages such as the shift from a situation, e.g. 'poverty' or climate change that exists independently from policymaking, to a 'problem' when individuals in policymaking come to believe that they "should do something about them" (Kingdon 1995: 109). The definition of the problem is furthermore influenced by the values of the actors involved, comparative and distributive aspects and in particular which 'category' a situation is attributed to, for example whether navigation is regarded as a part of water resources policy or transportation (Kingdon 1995: 111) or whether renewable energy policy is seen as energy policy serving the objective of energy security and economic growth or whether it is seen as climate change mitigation. Thus, if society and policy-makers care about an issue (or 'situation') and thus regard it as a 'problem', it is more likely to enter agenda setting and ultimately the policymaking process.

Two other streams are equally important, the politics and the policy stream. The politics stream is characterised by party ideology, pressure group campaigns and the national mood. Especially the national mood is of relevance to policy-makers as it reflects wider societal demands and the thinking of a large number of individuals along common lines, which changes over time. The national mood relates to an initial openness to the ideas among policy-makers, whose "sense of the national mood serves to promote some items on their policy agendas and restrain others from rising to prominence" (Kingdon 1995: 147). Other factors of relevance in the political stream are personnel turnover as result of elections or administrative changes, while the new individuals are likely to hold different ideological beliefs particularly if they are from opposing political parties (Zahariadis 2007: 73). The policy stream contains a large number of policy proposals introduced by various actors. Which one emerges from this 'primeval soup' depends on the acceptability of underlying values (e.g. privatisation), the technical feasibility and anticipation of future constraints. As a few leading ideas become more prominent, are discussed more frequently and are taken more seri-

ously so that ultimately a consensus emerges among the policy experts such as civil servants and epistemic communities (Kingdon 1995: 140-141).

To initiate a policy process and arrive at a policy outcome, these three streams need to merge in a window of opportunity to 'lauch' the policy proposal that was waiting to be attached to a particular problem and to push it through the decision-making process. Particularly changes in the national mood, external 'shock' events, scheduled reforms or changes in political leadership open up these windows of opportunity (Kingdon 1995: 165-169). Recent examples are rising concern among the public about environmental degradation and climate change, the nuclear disaster in Fukushima in March 2011 that resulted in Germany's exit from using nuclear power, President Obama's healthcare reform or an incremental greening of the Common Agricultural Policy with each reform attached to the 7-year European budget cycle.

A particular aspect of the problem stream is dissatisfaction with the status quo especially if bureaucrats initiate policy proposals (Kingdon 1995). Dissatisfaction with the status quo can be a driver for learning in the policy process as policy-makers often do not have an incentive to change established administrative routines or strive for policy change (Rose 1991: 10-11). This does not contradict the idea of co-existing drivers for policy change along problem, policy and political streams waiting for their window of opportunity to open. Actors aspiring change can establish dissatisfaction with creating a gap by "raising aspirations about what (…) is possible to attain" (Rose 1991: 11-12). Reasons for dissatisfaction can furthermore be uncertainty among policy-makers based on the complexity of an increasing number of policy programmes, changes in the policy environment leading to negative effects although the policy programme remained unchanged, shifts in political values or the threat of sanctions to policy-makers unless they change insufficient policy programmes (Rose 1991: 11-13). A crucial precondition for learning is that the policy-maker reflects on available information and that solving the problem is in the policy-maker's interest. Not only rational interest, but especially the individual's beliefs determine preferences and cognitions of the problem, the 'models of the world' (March and Olsen 1975) – in short how the policy-maker sees and understands the problem. In conclusion, this framework draws on the MSF to explain drivers of policy change, which can be summarised as shifts in the socio-political landscape encouraging policy change.

3.4 Learning typology – how learning can be identified

Resulting from the review of learning literature across disciplines, there are three key elements to learning (see chapter 2). Learning in policymaking occurs when an individual or a group is exposed to an input and reflects upon it. Factual learning refers to an increase in knowledge. The individual received new information or rearranged existing knowledge given a new context, processed the new information cognitively and added it to the knowledge base (Argyris and Schön 1978). Depending on the formation of cognitive links to existing knowledge, revision and the use of different information processing modes such as visualising, hearing, discussing or feeling, the knowledge is stored in memory and can be retrieved if required (as discussed by the cognitive/ educational learning literature, e.g. Hay 2007). In a policymaking context, factual learning refers to an increase in knowledge about policy instruments (e.g. how market-based instruments such as emission trading work) and facts on the policy area such as technological details about the carbon performance of biofuels. It requires the individual or organisation to reflect on information provided to them either via publications, information by outside actors such as experts and other government departments, as well as information gained via their own fact-based research activities.

Experiential learning requires the reflection on an increase in experience. This occurs when the individual made an experience regarding a policy, reflects upon it and adds the conclusions from the experience to their set of skills. Experiential learning refers to the ability to reflect on working experience accumulated over a certain time frame. A key aspect of experiential learning in the policymaking process is learning how the policymaking system works and becoming skilled at using strategies and tactics to influence policymaking. This is widely referred to as 'Political Learning' in the political science literature (May 1992; Radaelli 2009). Sabatier's (1987) policy-oriented learning also falls into this category as it describes how individual policymakers learn using different tactics and strategies to manipulate the policymaking process according to their predetermined objectives. Furthermore, most aspects of single-/ double loop learning in Organizational Studies (Argyris and Schön 1978) fall within the experiential learning category as it focuses on identifying and eliminating errors following the reflection on past experiences in policymaking. Individuals and

organisations either adapt their current actions based on the previous experience in the form of 'learning by doing' (single loop learning; Argyris 1976) or they also adapt their objectives following their reflection on past experiences with single loop learning (i.e. double loop learning; Argyris 1976; Dunlop 2010). Both forms of learning can occur together when the individual or organisation gains knowledge about an issue by experiencing it in practice (see March and Olsen 1975).

If underlying beliefs change, resulting in a different view of how the individual or organisation 'sees things' (Nye 1987), constructivist learning occurs. Based on Sabatier (1988) and Hall (1993) as well as the further developments by Jachtenfuchs (1996) and Farrell (2009), four types of beliefs can be differentiated, depending on their stability and what they refer to. Beliefs are defined in this thesis as a person's or organisation's views of the world and normative understanding of how things ought to be, which can mean maintaining or changing the status quo. This definition is close to Sabatier's (1988) understanding of beliefs. A normative understanding of beliefs includes the policy process that may or may not be reflected in the outcome. Consequently, there are four aspects of constructivist learning, depending on which beliefs change. Deep-core beliefs (Sabatier 1988) refer to very fundamental worldviews and values that are extremely stable and very rarely subject to change. These include for example whether a person has a conservative or a leftist political leaning and fundamental views on the role of the state and its legitimacy to limit individual freedom. This theoretical framework regards these very fundamental deep core beliefs as stable and not subject to change and thus less relevant for learning.

The additional aspect that was not mentioned by Sabatier (1988) and later publications (e.g. Weible et al. 2011b) are deeper beliefs such as realising that climate change or poverty are important problems. Individuals or organisations at some point in time form these deeper beliefs, usually when they are confronted with information that makes them form their viewpoint. These deeper beliefs are an important factor in self-sustaining and self-reinforcing policymaking dynamics as they change individual and organisational objectives and create a desire within the individual or organisation to contribute to their solution making use of the means and competencies available to them. Learning in the area of deeper beliefs occurs when individuals or organisations form an understanding that a societal or environmental challenge exists and requires a solution. The deeper beliefs thus facilitate the development of a new or changed ob-

jective within an individual or organisation and can lead to action or a realignment of less stable and more action-oriented beliefs.

Policy design beliefs are based on Sabatier's (1988) conceptualisation. They refer to an individual or organisation's view of what overall direction a policy should take such as the choice of wider policy instruments. For example, a policy design belief would be an individual's perspective on whether the agricultural sector should receive European subsidies or whether renewable energies such as biofuels are an appropriate means to mitigate climate change. How exactly these policy instruments should be designed and implemented falls into the category of *policy detail beliefs*, which are close to the secondary beliefs described by Sabatier (1988). These refer for example to views on how high the share of first generation biofuels in the energy mix should be or whether European agricultural subsidies should depend on environmental services and farmer's compliance with environmental standards.

Both *policy design* and *policy detail beliefs* are less stable than deeper beliefs and more easily subject to change. If an individual or organisation reflects on information and as a result changes deeper, policy design or policy detail beliefs, constructivist learning occurred. To identify such constructivist learning, it is important to compare the individual or organisation's beliefs at the end of the examined time frame to the beliefs at the beginning of the time frame (Radaelli 2009; Sabatier 1988). Figure 6 visualises the typology of learning among policy-makers. It illustrates factual learning with its increase in knowledge, experiential learning with the additional experience and constructivist learning with a change in underlying beliefs. Identifying a change in each of these areas means that learning occurred, whereby they can also overlap with each other and thus exist simultaneously. Both the change in knowledge and in experience can overlap with a change in the underlying beliefs.

Figure 6. Learning typology (change in knowledge, experience or beliefs) and alter-native explanations involved in policymaking. Compiled by author.
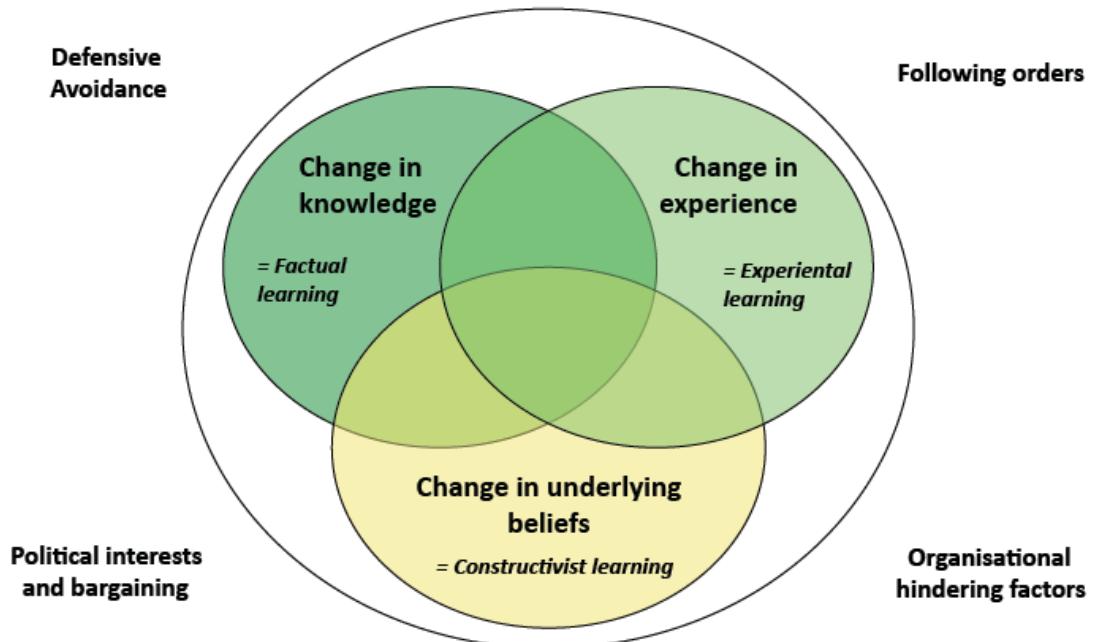
There are several factors internal and external to the policy-maker's organisation or personal way of dealing with a situation that can hinder learning from occurring. Even if learning occurred on the individual level, it is not automatically transferred to the organisational level and ultimately the policy outcome. Although there is stimulation towards increased knowledge, experience or changed beliefs encouraging reflection, the policy-maker might not experience that change. Instead, the policy-maker is preoccupied with organisational hindering factors such as faulty leadership or time pressures, with political interests, defensive avoidance or simply following orders (Janis 1972; Janis and Mann 1977). If individuals did not reflect on input but a policy outcome nevertheless emerged, this points towards alternative explanations. Consequently, the key to determine whether learning occurred is to establish whether the individual decision-maker reflected on the new information and as a consequence changed beliefs, gained new expertise or experience (as defined in 2.1.1).

3.5 Levels of learning

The theoretical frameworks on learning presented in the learning continuum (Figure 4/ chapter 2) are concerned with either individual or collective learning. The literature is split in the area of collective learning along the disciplinary boundaries of organisational learning (e.g. Argyris 1976; Argyris and Schön 1978; March and Olsen 1975), which is concerned with the interaction of learning processes between individual employees and their organisation, and the policy learning literature that predominantly examines the learning of political collectives (e.g. Egan 2009; Farrell 2009; Zito and Schout 2009). The literature indicates that learning can occur on the individual level and the organisational level, whereby wider changes in the socio-political landscape can be relevant to stimulate reflection on an experience or new information, which in turn can result in learning.

Based on the definition provided in chapter 2.1, learning on the *individual level* refers to an individual policy-maker that reflects on input in the form of new information and thus engages in factual learning, in the form of an experience resulting in experiential learning (based on conceptualisations provided by Braun [2009] and May [1992]) and potentially also changes underlying beliefs based on the input and reflection, which can be understood as constructivist learning. The *organisational level* includes the notion of organisational learning linking the individual learning outcomes to a learning process in the organisation and related government institutions in the wider sphere of multi-actor and multilevel governance. Policy entrepreneurs are central actors that can facilitate learning between individuals and learning across the governmental institutions in issue networks, policy communities and coalitions (for previous similar conceptualisations, see Argyris and Schön 1977; Jachtenfuchs 1996; March and Olsen 1975). The organisational level begins where official negotiation positions of for example a governmental institution are formed. Once individuals speak 'on behalf of' their division, governmental ministry, company, non-governmental organisation or country, policymaking takes place on the organisational level. In the case of the EU, learning on the organisational level would for example occur between Directorate Generals of the European Commission, between representatives of the European Commission and the Council as well as the Parliament. Once

individuals do not represent their own personal opinion but a position that was formed to represent an organisation, the learning can be attributed to the organisational level.

A key distinction between the individual level and the organisational level beyond personal opinion is the legitimacy to participate in the political decision-making process, which is not attributed to individuals, but to representatives of a governmental organisation or public office. This is also where the interdependency of these two levels becomes clear. An individual policy-maker holds both a personal opinion which is linked to personal deeper, policy design and policy detail beliefs, but the individual may not be permitted to represent this personal opinion as it does not match the organisation's official position. The organisation's negotiation position however would usually be aligned with its deeper beliefs (i.e. the problem is important to the organisation's purpose and seen as worth dealing with), beliefs on the overall policy design (e.g. whether public funds should address the policy problem) and beliefs on the policy details, such as the credibility of scientific data to justify a certain policy action. Individual constructivist learning is transferred to constructivist learning on the organisational level if the individual succeeds in influencing the organisational position so that it is aligned with the individual's beliefs.

Factual learning within the organisational level occurs when the overall organisation reflects on new input and adds the knowledge to its existing knowledge base such as archives, databases or communicates the knowledge to its employees. Experiential learning within the organisational level is closely linked to the individual level as the employees of the organisation accumulate working experience on certain issues and thus collectively form the organisational experience. If this experience is managed via reports, it can be used after the individual moved on to another position within or outside the organisation. Thus, there can also be a link between organisational learning in the past, when a group of individuals gained working experience on for example a policy proposal and moved on to positions outside the organisation but left detailed records of their experience. New policy-makers engage in factual learning when they reflect on the information left behind by their predecessors and they gain working experience (i.e. experiential learning on the individual level), which in turn is also experiential learning of the organisation once several individuals are involved. This aspect of experiential learning and the link between the individual and organisational level was described in detail by March and Olsen in their 'complete cycle of

choice' (1975: 150) and was picked up by Kim (1993). Argyris' Single and Double Loop Learning (1976) also falls in the category of experiential learning on the individual and organisational level with its focus on error elimination and learning by doing.

The socio-political landscape can be conducive to learning and stimulate reflection on experiences or new information and thus initiate learning processes on the individual or the organisational level. It is the wider sphere of society that is interdependent with the organisational level via politicians and the media, who both influence the public debate and are influenced by it. This can best be described as learning in a landscape development on the meta-level which influences and is being influenced by the government institutions and law making organisations with parallels to Kingdon's (1995) 'public mood' and 'problems stream' that exists and changes over time, whereby policy-makers pay close attention to its development as their re-election depends on it or they strive to serve the public demand. Once voters are convinced that a policy is desirable, this provides a strong rationale for politicians to support the policy development, thus leading to requests from politicians to develop respective policy proposals. On the other hand, civil servants, politicians and non-governmental actors communicate and negotiate in their policymaking networks with each other. They exchange positive messages about the desirability of the policy, creating further momentum for the policy rationale to be widely accepted in a self-reinforcing dynamic. Examples include renewable energy, animal welfare, environmental policy and climate policy integration (Jordan et al. 2010; Urwin and Jordan 2008; Nilsson and Eckerberg 2007).

Thus, to identify learning among decision-makers and especially to determine where learning occurred, it is essential to formally introduce a second dimension to learning. It contains two levels: the individual level and the organisational level, which are strongly influenced by developments in the socio-political landscape. These levels are interdependent with each other. This means that shifts in societies' preferences can motivate the government institutions to address policy problems. As individual civil servants are tasked with the development of a policy that meets the socio-political demands, they engage in their policymaking networks, interact with other policy-makers and potentially transfer a policy from another vertical or horizontal level of governance to their own level (Rose 1991). Thus, they engage in experiential

learning, gain more knowledge in the process and potentially also change their under-
lying beliefs by reflecting on the importance of the policy they have been working on
and form a normative view of how it should be designed (Sabatier 1988).

By developing a new policy and negotiating this policy proposal in the other
government institutions such as in the Council working groups (Goloub 2012) or in
the European Parliament, individual policy-makers can become policy entrepreneurs
by actively promoting their policy proposal and convincing other actors of its import-
ance by repeating arguments, emphasising facts and positive outcomes of impact as-
sessments or scientific studies and using their personal capabilities (Braun 2009; Rob-
erts and King 1991). These activities of individual policy entrepreneurs can result in
convincing other actors within the institutions of the importance to support the policy
proposal by changing their underlying beliefs via an increase in knowledge and higher
awareness of the problems related to the policy proposal. Thus, learning processes on
the individual level can also influence learning on the organisational level.

In conclusion, the three learning types (factual, experiential and constructivist
learning) can occur both on the individual and on the organisational level. Both levels
are independent with each other and are influenced by wider developments in the so-
cio-political landscape. Figure 7 visualises the interdependence of the two learning
levels with their embedded changes in knowledge, experience and/or underlying be-
liefs symbolised through the smaller overlapping circles within each level of learning.

Figure 7. Factual, experiential and constructivist learning on the individual and or-
ganisational level. Compiled by author.
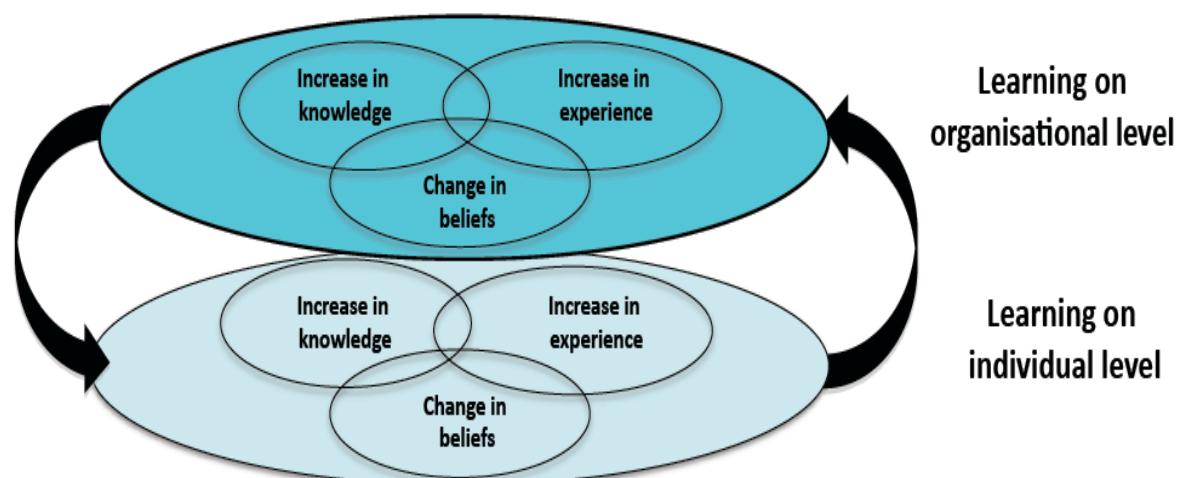
3.6 Is learning reflected in the policy outcome?

Assuming that political hindering factors in parliament, upper house or stakeholders such as lobbyists, public and media do not 'table' the policy proposal based on political bargaining (Arregui and Thomson 2009; Moravcsik 1993; Slapin 2008), an outcome in the form of a change in policy can be observed. This is a policy change that can be measured by comparing the outcome with the former policy dealing with the problem. However, the simple existence of a policy outcome does not imply that learning occurred in the policymaking process, let alone changes in underlying beliefs in the form of constructivist learning. A policy outcome can also be attributed to alternative explanations when policy-makers simply follow orders from higher levels of the hierarchy, responding to socio-political pressures (Janis and Mann 1977), engage in 'classic' bargaining based on political power or when policy entrepreneurs have a high influence on the decision-making process.

Particularly bargaining based on political power and the influence of policy entrepreneurs are two key alternative explanations to the policy outcome, both based on established frameworks of the policy process (e.g. see Kingdon 1995; Sabatier 1998). This is useful to remember as these frameworks explain policy outcomes that are independent of learning. One key factor are policy entrepreneurs who 'push things through' without teaching others or the whole institutional setting. They can either be members of an coalition advocating a certain political objective or 'neutral' power brokers who help the coalitions settle on the lowest common denominator as compromise solution based on bargaining (see Sabatier 1988). The second aspect is political power. If one coalition is more powerful and in possession of the power to arrive at a policy outcome for example by the majority of votes in a parliament or committee, this alternative explanation overshadows learning. Policy entrepreneurs play an important role in arriving at a policy outcome (Kingdon 1995). Once windows of opportunity open as a result of the coupling of the policy, political and problem stream, policy entrepreneurs are crucial in advocating a particular policy proposal. The ability of an individual to act as policy entrepreneur however depends on their readiness in terms of expertise, ideals and proposals:

People who are trying to advocate change are like surfers waiting for the big wave. You get out there, you have to be ready to go, you have to be ready to paddle. If you're not ready to paddle when the big wave comes along, you're not going to ride it in.

(Kingdon 1995: 165).

Policy entrepreneurs are "advocates who are willing to invest their resources – time, reputation, money – to promote a position in return for anticipated future gain in the form of material, purposive, or solidary benefits" (Kingdon 1995: 179). They engage in a number of activities crucial for arriving at a policy outcome: advocating new ideas and mobilising public opinion, defining and reframing problems, developing proposals and specifying policy alternatives and particularly brokering these ideas among the different policy actors (Roberts and King 1991: 148; see also Kingdon 1984; 1995). Thus, policy entrepreneurs play an important role in arriving at the policy outcome. The policy proposals already exist, as does a problem to which they could be attached and learning in the process may well occur; but to arrive at the outcome windows of opportunity and policy entrepreneurs are crucial.

While policy entrepreneurs are members of a certain coalition advocating a policy objective, policy brokers are neutral actors who do not strongly represent their own political objective. Instead, policy brokers are usually high-level civil servants or politicians and have an interest to keep the conflict between actors within acceptable limits (Sabatier 1988: 152). They play a crucial role in 'brokering' a deal and resolving negotiation deadlock situations so that decisions can be reached regarding institutional rules and resource allocations, which ultimately result in policy outputs and policy impacts (Sabatier 1988; Weible, Sabatier, and McQueen 2009: 123). The Advocacy Coalition Framework distinguishes paths for policy change within a policy subsystem. Events external to the subsystem, i.e. on the socio-political or wider organisational level, can result in changing beliefs. Internal subsystem events, i.e. on the more immediate organisational level, can emphasise failures in the current practices of the subsystem (Weible, Sabatier, and McQueen 2009: 124).

Obviously, different actors advocate certain 'solutions' to the policy problem that is being addressed in the policymaking process. While there may be countless different perspectives, they do tend to cluster together in groups of actors who share similar policy beliefs to leverage power in the democratic political process that is

dominated by the need for majorities. The Advocacy Coalition Framework emphasises that such coalitions with diverging beliefs and policy objectives engage within an issue-related policy subsystem, which usually contains one to four such major coalitions (Sabatier and Jenkins-Smith 1993). It assumes that actors group together in 'advocacy coalitions' based on their shared normative and causal beliefs. Actors engage in their advocacy coalition group "in a non-trivial degree of co-ordinated activity over time" (Sabatier 1998: 103). Membership in these groups is open to all actors holding similar beliefs in the policy subsystem including interest groups, government representatives, legislators and members of epistemic communities.

They use different strategies to win over the other advocacy coalitions and achieve decisions by governmental authorities that are in line with their beliefs (Sabatier 1988; Weible, Sabatier, and McQueen 2009: 123). In the case of conflict, it is useful to understand the interest groups as coalitions, whereby the policy outcome ultimately depends on which of these coalitions holds more political power. The more influential group is thus the coalition which is better able to influence the policymaking process based on their policy-oriented, i.e. political learning on how to more effectively manipulate the bargaining or if the coalitions arrive at a deadlock situation, the outcome depends on the intervention of policy brokers. Overall, political power and policy entrepreneurs are important alternative explanations for a policy outcome that may emerge regardless of learning in the policy process.

3.7 Conclusion on the framework for learning in the policy process

In conclusion, the policymaking process can be conceptualised with learning as an important intervening variable. The independent variable is a driver for policy change, which has been conceptualised using key elements of the Multiple Streams Framework and the assumption of policymaking in an 'organised anarchy' that is characterised by multiple actors across different levels of governance. Intervening variables are learning and alternative explanations in the form of defensive avoidance, organisa-

tional and political hindering factors such as opposing political interests and the power of opposing coalitions who succeed in achieving their political objectives. Consequently, the dependent variable of the policy outcome can contain evidence of learning - or alternative explanations may be dominant such as powerful coalitions protecting their political interests, policy entrepreneurs pushing their 'pet topic' through the institutional decision-making machinery or classic, intergovernmental bargaining among the actors aimed at achieving pre-set negotiation objectives.

Table 2 provides an analytical framework for the analysis of learning processes in policymaking. There are two levels of learning: the individual level as identified in the cognitive learning literature and the organisational level. Both are influenced by shifts in the "political mood" (Kingdon 1995), the socio-political landscape. On each level learning processes can occur in the form of changes in knowledge, experience and underlying assumptions. The combination of the two levels plus the socio-political landscape as key independent variable and the four learning types leads to eight possible instances of learning, which can be further extended with the three sub-aspects of constructivist learning and the wider shifts in the socio-political landscape. These can be identified by tracing the behaviour and activities of actors within a policymaking process and asking them about their changes in knowledge, experience and underlying assumptions as well as if their actions resulted in changes within other actors, the institutional or even the socio-political landscape; as well as exploring to what extent their own perspectives changed based on instructions from higher levels of hierarchy, interactions in networks and wider societal consensus.

Table 2. Analytical framework to determine and measure the type of learning that occurred on the individual and/ or organisational level. Compiled by the author.

	Alternative explanations for the outcome	Factual learning (change in knowledge)	Experiential learning (change in experience)	Constructivist learning (change in underlying deeper, policy or policy detail beliefs)
Individual level				
Organisational level				

This framework of learning in the policymaking process borrowed aspects from Kingdon's MSF (Kingdon 1984; 1995) to situate the driver for policy change and from Sabatier's ACF for alternative explanations to learning such as the power of advocacy coalitions in the policy process and the role of policy brokers intervening to resolve conflicts. This explains policy outcomes despite a lack of learning. In its learning components this framework borrowed from Argyris' single-/ double loop learning (1976; Argyris and Schön 1978) and the 'learning cycle' from March and Olsen (1975) and adopted these to the policymaking process. The key elements are the reflection on an input, the development and testing of a trial solution and the spill-over of learning to the organisational level, which is crucial for a policy outcome to emerge. It is however important to emphasise that this framework does not apply or situate itself within any of these 'mother concepts' but only borrows key aspects from them that help explain learning in the policymaking process, which none of them comprehensively do. The following chapter discusses the research methodology used for the collection and analysis of the empirical data.

Chapter 4
Research Methodology

This chapter introduces the empirical part focused on identifying learning in European climate policy integration via case study research and process tracing. This research takes a deductive approach, that empirically applies the meta-theoretical learning framework to two case studies on climate policy integration: the European Renewable Energy Directive as aspect of energy policy and the Greening of the Common Agricultural Policy as aspect of agricultural policy. The first section explains the research design and justifies the methods used, while the second section explains how the data was analysed.

4.1 Research design

The research design follows a case study approach (Gibbert, Ruigrok, and Wicki 2008; Yin 1994; 2009). It tests the previously developed meta-theoretical framework introduced in chapter 3 to identify learning in the policymaking process. This section justifies the use of case studies and process tracing to answer the research questions.

4.1.1 Case study approach and process tracing

There is a clear rationale for a qualitative case study approach using process tracing, which is the dominant and established method of approaching learning in policymaking and has been used by most empirical studies introduced in the previous chapter. The only exemption was Montpetit (2009), who asked government representatives about their learning using a survey. The other option, a quantitative analysis of learning, has been attempted by Sommerer (2011) on the question whether states can learn from each other. In his method section, he concludes that

> given unavoidable simplifications, even precise econometric methods will never be able to provide sufficient evidence for the occurrence of learning. At best indications can be provided for the existence of patterns and correlations that could be interpreted as hints for learning processes with the help of theoretical frameworks. This is because the data does not allow including information into the analysis on causes of cognitive processes and motives for learning.

> (Sommerer 2011: 95-96; translated from German language by author)

Consequently, this thesis follows the existing empirical literature on learning in its research approach as this allows adhering to the established research standards. DeVaus emphasises that "case study designs are particularly suited to situations involving a small number of cases with a large number of variables, [thereby making the approach] (…) appropriate for the investigation of cases when it is necessary to understand parts of a case within the context of the whole" (DeVaus 2001: 231). The large number of variables and the complexities on the micro-level suggests an in-depth case study approach that traces the conditions for the core types of learning throughout the process of policymaking to determine if and how different actors learn. The case study design facilitates the inclusion of the large number of variables and facilitates the understanding of learning in climate policy integration on the micro-level without losing the overall big picture (DeVaus 2001; Yin 1994). The central criterion for selecting a suitable case study is that it provides a valid and challenging test of the initial theory, i.e. theoretical sampling (DeVaus 2001; King, Keohane, and Verba 1994).

One methodological core question is how learning can be detected in climate policy integration or in any other policy. The most appropriate approach to identifying learning is to process trace the development of one policy, in this thesis the Renewable Energy Directive and greening in the Common Agricultural Policy, from their origin throughout the policy formation process in the European institutions and to identify learning processes that occurred on the individual and organisational level influencing the development of the policy. This 'process tracing' is used in political science to determine the influence of actors on a certain policy (e.g. by Betsill and Corell 2008; George and Bennett 2005; Kittel and Kuehn 2013; Tansey 2007). George and Bennett define process tracing as "attempts to identify the intervening causal process – the causal chain and causal mechanism – between an independent variable (cause) and the outcome of the dependent variable" (2005: 206). Process tracing has recently received more attention in the academic literature (e.g. Collier 2011; Deters 2013; Hall 2013; Rohlfing 2012). In this thesis it serves the purpose of testing the meta-theoretical framework on learning, but the research does not have the ambition to generalize the specific case study findings to a large population. The generalizeability based on external validity (Kittel and Kuehn 2013) is rather in the applicability of the framework, which identifies different patterns of learning across cases.

Process tracing seeks to examine causal relationships (Collier 2011; George and Bennett 2005; Hall 2013) between the variables. It allows to identify what type of learning occurred at which state of the policy formation and policymaking process by asking the different actors involved about their changes in knowledge, experience and underlying beliefs as well as why these changes occurred and what or who has led to those changes. The learning processes can be identified in the interviewee's answers and compared with the answers of other interviewees the first interviewee interacted with in the policymaking process (Betsill and Corell 2008; George and Bennett 2005). This also allows to pinpoint when in the policymaking process individual actors learned or did not learn based on the categories of learning identified in the theoretical framework.

4.1.2 Scope of the case studies

Qualitative research based on case studies needs to be limited to a realistic temporal and issue-related frame that allows a thorough analysis and is yet finite in scope (Creswell 2009; King, Keohane, and Verba 1994). Tracing learning along the policy-making process of a specific piece of legislation provides advantages in terms of depth and clarity with a clear temporal start and end point, e.g. from the first prompt to policy-makers in the European Commission to develop a policy to the final decision in the European Parliament and Council. It also limits the number of key actors involved and allows mapping out the conditions for learning in relation to the external circumstances. Two core factors to control for are the influence of lobbyists when decision-makers only adopted their position, and classic bargaining as it occurs in negotiations, especially where national or vested interests are involved (see also Moravcsik 1993). The analysis differentiated if a policy change occurred due to learning, especially in the case of constructivist learning, or if the change could be traced back to the influence of other actors, to power-relationships or bargaining central to negotiations.

However, there were also disadvantages to this approach. Narrowing down the analysis to one specific case of policymaking could have led to difficulties in tracking down the relevant actors for interviews, who might have been unavailable or unwilling to share their insights. Furthermore, there were potential research ethical considerations involved in safeguarding the anonymity of the interviewees, as there were frequently only a handful of individuals involved on certain stages of the policymaking process. There were a number of situations when learning could have potentially occurred, however it depended on certain conditions and reactions of the policy-makers involved. Using only one case study would have meant that the research would have likely missed out on generally relevant factors and conditions for certain learning types to occur only because they were not present in the specific case examined. For this reason, the empirical part of the thesis was based on two case studies with different determinants that cover the spectrum of climate policy integration.

The Renewable Energy Directive with its biofuel component and the greening of the Common Agricultural Policy were selected as case studies as they were among the few existing empirical examples of climate policy integration. Furthermore, both

were major flagship legislations that were part of a longer policy development, which allowed a process tracing of learning over more than a decade. This is the time emphasised by previous studies as appropriate frame for meaningful results (Radaelli 2009; Sabatier 1988). The European Renewable Energy Directive (EU 2009a) is furthermore a major component of the European Climate Package (Townshend et al. 2013) and much like the Common Agricultural Policy a major flagship policy of global interest and impact.

4.2 Research Methods

The following section explains in detail how the data was collected and analysed. The data collection used qualitative methods and predominantly elite interviews to process trace learning through the case studies and identify when and why it occurred. The second part explains how the data was analysed and the third part reflects on the challenges encountered and how these were addressed to ensure validity of the results.

4.2.1 Data collection

The research strategy was not divided into the classic clear distinction between data collection and data analysis but favoured the sequential approach proposed by King, Keohane and Verba (1994). This approach uses several stages of data collection, followed by data analysis and conclusions that form the basis for refined and more targeted data collection in sequential cycles. The qualitative methods literature suggests that a sequential triangulation approach leads to more precise and theoretically valuable research results than a 'one-shot' approach (Esterberg 2002; Miles and Huberman 1994; Patton 2002). Before the actual data collection period that focused on interviews, the author conducted a scoping phase over three months of observing interactions between policymakers on the European level in the form of working with the

European Commission in the Directorate General for Climate Action as trainee in the organisational unit dealing with climate finance and deforestation (October – December 2011). This background knowledge serves as validation baseline for the information collected in interviews and through document analysis. It enables the researcher to compare the information of interviewees with previous experience and observations of learning in the policymaking process. All data reported in this thesis is however based on the interviews conducted in 2012-2013 and document analysis.

Elite Interviews

The primary data sources are in-depth semi-structured interviews with the key individuals involved in the policymaking process. The research presented in this thesis is based on 72 elite interviews with 66 key actors between March 2012 and August 2013. This number is close to the total population of individuals deeply involved in the relevant policymaking processes, whereby 8 individuals were involved in both the Renewable Energy Directive and the Common Agricultural Policy and 6 individuals had different roles and institutional affiliations during the time frame, what made the assignment of different codes to the same person necessary (e.g. Member State and industry or MEP and NGO). All interviewees who responded positively to the interview request or reminder were interviewed. Particularly Members of the European Parliament and a few high level policy-makers at the European Commission declined due to a lack of time. Some actors could not be contacted as they had left their positions without a trace/ contact details or were deceased.

The interviewees were representatives from the European Commission (Directorate General/ Cabinet for Agriculture and Rural Development, Directorate General for Environment, Directorate General/ Cabinet for Climate Action and Directorate General/ Cabinet for Energy and Transport), environmental NGOs, industry lobbyists, Members of the European Parliament from green, liberal-democrat, conservative and social-democratic parties and their advisors, as well as representatives from relevant member states such as Austria, Bulgaria, Finland, Germany, Hungary, Italy, the Netherlands, Portugal, Spain, Sweden and the United Kingdom. The sampling was based on identifying who was involved in initiating, drafting, negotiating and deciding on

on the legislative proposals. All relevant actors were sent interview requests and those who responded positively were interviewed, predominantly in a one-on-one meeting in their office and on rare occasions via skype/ telephone when a meeting was not possible. Following the initial round, interviewees were asked about other key actors allowing snowballing to a high level of saturation.

Each interview lasted between 30 and 110 minutes with a mean of 60 minutes. All interviewees were sent an information sheet on the research with the initial interview request. At the beginning of the interview, the researcher explained the purpose of the interview as part of PhD research conducted at the LSE and agreed with the interviewee that the interview data would be treated anonymously to the extent that the information could not be traced back to the individual. To encourage an open and honest conversation, the interviewees were offered the option to declare comments as 'confidential' or 'off the record' during the interview, whereby few interviewees made use of this. When they declared information as confidential, it had frequently already been provided by other interviewees without this restriction or was already part of the public domain. Following this agreement, the interviewee was asked for permission to audio record the interview. All interviewees gave their permission.

The audio-recordings from these elite interviews were transcribed. The researcher transcribed all interviews from key decision-makers and all those containing confidential information, while time pressure and opportunity costs made the use of a certified transcriptionist who signed a non-disclosure agreement necessary to transcribe interviews of lesser relevance/ from individuals only involved in some aspects such as NGOs, lobbyists or representatives of member states in the Council working groups. To gain reliable results and to allow for improvements of the research design, interviews were made in concurrent order, i.e. interview data was collected over a certain time period such as a week or in blocs of several interviews (e.g. 10-15 interviews). Before the next round of interviews, the data was reviewed and analysed. If patterns emerged that were not considered previously in the analytical framework, these were included in the next round of interviews as additional hypotheses to be tested, validated or discarded. Elite interviews were conducted with relevant actors until no new information was gained through subsequent interviews and the researcher had indications that the sources had been exhausted. The questions asked followed the analytical framework as they aimed to identify learning in the policymaking cycle.

Interview questions

The interviews were a semi-structured conversation between the researcher and the interviewee. The interviewees were asked to provide a detailed account of their involvement in the policy development including their educational background and previous experience on the issue to determine their level of expertise. It also helped to establish a conversation and put the interviewee at ease. Furthermore, this helped the researcher to ask more targeted/-individualised questions later on. These introductory questions served the purpose of identifying possible instances of learning on the individual or organisational level, which were then explored more in-depth. This part took anytime between 10 and 50 minutes, depending on the interviewee. Some interviewees automatically answered all possible questions and it was thus helpful not to interrupt them, while others provided short, precise answers. Here it was important to keep the conversation going with follow-up questions.

The next part provided the core information for the analysis. The researcher indicated that the following questions might be unconventional compared to questions the interviewee may usually get from journalists and that this is due to the overall research question. The questions focused on the three types of learning across the learning levels and on alternative explanations. They were rephrased to be more easily comprehensible for the interviewee. Frequently conversational pointers sufficed to prompt the interviewee to talk about these aspects. The interview questions were intended to cover as many aspects of the meta-theoretical framework the interviewee was knowledgeable about. Thus, the key areas covered were related to the question when factual learning, experiential learning or constructivist learning occurred or if there were alternative explanations. Interview aspects in this part were:

- Did the interviewees change their level of knowledge or gain more experience while being involved in the policymaking process?
- Did the interviewees change their perception of the issue through reflection?
- How did the interviewees approach other actors, did they convince them and how? In other words, was there a policy entrepreneur?
- Were there other actors that took on a very active role, pushing the policy proposal forward? Why did they do that?
- How did the decision-making process between the key actors and institutions unfold? Were there knowledge transfers/ experience exchanges/ did one insti-

tution convince the other based on persuasion and changes in beliefs due to evidence or previous experiences (learning on the organisational level)?

- What were the (political) interests of the actors involved?
- Were there any factors that hindered reflection and subsequent changes in knowledge/ experience/ beliefs?
- Was it just negotiation/ bargaining, political horse-trading/ quid-pro-quo or did actors convince each other using persuasive arguments?
- Did the overall support in society for the policy change over time? How? Why? What was the role of the media/ other external actors? How was the European Commission involved?

The final part concluded the interview by letting the interviewees reflect on their own and others' learning processes. The researcher explained the analytical distinctions of learning in terms of changes in knowledge, experience and/ or underlying beliefs (how the interviewees' perspective on the issue changed) and linked those to the individual level (i.e. the interviewee or colleagues in the immediate work environment), the organisational level (i.e. between the interviewee's DG and other DGs, between the DG/ European Commission and the Parliament/ Council) and to wider shifts in the socio-political landscape as potential driver for learning (i.e. wider social perceptions of the policy issue, also influenced by the media). Depending on the situation and the interviewee's previous responses, alternative explanations were also considered. How the question was framed depended especially on the interviewee's bias either in favour of learning or opposed to it. In either case, questions were framed from the opposite direction to control for potential interviewee bias. At the end the researcher thanked the interviewee for taking the time and exchanged contact details or followed up on suggestions regarding other key individuals involved.

Document analysis

To test the theoretical framework and further develop the conceptualisation of climate policy integration, the first step was to analyse the available grey literature regarding learning and climate policy integration (e.g. Ahmad 2009; Medarova-Bergstrom et al. 2011; Mickwitz et al. 2009). The document analysis included but was not limited to reports, records of speeches and debates, committee reports, white and green papers, policy briefs from experts, civil society representatives and lobbyists as well as a re-

view of the organisational structure within the European Commission, the European Parliament and the Council (see bibliography/ empirical chapters). Document analysis served as supplementary method of data analysis. Especially the legislative proposals and further material such as impact assessments and stakeholder statements were analysed to gain a background understanding of the case studies on the Renewable Energy Directive and the Common Agricultural Policy.

4.2.2 Data analysis

The qualitative research approach yielded a richness of interview data. All interviews were recorded digitally and transcribed as to the level of detail required, usually verbatim but without stutters. In a few cases interviews were conducted in German. These were transcribed in German, however translation was only undertaken to the extent of providing relevant information or quotes to be included into the thesis. The collected data was stored in a data basis. As research ethics demand that the names of the interviewees must not be revealed, the coding-key regarding the identity of interviewees was only shared with the supervisors. The option remains to make it available for validation to examiners under the condition that the identity of the interviewees is kept confidential.

The interviews were analysed using the qualitative software programme NVIVO and highlighting/ colour coding functions in a comprehensive word document, which was compiled for each case study. The information was compared and triangulated, i.e. whether the 'stories' of the key actors matched. A relevant limitation preventing descriptive quantitative analysis was that each actor experienced a specific part of the process from a specific angle and only contributed a 'piece of the puzzle'. Thus, there was no benefit in using structured questions that would have made the interviews comparable to each other as all interviewees reported on their distinctive role within the policy making process, which rarely covered its full development over a decade. Thus, the narrative was process traced and to verify and triangulate the accounts of interviewees, the researcher indentified and interviewed other individuals who worked closely with previous interviewees. A further control measure was the validation of information from the elite interviews via document analysis.

The data was coded based on a comprehensive codebook developed by the researcher. The codebook was a direct application of the meta-theoretical framework developed in the previous chapter and allowed linking interview data and quotes to the learning types and further conditioning factors. The presentation of the findings may appear to be disconnected from the codebook given that findings are not descriptively reported. As this type of analysis would have resulted in a rather undesirable descriptive account of how many times codes were mentioned by the interviewees, the researcher opted instead for presenting the findings in an analytical narrative organised into sections on learning types (see empirical chapters 6 and 7). Thus, first dominant codes such as experiential and factual learning among individuals, the role of policy entrepreneurs or wider changes in the socio-political landscape were identified via the codebook. In a second step, the relevant quotes were combined into another document, which served as basis for presenting the empirical findings within distinctive story lines. Table 3 provides a brief summary of the categories used in the codebook, which can be found in appendix 1.

Table 3. Summary of coding categories used for the empirical analysis.

Code	Definition	Inclusion criteria	Exclusion criteria	Examples	Corresponds to learning type
Key concepts and aspects of learning					
Receive information					
Reflection					
Change					
Individual level					
Organisational level					
Socio-political landscape					
Factual learning					
Experiential learning					
Constructivist learning					
Learning (reflection on input and subsequent change)					
Knowledge					
Experience					
Underlying beliefs					

Alternative explanation (reflection on input, but no change)		
Political interests		
Following orders		
Institutional process of policy-making		
Negotiation/ bargaining		
Lobbying		
Non-Learning (no reflection on input, no change)		
Defensive avoidance		
Group think		
External constraints		
Conditioning factors with positive/ negative effect on learning types		
Academic background		
Working experience on topic		
Leadership style of superior		
Network to other actors		
Policy entrepreneur		
Institutional capacity		

Compiled and developed by the author. See Appendix 1 for the full codebook.

4.2.3 Challenges and limitations to the research strategy

Some of the more specific challenges during the data collection phase have already been outlined in previous sections. This section deals with the central limitation of this research, which is its scope/ generalisability in terms of case studies, the limitations dictated by research ethics, temporal bias and dealing with interviewee bias.

Resource and time limitations

The theoretical framework of the learning process and how policy-makers learn can be tested in many different cases, with climate policy integration being one especially interesting case given its cross-cutting nature. The meta-theoretical framework can also be applied to any other kind of policy. It would be beyond the scope of this re-

search to test learning in other policies such as foreign or fiscal policy. Furthermore, it is also due to time and budget constraints that climate policy integration in energy, transport and agriculture policy is only being analysed in the EU and not on other levels of governance, whereby particularly multi-level reinforcing processes between the national and international level provide an interesting case within global governance (e.g., see related paper on the UNFCCC negotiations: Rietig forthcoming 2014b).

Research ethics

The LSE research ethics checklist (LSE 2011) indicated the need to address issues of confidentiality and documentation of the research data as elite interviews may yield sensitive information that could be harmful to the interviewee if published in direct relation to the person's name. The primary safeguard is the researchers' experienced judgement in those matters and commitment not to harm the interviewee. The interview data was coded and names or references that allowed indentifying the person were removed to safeguard their anonymity. If identification could not be avoided, the result was not included into the reporting. Every interview was conducted after obtaining informed consent from the interviewee, what involved the agreement that information identified by the interviewee as sensitive information would not be included into the interview transcripts. The data was stored safely (password protected and not vulnerable to theft, accidental loss or commercial third-party data privacy violations) and access was restricted to the researcher and supervisor. Some of the interviews without confidential information were transcribed by a transcriptionist who signed a non-disclosure agreement (no communication/ dissemination of the information, deletion of all records after the submission of the project).

Temporal bias

The nature of research interviews requires individuals to recollect and remember their experiences with a certain activity that happened in the past. This makes research interviews vulnerable to temporal bias by the interviewees. Particularly in cases where the involvement of interviewees was several years in the past (e.g. those involved with

the 2002/2003 Fischler Reforms of the Common Agricultural Policy or in the drafting of the Renewable Energy Directive 2006 – 2009), a potential bias remains that individuals did not recall details and facts correctly or that they were rather providing their personal, biased interpretation of perceptions and changes in beliefs than their actual learning at that point in time. Furthermore, later experiences that are directly or indirectly related to the topic of the interview may also have unconciously altered the interviewees' response to the questions.

This temporal bias is a challenge to all research interviews enquiring about personal experiences that happened several years ago. The researcher addressed this temporal bias directly prior to the interviews by sending a note that indicated the researchers' interest in the interviewee's involvement in the relevant policy. To prevent the interviewees however from re-interpreting their involvement prior to the interview, no detailed interview questions were provided beforehand. This required the interviewee to react spontaneously to the interviewer's questions, which in most cases yielded straightforward and plausible answers. Furthermore, the researcher triangulated the interviewee's answers in the analysis as much as possible with similar accounts by other interviewees to determine whether their accounts matched. As the quote in the next section indicates, some interviewees may however have underestimated their personal and their organisation's learning in the interviews as a result.

Interviewer and interviewee bias

Besides the influence of communication and interpersonal skills in posing questions during semi-structured interviews (Graves 1993) and the importance of rigour in interviews (Baxter and Eyles 1997), the attitude and expectations of the interviewee played an equally important role. Especially if the interviewees were interested in the research project and intrigued by the prospect of contributing to the development of a framework that allows identifying learning, which in turn might help them to design and implement more effective regulation, they may have unconsciously tried to provide disproportionally positive information. This phenomenon of learning as positive evaluative connotation is well known in the literature. Nye pointed out that "when the observer approves of the new conception of self-interest, it is called 'learning'; disliked changes are not" (Nye 1987: 379). However, learning occurs independent from

the value judgement of the observer and depends solely on whether the definition of learning introduced in chapter 2 is fulfilled.

This interviewee bias was controlled for by being aware of this issue and by using a negatively framed hypothesis that defensive avoidance may be dominant when initial answers suggested a positive bias towards learning. This hypothesis required critical questions targeted at identifying alternative explanations and hindering factors. Thereby the negative framing helped to provide a fuller picture of the examined cases. However, the overwhelming majority of interviewees was rather critical of interpreting too much learning into the policymaking process and sometimes required positive pointers to identify instances of learning. Because of this de-facto negative bias, the researcher kept reformulating the questions on learning to determine whether there are some aspects after all that may be classified as learning. Furthermore, the experience gained during the scoping phase of the research within the European Commission enabled the researcher to compare the information provided with direct experience and thereby to make an educated judgment whether the information was accurate.

Another source of bias was the potential impact the interview itself had on the policy-makers. Many commented after the interview informally that they usually do not reflect on whether they learned, why certain decisions were taken and how they came about. Therefore, there is a possibility that the interview questions also led to a reflection process of policy-makers on their own learning or a wider evaluation of the dynamics within the policymaking process as a basis for lesson-drawing in the future:

> Through the conversations back and forth, I was more aware of incidences of learning if you like than I was before you first called. I was slightly intrigued by your topic because I was thinking "well there wasn't a lot of learning at all." I mean now thinking about it a little bit, between member states, certainly, I think was a lot more than what perhaps we originally realised. Certainly there were some individuals that were more influential than others, but I think the learning was more subconscious than conscious though. You see what I mean? I'm not sure we all went into it with a "well if we learn from each other, we could get the best out of it." I think a lot of it was more subconscious.

(NMS 10)

4.3 Conclusion on the research methodology

This methodology chapter provided a detailed account of the research design and strategy for determining learning among policy-makers in European governance. The research design identified the qualitative case study approach as appropriate for testing the meta-theoretical framework presented in chapter 3 and discussed issues of ensuring rigour. It also introduced the research strategy for data collection. The final section discussed challenges such as safeguarding the interviewee's anonymity, limitations to data collection and further research ethical considerations.

Following the typology established by Yin (1994; 2009) and Gibbert/Ruigrok/Wicki (2008) of internal and external validity, construct validity and reliability, the research design was adapted to meet these criteria. Internal validity refers to the causal relationships between the variables (Gibbert, Ruigrok, and Wicki 2008: 1466) and is met as the research framework was developed based on existing literature and theories were triangulated from different theoretical lenses. The discussion sections of the case studies furthermore match the patterns found in the case studies to the meta-theoretical framework.

The construct validity, i.e. if the case study measures what it seeks to measure (Gibbert, Ruigrok, and Wicki 2008; Yin 1994), was challenging and has been given particular consideration during the data collection stage. Three measures suggested by the research literature (Gibbert, Ruigrok, and Wicki 2008; Yin 1994) were used to achieve a construct validity as high as possible within the time and budget constraints of this research. First, the chain of evidence presented in the empirical chapters follows a timeline of how one specific policy was developed. This allows to process trace the development of the legislation between the actors involved and to identify instances of learning. Second, the data and conclusions of the research were reviewed by academic peers (via conference papers and workshop-/ research seminar presentations) and also discussed with key actors, whereby both the peers and the key actors confirmed the analysis and conclusions. Third, the primary interview data was triangulated with supplementary data from document analysis.

The external validity, i.e. the generalisability of the findings was best ensured as possible within the constraints of qualitative case study research. The case studies

were selected within a 'nested approach' (Gibbert, Ruigrok, and Wicki 2008: 1468), i.e. both case studies were within the EU and involved the European Commission, the European Parliament and the Council. This allowed comparing the findings within the context of European governance and drawing conclusions on learning in the EU. While the findings retain a limited generalisability due to the nature of qualitative case study research (which is certainly one of its greatest limitations), the empirical findings allow conclusions on the wider applicability of the meta-theoretical framework on learning as it can be applied in the context of European governance, but also in case studies that contain a policymaking process dominated by governmental actors in a system of complex governance.

Reliability refers to the reproducibility of the research and the results (Gibbert, Ruigrok, and Wicki 2008) by other researchers. The triangulation and wide sampling approach taken in this thesis remedied most randomness associated with one-on-one elite interviews, which are ultimately about personal accounts of events and perceptions. The cross-comparison of the interview data across the actors and the triangulation with official documents allowed to control for personal bias and randomness, i.e. that the interviewees might have told a different story to another interviewer or at another point in time. The research is reproducible since the question catalogue detailed in this chapter should provide an appropriate basis to extend or repeat the interviews. It is furthermore important to note, similar to the external validity, that the wider contribution of this research is less in its detailed empirical findings, but in the meta-theoretical framework presented in chapter 3, which should allow other researchers to examine other cases of policymaking and to identify learning in the policymaking process. The next chapter zooms in on the empirical aspects of this research, which focuses on learning in European climate policy integration. Therefore, the next chapter introduces the policy making process in the EU and examines the concept of climate policy integration.

Chapter 5

Introduction to case studies:
EU governance and climate policy integration

How does learning matter in European governance, particularly in the emerging pol- icy field of climate policy integration? To answer this empirical research question, it is important to understand the particularities of the case study area. This chapter contextualises the empirical research on learning in climate policy integration within the EU. It explains the key underlying governance principles of the EU, the policymaking process among the European institutions and conceptualises what climate policy integration means, which in its conceptual and empirical development has widely focused on the EU. The rationale for focusing on the EU is its self- understanding as a leading actor in global climate governance (Jordan et al. 2012) with advanced climate policy that is primarily motivated by the need to implement international commitments such as the Kyoto Protocol. In addition, the EU provides two of the few existing empirical cases for climate policy integration in the form of the Renewable Energy Directive and the greening of the Common Agricultural.

5.1 The policymaking process in the EU and key actors

This section provides the context for examining learning in the EU, which is a complex system of multiple layers and venues of governance with diffuse leadership structures. The process of European Integration resulted in debates on the character of the EU between the extremes of a collection of nation states (Moravcsik 1993) and a semi-federal system (Nedergaard 2006a), while particularly the Lisbon Treaty (Craig 2010) moved the EU closer to the latter characteristic. Undoubtedly, it is a system of complex multilevel governance (Jordan 2001; Jordan et al. 2012) that, like any political system, holds its own unique particularities that need to be acknowledged before the results of the empirical analysis can be interpreted and examined for their wider lessons. This section examines the policymaking process in the EU and the role of the European Commission as key actor.

5.1.1 The policymaking process in the European Union

The process of policymaking in the EU is a negotiation process among multiple actors representing the local level and political parties (European Parliament), the national level (Council of the EU and its Council system such as working groups, meetings of the permanent representatives/ COREPER etc., referred to as 'the Council') and supranational level (European Commission). The negotiations are iterative and begin with an initial motivation at the European Commission as the institution with the sole power to make policy proposals (Hix 2005; Nugent 2001). This motivation can include a request from the European Parliament, the Council or input by external stakeholders such as interest groups or individual member states. It can also be internal to the European Commission at the initiative of a Commissioner or a member of staff, mostly within the unit that is responsible for the respective policy area (Sabathil, Joos, and Kessler 2008). At the drafting stage of the policy proposal, the unit in charge

within the European Commission frequently commissions studies, organises meetings with experts, takes into account information provided by relevant stakeholders including lobbyists and undertakes impact assessments of different policy options (Nugent 2001). Depending on the exact nature of the policy proposal and the administrative culture of the Directorate General, this process has a varying level of formality. Following this early drafting and policy formation stage, the Directorate General of the European Commission that is in charge of the policy proposal needs to coordinate with other Directorate Generals that have similar or diverging interests within the 'Interservice Consultations'. In this process, other Directorate Generals formally provide their input. The policy proposal is then negotiated by the Heads of the 27 cabinets (HEBDO meeting) and finally decided by the 'College of Commissioners', which includes all 27 European Commissioners in charge of their different issue-based portfolios (Hix 2005; Hooghe 2001). If agreement is difficult to reach, the President of the European Commission or his secretary general intervenes as policy broker to suggest a solution (Nugent 2001: 243).

The European Commission publishes its policy proposal, which is subsequently negotiated among the member states in the working groups of the Council of the European Union. If the policy proposal falls within the remit of co-decision, the European Parliament's issue-specific committee discusses the proposal before its vote (for a detailed description of the concept of co-decision, see Häge and Naurin 2013; Huber and Shackleton 2013). Representatives of the European Commission participate in all meetings to answer questions and facilitate the negotiations. If no consensus can be reached, a 'trilog' between key actors representing the European Commission, the European Parliament and Council is initiated (Hix 2005; Nugent 2001; Rasmussen and Reh 2013). This negotiation and policymaking process is based on agreement among key actors that include civil servants at the European Commission and those representing their member state's national interests, as well as politicians in the European Parliament and Council.

Overall, the power of the European Parliament has been strengthened with the recent treaties, especially the Lisbon Treaty (Craig 2010). The role of the European Commission has increasingly moved towards a facilitating and brokering position within the "triangular interinstitutional relationship" (Nugent 2001: 261; for a more detailed description of the European policymaking process, see Nugent 2001: 234-

261). While the debate between (neo-)functionalism and intergovernmental perspectives on European Integration dominated the second half of the 20th century (see Moravcsik 1993; Risse 2005), more recent contributions argued for multilevel governance approaches and concluded that the use of public policy literature is appropriate in analysing the EU policymaking process (Hix 2005) due to "the fact that the EU political system has become more and more a 'normal' political system" (Nedergaard 2006a: 394). While the European Parliament represents the interests of European citizens via its elected Members belonging to national political parties in a similar fashion to national parliaments (Egeberg et al. 2013; Marshall 2012) and the Council represents the national interests of the member states from an intergovernmental perspective (Beyers 2005; Häge and Naurin 2013; Warntjen 2010), the European Commission's role in policymaking is more complex (Egeberg 2012).

5.1.2 The special role of the European Commission as policy entrepreneur

The European Commission has a significant steering role in the policy process and – although its 'formal' role ends with the publication of a policy proposal – also a large influence on the policy outcome, making it "the world's most powerful international executive" (Hooghe 2012: 88). While intergovernmental approaches downplay the supranational characteristics of the European Commission's bureaucracy (e.g. Moravcsik 1993) and point towards the interests of the member states instead, empirical studies of the 1990s concluded that the European Commission can be understood as a 'policy entrepreneur' that plays a leading and even steering role (Cram 1994; Krause 2003; Hooghe and Keating 1994; Laffan 1997). This role links back to the European bureaucracy's origins and the visions of Jean Monnet:

> He envisaged European administration as a small body of officials from different backgrounds who would work together to produce solutions to common problems (…) and maximise the chances of survival and influence in a world of entrenched bureaucratic interests.

(Page 1997: 5)

The power of the European Commission stems from its political role that includes the unique competence to initiate EU legislation and the need to persuade other groups and stakeholders before proposing legislation with the intention to have a high chance of being adopted with as few changes as possible (Page 1997: 146-147). The European Commission's leadership role and its key objective of driving European Integration forward towards an increasingly closer Union (Hix 2005; Hooghe 2001; Nugent 2001) is widely acknowledged in the European Integration literature.

The European Commission is frequently treated as an unitary actor given its role based on the treaties (Koch and Lindenthal 2011) with little attention to the interplay of the different Directorate Generals or even the individual bureaucrats as key policy-makers. This argument has two dimensions. First of all, upon a closer examination of the European Commission, a bureaucracy emerges that has not only unique characteristics, but also remains to share elements with both continental national bureaucracies and international bureaucracies while at the same time having no clear leading figure but many points of exercising leadership (Page 1997). The different Directorate Generals with their specific policy areas can be compared to national ministries whereby each takes the lead in developing policy proposals within their own area of competence. This needs to be shared in cross-sectoral policies that involve two or more Directorate Generals, while one maintains 'ownership' of developing the policy proposal (Nugent 2001; Sabathil, Joos, and Kessler 2008).

The second dimension is the role of the individual bureaucrat, both on the top level as Commissioners appointed via elected politicians, and the individual civil servant. Both types of actors within the European Commission have been found to act as policy entrepreneurs, going to extraordinary lengths to steer their policy proposals through the decision-making process and to strategically use aspects of leverage within the institutional machinery to achieve their objectives (Braun 2009; Skjærseth and Wettestad 2010; Wonka 2008). In this context it is important to note that the "goals, objectives and even strategies of those who participate in decision making are influenced heavily by their organizational affiliation and position" (Page and Wouters 1994: 446). Recent studies also emphasise the central role of individuals at other positions of coordinating power than the European Commission such as the rapporteurs in the European Parliament (Egeberg et al. 2013; Marshall 2012; Huber and Shackleton 2013) and the presidency of the Council. This indicates that the earlier findings from

the 1990s remain relevant for current policymaking after the Lisbon treaty (Craig 2010) entered into force.

These findings point towards a notion of 'collective leadership', which appears to be based more on a shared 'institutional objective' linked to individual's organisational affiliation and current position as well as shared beliefs about the overall policy objectives and wider goals of the organisation, which is the deepening integration among the member states towards a supranational polity with "semi-federalist character" (Nedergaard 2008: 180) as envisaged by the EU's founding fathers. The shared belief among most civil servants at the European Commission and its overall objective is to serve the common good of Europe and to further European Integration. In the interinstitutional triangle of the EU institutions, the European Commission has traditionally been described as supranational actor, whereas the member states represent the intergovernmental pole via the Council:

> Since Ernst Haas' *The Uniting of Europe* (1958), the history of European integration has been perceived as a contest between two fundamentally different strategies for collaboration in Europe: intergovernmentalism and supranationalism. (…) The protagonists in this ongoing play have long since been identified: the member states defending national sovereignty on the one hand, and the European Commission guarding the common European interest on the other (…) [leading to the view] that the European Commission has an institutional interest in advancing supranational empowerment.

<div align="right">(Hooghe 2001: 95-96)</div>

However, detailed research on the beliefs of representatives of the European Commission across multiple levels of hierarchy arrived at a picture consisting of a triangle between supranationalism, where the College of Commissioners provides political guidance and its civil servants "defend the Commission's role as Europe's executive and help usher in a federal Europe" (Hooghe 2012: 91), institutional pragmatism where both the Commission and the Council provide political guidance with a focus on shared needs and European solutions, and finally more traditional state-centrism with member states remaining in the "driver's seat" (Hooghe 2012: 91).

5.1.3 Conclusion on policymaking in the European Union

This section provided a brief overview of the policymaking process in the EU as the geographic focus for the empirical analysis of learning in climate policy integration. It zoomed in on the key role of the European Commission, which can be understood as a collective policy entrepreneur in the European policymaking process based on its special role as the only institution with the power to propose legislation. The European Commission also understands its mission as driving forward European Integration. To a certain extent, these characteristics are unique to the European Commission. However, the notion of policy entrepreneurs in public administration, both as institution and as individual, is not new or limited to the European Commission. Originally developed in a predominantly US-American or international context (Howard 2001; Kingdon 1984), the notion of policy entrepreneurs finds an increasing uptake in the literature on the EU with some contributions focussing on the European Commission who as an institution acts as policy entrepreneur (Krause 2003; Mintrom 2013) and on individuals taking on the roles of individual policy entrepreneurs from within the European Commission (Bauer 2008; Braun 2009; Skjærseth and Wettestad 2010). The next section reviews the policy aspect of the case studies. Climate policy integration is a fairly young policy area that is enjoying increasing attention given its important role in addressing climate change while 'single purpose' climate policies remain of limited scope.

5.2 Climate Policy Integration in the European Union[5]

To justify its image and leadership ambitions on the international level (Schreurs and Tiberghien 2007; Wurzel and Connelly 2011), the EU designed a number of specific climate policies such as the European Emission Trading Scheme to implement its Kyoto commitments (Skaerseth and Wettestad 2009). Yet many sectors remain relatively unaffected from specific climate policies such as agriculture, regional and economic development, trade and parts of the transport sector (Kettner, Kletzan-Slamanig, and Köppl 2012). Examples for the integration of climate objectives into other policy sectors include energy efficiency, the use of renewable energies and the conditionality of regional development funds (Persson 2009) upon priority for low carbon technology and infrastructure, which does not exclude nuclear power or hydropower. It is crucial to move beyond understanding the related concepts of sustainable development, environmental policy integration and climate policy integration as 'fuzzy' principles (Dupont and Primova 2011; Lafferty and Hovden 2003: 5) or political constructs (Nilsson and Persson 2003) that are interpreted differently by actors. Instead, clear-cut conceptualisations are required to enable their implementation across governance levels (Watson, Bulkeley, and Hudson 2008).

This section makes a distinct contribution to the environmental policy and governance literature. It answers the question of what exactly climate policy integration is by consolidating the existing research literature and discussing what does and does not count as climate policy integration. It identifies climate policy integration as a separate concept that has a limited overlap with environmental policy integration. In terms of policy design, climate policy integration is a parallel stream besides single-purpose climate policies. The focus is on climate mitigation, but the framework is also applicable to policies targeted at adapting to the unavoidable consequences of climate change as discussed by Urwin and Jordan (2008). Criteria to evaluate the success of climate policy integration include the extent of synergies in the sectoral policies' objectives with climate mitigation/adaptation in relation to innovation, technology and infrastructure, the extent of state intervention required and political factors including policy stability, economic feasibility and societal consensus.

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[5] This section overlaps with a paper that was published as part of this PhD research (see Rietig 2013).

5.2.1 What is climate policy integration?

The concept of 'Policy Integration' goes beyond 'Environmental Policy Integration' and can be traced back over three decades, although Environmental Policy Integration can be understood as its 'mother concept' (Adelle and Russel 2013; Jordan and Lenschow 2010). Underdal (1980) is widely acknowledged as having provided the first academic analysis of 'policy integration' (Dupont and Primova 2011; Jordan and Lenschow 2010). However, developing a common conceptualisation and an analytical framework for environmental policy integration has proven challenging. Government-issued reports (e.g. Mickwitz et al. 2009) are not based on a common conceptualisation. One reason might be the requirement of political consensus and a desire to not clearly define the concept similar to the relatively flexible use of 'sustainable development' in policymaking to avoid complications based on different party-political and ideological interpretations (Jordan 2008).

Normative and legal aspects make it problematic to model climate policy integration after the concept of environmental policy integration by assigning it the status of a 'principled priority' as suggested by Dupont and Primova (2011) based on the principled priority of environmental policy integration (Lafferty and Hovden 2003). While it is desirable as an ideal-type policy, the realities of policymaking should be measured as a benchmark of what constitutes successful climate policy integration. Other than environmental policy integration (Collier 1997) it has no strong quasi-constitutional basis in international/ European treaties and therefore a far weaker standing both in international law and as a policy principle. To date, it remains a mere theoretical idea. Given the lack of a legal basis in national or European law, there are no provisions for implementation. It remains unclear who should oversee, evaluate and carry out the integration of climate policies, let alone have appropriate legal, policy and administrative instruments available for enforcement.

Climate change is frequently seen as an environmental problem (Dupont and Primova 2011; Nilsson and Nilsson 2005; Nilsson 2006). However, the core distinction between environmental and climate policy integration is that measures to address climate change can be contradictory to environmental objectives. Incentives for installing hydropower stations as opposed to fossil fuels-based power plants are a posi-

tive contribution to climate change mitigation. However, changing water levels have negative consequences for biodiversity and can destroy large areas of sensitive ecosystems. Biofuels and biomass constitute a major component of the EU's and US' renewable energy strategies to reduce carbon emissions. However, there is not only an increasing level of uncertainty regarding their positive contribution to climate mitigation targets given the high carbon intensity, but also increasing evidence of their negative environmental consequences including indirect land use changes when forests and peatlands are converted for intensive agricultural use (Searchinger et al. 2008; Sharman and Holmes 2010). Hydropower and bioenergy are widely regarded as renewable energies, forming a core measure to address climate change. Disastrous environmental consequences of nuclear accidents and the disposal of nuclear waste are another example. Yet nuclear power is regarded by most countries as acceptable medium-term choice to reduce emissions next to improving energy efficiency and increasing the share of solar or wind power (Kulovesi, Morgera, and Muñoz 2011).

5.2.2 Conceptualisation of climate policy integration

As discussed above, climate policy integration cannot be simply regarded as a subcategory of environmental policy integration, but should be rather seen as a distinct regulatory approach, which ideally has major overlaps with environmental policy integration. In consequence of the discussion of 5.2.1, this thesis conceptualises *'climate policy integration' as the integration of climate policies designed to combat climate change into local, national and international sectoral policies. Climate policy integration has a special relevance for policy fields where the use of regulatory instruments can increase synergies between climate mitigation/ adaptation and the sectoral policies' objective.*

Climate objectives cannot be integrated into all other policy sectors with the same success (Rietig 2013). The core aspect is the level of synergies between the sector's policy objectives and climate objectives. Synergies can exist in terms of technology, innovation and infrastructure. The synergies depend on the potential for mitigation/adaptation and how easily the objectives of the policy sector can be harmonised with the climate objectives. Harmonisation can happen via regulatory instruments or

financial incentives. This section provides a conceptual framework for aligning the process and outcome of climate policy integration. It draws on research findings in the environmental policy integration and governance literature while taking into account the particularities of climate policy integration (Lenschow 2002; Jordan et al. 2010; Jordan and Lenschow 2010).

Successful climate policy integration requires favourable conditions from all three forms of governance, i.e. hierarchy, market and network governance across multiple governance levels (Watson, Bulkeley, and Hudson 2008). The first condition for successful climate policy integration is continued political support beyond a change in government ensured by consensus within the governmental hierarchy or stable power equilibriums (Hamdouch and Depret 2010; Söderberg 2011; Weber and Driessen 2010). If there are frequent U-turns either in support of or against the integration of climate policy considerations, the successful implementation may prove challenging. An empirical example is the third U-turn in German nuclear policy, the most recent one following the Fukushima disaster in 2011. The second condition is societal consensus among all actors within the governance network and wider society in favour of integrating climate objectives into other policy sectors. The third condition is the economic feasibility of climate policy integration that includes low policy volatility and thereby low investment uncertainty. Only when market actors understand upfront investment as advantageous for their innovation capacity and have a reliable, stable legal framework incentivising the investment in clean technologies and supporting infrastructure (Hamdouch and Depret 2010), they are likely to cooperate. Furthermore, where financial instruments are used to incentivise the integration of climate policies such as development funds, donors need to possess the capacity to enforce conditionalities of payment upon compliance with climate policy integration priorities and to verify the use of funds via monitoring.

It may prove challenging for governments to make appropriate legislative proposals that integrate climate objectives due to internal coordination challenges. The attempt to integrate climate objectives can result in conflicts between government departments and other involved actors regarding policy priorities and competencies. Policy-makers need to take this challenge into consideration especially in cases where the affected policy sector has few automatic synergies with climate policy integration (e.g. cases examined by Söderberg 2011; Weber and Driessen 2010; Watson,

Bulkeley, and Hudson 2008). This can be addressed by introducing incentives for close cooperation among government departments across hierarchical levels and by setting up climate policy units within all government departments relevant for climate policy integration.

The implementation of climate policy integration requires a considerable time span. Existing legislation to integrate climate objectives is vulnerable to on-going political dynamics, either via elections or external shocks. Those can reverse the decisions made before the shock situation or by a previous government (Jones and Baumgartner 2012; Söderberg 2011). This opens up the necessity to design policies that 'stick' (Levin et al. 2012), i.e. create a path-dependency that is not easily reversible by external political events. This could happen via the creation of industries with business opportunities around the new policy area that subsequently develop vested interests and would thus protest against policy change reversing the policy. Other options could be political decisions for an overall policy objective, while allowing governments to implement appropriate interim steps towards the overall target via executive orders triggered by automatic interim monitoring and evaluation processes. Climate policy integration also requires a strong basis to remain resilient towards reoccurring economic and financial crises around the globe, which have frequently negative repercussions on other countries. Companies and local authorities can hardly make investment decisions in infrastructure, power generation or production methods under the uncertainty that their additional short-term costs from integrating climate concerns may not provide medium and long-term benefits given the risk of the more stringent policy being discarded after a few years (see also Brunner, Flachsland, and Marschinski 2012).

In consequence, government institutions (the European Commission in the European case) retain a steering role in climate policy integration. It needs to provide incentives for climate policy integration through regulatory and distributive interventions (Brunner, Flachsland, and Marschinski 2012). The level of intervention required depends on how well each sector's objectives match with the potential for climate mitigation/ adaptation (Swart and Raes 2007). These synergies in objectives also determine the economic feasibility of climate policy integration in the respective sectors and the level of societal support for such policies.

This chapter paved the way to analyse learning in the EU case studies on climate policy integration. Based on the conceptual literature review and the meta-theoretical framework for learning presented in the second and third chapter, this chapter provided the context of policymaking in the EU, a review of the literature on climate policy integration as well as a conceptualisation of this comparably novel but relevant area for climate governance.

Chapter 6

Integrating climate objectives into European energy policy: Learning in the European Renewable Energy Directive

The Renewable Energy Directive [RED] (EU 2009a) is the EU's major flagship legislation on renewable energy that serves the purpose of increasing the share of renewable energies in the EU to 20 per cent by 2020. It is one of the few existing examples of climate policy integration at a large scale as it integrates climate objectives into the 'core' objective of providing energy (Rietig 2013). The Renewable Energy Directive is not climate legislation per se, although it emerged as part of the wider EU climate package 2008/09 that also includes a reform of the European Emission Trading Scheme (Wettestad and Skaerseth 2010), the Fuel Quality Directive (EU 2009b) and the Energy Efficiency Directive and it is linked to the EU's climate targets of reducing emissions from 1990 levels by 20 per cent in 2020 as well as increasing energy efficiency by 20 per cent (EC 2008a). The Renewable Energy Directive can be regarded as an overarching policy that combines the three aspects of electricity, biofuels and heating/ cooling. The Renewable Electricity Directive (EU 2001) and the Biofuels Directive (EU 2003a) form the basis for the Renewable Energy Directive, which as a third component also addresses heating and cooling. Its policy development was also influenced by the Fuel Quality Directives from 1998 and 2009 (EU 1998; EU 2009b). The interdependency of biofuels as part of transport policy with the Fuel Quality Directive resulted in different learning processes than the overall development of the Renewable Energy Directive.

Its long and gradual development makes the Renewable Energy Directive an ideal example of climate policy integration since renewable energy also serves the two objectives of energy security and economic development. This chapter identifies dif-

ferent aspects of learning in the development of the Renewable Energy Directive and answers the central research questions of when, why and under what conditions learning occurred and to what extent there were alternative explanations for the policy outcome. It focuses on the Renewable Energy Directive's components of electricity, biofuels and to a lesser extent heating/ cooling.[6] The first section provides a brief overview of the development of the Renewable Energy Directive within wider socio-political shifts as potential driver for learning. The second section examines learning in the Renewable Energy Directive with a focus on its electricity component as example of learning in a fairly uncontroversial policy environment. The third section zooms in on the biofuels controversy that emerged with new scientific evidence that was introduced during the policymaking process and thus provides a good example of learning in controversial policy settings. The final section links the findings and concludes that policy change was rather the result of pre-existing beliefs and alternative explanations than learning during the policymaking process.

6.1 Drivers influencing the development of the RED in the socio-political landscape and review of the literature

This section examines the key drivers that influenced the development of the Renewable Energy Directive. It serves two purposes. First, it recognises the considerable number of publications on renewable energy policy in the European Union and on the Renewable Energy Directive in particular. It identifies gaps in this literature, which so far has predominantly focused on explaining the debates around the Renewable Electricity Directive (e.g. Eising 2002; Nilsson and Ericsson 2009), the Biofuels Directive in a EU and national context (e.g. Dunlop 2010) and the biofuels component of the Renewable Energy Directive (e.g. Sharman and Holmes). Relevant conclusions of

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[6] In the heating and cooling aspects of learning are difficult to be identified due to its recent development and lesser focus during the policymaking process (see Nedergaard 2008; Sabatier 1988). They are thus included in the wider development of the Directive, but none of the interviewees identified this aspect as an area where particular discussion and reflection as prerequisite to learning occurred.

these contributions in relation to the empirical findings of this research are discussed throughout the chapter and taken up in the discussion chapter 8. Many elements presented in this chapter, for example on coalitions, policy brokers, differing interests of actors and overall support for renewable energies have also been identified by the previous literature. This suggests that the findings from the interviews are accurate. A key gap remaining in the empirical studies on European renewable energy policy in general and the Renewable Energy Directive in particular is however that we know little about the role learning played in the policy making process.

The academic literature has so far focused on advocacy coalitions and wider collective policymaking processes in the development of the Renewable Electricity Directive (see Held, Ragwitz, and Haas 2006; Knudsen 2010; Nilsson and Ericsson 2009; Nylander 2001; Rowlands 2005; Verhaegen et al. 2007) and more widely on national implementation of renewable electricity policy with a large number of contributions in the journal *Energy Policy*. These frequently focused on the political economy of different policy instruments such as feed-in tariffs (e.g. Mitchell, Bauknecht, and Connor 2006). Another strand of literature focused on the biofuels aspect of the Renewable Energy Directive (EU 2009a) and its predecessor (EU 2003a) on the European level (e.g. Sharman and Holmes 2010) and on its national implementation (Dunlop 2010; Jacobsson 2008; Palmer 2010). Toke (2008) and Johnston et al. (2008) provided an early analysis of the negotiation process of the RED with a focus on bargaining among the member states and the European Commission, while Hildingsson et al. (2012) recently published an analysis of the governance dilemmas related to policymaking in renewable energy on the European level. Consequently, a gap remains as the key role of the European Commission and the aspect of learning were less at the centre of attention. Especially the European Commission played an important role in initiating the policy proposal and gathering support for it. A number of policy entrepreneurs pushed its development towards an unexpectedly quickly adoption within the wider climate and energy legislative package. Thus, the following sections analyse the role of the European Commission and windows of opportunity as key drivers for developing the RED and influencing the importance of learning therein.

6.1.1 The European Commission as key driver

Motivated by the oil shocks of the 1970s, the EU increased research and development into 'alternative energies' to improve energy security. This was reframed in the 1990s as triple objective of energy security, economic development (depending on the focus, also rural development or competitiveness) and climate change. In the mid-2000s, it became part of the EU climate package and was thus reframed as a contribution to climate mitigation (for details, see Hildingsson, Stripple, and Jordan 2010):

> With policy in mind (…) we talked about the pillars of energy policy and the renewables contributed toward them (…) so it contributed to climate policy, it generated jobs, and (…) contributed to the energy supply discussion so in that sense we all thought the arguments supporting renewables were broader than pure climate change.
>
> (EC 8)

Thus, renewable energies and their biofuels component were not primarily developed to solve climate mitigation and thus address environmental objectives:

> They added [environment and climate change] (…) on top. They said it's good for agriculture in addition it's good for the environment so it's one more way of selling it basically but it was never something that was developed primarily for environmental purposes.
>
> (EC 12)

This triangle proved to be a 'magic formula' as it played to different member states' domestic interests promising co-benefits:

> Member states probably understood that using increased shares of renewables, there could be something in for them in terms of industrial policy, in terms of energy policy, less energy dependence, because renewables are exceptionally domestic, I think everybody was sort of, renewables have always been quite popular in most countries.
>
> (EC 2)

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Particularly biofuels, which were also regarded as energy from renewable sources, are not a new development. Their use has been motivated as a consequence of the oil crises of the 1970s. Member states explored their use and invested in their development as response to worries about energy security in transport and in particular in the agriculture sector:

> In 1973 there was the danger that there would be no fuel available. And then countries reacted. (…) In the ministry for agriculture we began discussions in 1974 how we could address this problem so that the harvest and supply of the agricultural sector with fuel could be ensured. (…) Someone remembered that vegetable-based oil can be used in motors. There was research dating back to the war.
>
> (NMS 1)

The European Commission can be understood as a key driver in promoting the use of renewable energies in Europe. After the oil shocks of the 1970s, a unit on 'Alternative Energies' (later renamed 'Renewable Energies and Energy Efficiency') was established to promote the uptake of renewable energies. It prepared green and white papers setting out a renewable energy plan (EC 1996; 1997).

> In the year 2000, new leaders arrived and said 'its been 20 years that we have been spending money and time to promote alternative energy and it's not entering into the market, so we need to force the penetration of renewables into the market, that is why we want to develop a directive obliging electricity producers to produce renewable energy.'
>
> (EC 1)

This push for a directive promoting the uptake of renewable energies, especially renewable electricity generated from solar, wind and hydropower, coincided with the arrival of a new Commissioner for Energy and Transport, Loyola de Palacio. She was very supportive of pushing the market penetration of renewable energies and was described as a "quite tough, strong personality, [who] fought for that" (EC 1), while there was general consensus among decision-makers on the European level that an increase in renewable energies would be a desirable objective. This prompted the development of the 2001 Renewable Electricity Directive (EU 2001), which already sets the frame for climate policy integration, links to the international climate mitigation efforts as well as to the objective of sustainable development from an environmental, social and economic perspective:

The Community recognises the need to promote renewable energy sources as a priority measure given that their exploitation contributes to environmental protection and sustainable development. In addition this can also create local employment, have a positive impact on social cohesion, contribute to security of supply and make it possible to meet Kyoto targets more quickly.

(EU 2001: Recital 1)

The Renewable Electricity Directive required member states to set national indicative targets (EU 2001: Article 3) resulting in political conflicts and compromises regarding countries' exact targets (Rowlands 2005; Verhaegen et al. 2007). What facilitated the adoption of the directive was the overall consensus among stakeholders and decision-makers that alternatives to fossil fuels should play a larger role in the European energy mix. In consequence, there was a consensus regarding actor's beliefs on normative policy objectives (policy design beliefs), but also distributive conflicts regarding the exact instruments and targets based on national interests. These can be regarded as beliefs on policy details (see chapter 3).

The key motivation for European decision-makers' increased support for renewable energy was the necessity to deliver on the international climate change commitment and consequently reduce emissions. Two landmark events on the international level resulted in increased efforts by the EU and the European Commission in particular to promote the uptake of renewable energies. The first event was the United Nations Conference on Sustainable Development (UNCSD)'s Rio Earth Summit in 1992, which established the United Nations Framework Convention on Climate Change (UNFCCC) and pushed the necessity to reduce greenhouse gas emissions on national agendas. The EU played a leadership role in international climate negotiations (Schreurs and Tiberghien 2007) and wanted to be regarded as a "role model" (Fouquet 2012: 1). This brought the need to save face by implementing the ambitious commitments the EU had pushed for on the international level domestically. The second landmark event was the UNFCCC conference in Copenhagen in 2009, where countries tried to agree on a post-Kyoto climate treaty, which provided time pressure and turned out to be an important driver for the quick adoption of the Climate and Energy package (Rietig forthcoming 2014 b):

> In terms of the EU taking over a leading global role, this was a wonderful opportunity so it was clear to President Barroso and others that we needed to have an agreed European position to be able to be a strong entity at Copenhagen. That meant making rapid progress in developing the European consensus [on the climate package] first internally before turning up in Copenhagen.

(EC 8)

The Framework Convention also contained an article on civil participation in implementation, thus pointing towards the importance of cities and the local level to reduce emissions. As part of the implementation of the Framework Convention's articles on civil participation, the European Commission engaged with mayors across Europe and set up several networks to promote the uptake of renewable energies and energy efficiency measures on the local level from 1993 onwards (Hildingsson, Stripple, and Jordan 2012). These networks included the Covenant of Mayors, the Greater London Energy Efficiency Network and the global network ICLEI. Furthermore, the European Commission set up programmes to promote the uptake of renewable energy and raise awareness among citizens, companies and member states (ALTENER) as well as energy efficiency (ENERGY CITY and FEDEREN) with seed-funds:

> It was very enthusiastic, a lot of people were really enjoying it, it was really dynamic. (…) Everyone wanted to deal with renewables, and when I arrived there [in the cities] and said 'you know, you should deal with renewables and there is a network that can help you', they were interested because it's a positive message. So local authorities have been very keen to enter into this concept. And we started with this concept of financing local authorities to create local agencies, but the concept was just to prime the thumb with some seed money. And we ended up with the Covenant of Mayors.

(EC 1)

The European Council meeting in March 2006 set the overall rationale for developing a renewable energy strategy that would contribute to the overall objectives of addressing security of supply, climate change, the slow progress in the use of renewables and the importance of improving transparency and integration of the energy market (European Council 2006a: 13-15).

Heating as third component of renewable energies remained widely unaddressed. The European Commission was raising the profile of heating in renewable energies by introducing the topic into discussions at the European Parliament (EC 1; EC 4), which subsequently passed a resolution requesting from the European Com-

mission to submit to the Parliament a legislative proposal on renewable energies for heating and cooling by 31.7.2006 (European Parliament 2006). The European Parliament's resolution contained a detailed annex on the expected content with concrete measures to be proposed (European Parliament 2006: I). Shortly thereafter the European Commission received a request to prepare a proposal that integrated all three aspects of renewables, what resulted in the Renewable Energy Road Map (EC 2007a). It already contains the landmark targets on Renewable Energy that were adopted at the European Council meeting in March 2007 (European Council 2007; EC 2).

The European Commission proposed in the Renewable Energy Road Map setting a legally binding target to achieve a share of 20 per cent of the overall energy mix from renewable energy sources including a mandatory minimum target for biofuels of 10 per cent share in 2010, what would require a "substantial strengthening of the EU regulatory framework" (EC 2007a: 18), i.e. a new directive. The Renewable Energy Roadmap of January 2007 therefore had a significant impact on the decisions reached in the European Council and the subsequent proposal of the Renewable Energy Directive put forward by the European Commission:

> It was sort of all happening at the same time. (…) In the informal Council (...) in the end of 2006 (…) was when [DG Energy] (…) proposed the idea of renewables targets and there were very few member states who were interested (…) so there was not much enthusiasm but then in the beginning of 2007 we published the Renewable Energy Road Map impact assessment and a suggestion that 20 per cent was an appropriate objective for 2020 and that we should have binding targets and that these would be useful and all of this worked very well with a 20 per cent climate change objective and so we published that in January and then a combination of very intensive discussions by everybody evolved, (…) we persuaded enough people that we were utterly right so that by March of 2007 the European Council actually endorsed the approach and called for the proposal to have a legally binding 20 per cent renewables target.

(EC 8)

Interview data across different actor groups suggests that the European Commission was a key driver behind the renewable energy targets. Although there is a considerable literature on the development of the RED and its predecessor the Renewable Electricity Directive (EU 2001), the academic literature has so far said surprisingly little about the role of the European Commission as key driver in creating a window of opportunity for renewable energy policymaking although it has been regarded

as key actor in other sectors such as the European Emission Trading Scheme (Skjærseth and Wettestad 2010; Wettestad 2005) or social policy (Wendon 1998). The European Commission not only set up and promoted the networks supporting the up-take of renewable energies on the local level, but it also fulfilled its role in paving the way for a directive by raising the profile of renewable energies in the European Parliament and in the European Council, which subsequently followed the Commission's recommendations both in the aspect of heating/ cooling and in the overall 20 per cent target for renewable energy and 10 per cent for renewable energy sources in transport.

6.1.2 Windows of opportunity

The Renewable Electricity Directive was the result of a window of opportunity opened up by the European Commission's outreach activities on the local level, changes in the leadership and the pressure to implement international commitments:

> So Kyoto, plus the Greens, plus the new Commissioner, plus the willingness of people saying okay, we know we need to do more for renewable energies and Sustainable Development in general… *the time was right to make this.*

(EC 1)

The Renewable Energy Directive in turn was the result of another window of opportunity in 2006/ 2007 that raised the profile of climate change as an important problem high on the political agenda. This was driven not only by the European Commission's internal efforts to address heating as aspect of renewable energies, but especially by external events, in particular the publication of the 2007 fourth assessment report by the IPCC with alarming scientific evidence and the resulting media debate (IPCC 2007). Especially important was Al Gore's documentary movie 'An Inconvenient Truth' (Guggenheim 2006), which presented the evidence on accelerating climate change in an easily to comprehend and emotional way. It reached millions of people and was seen as having considerably raised the awareness of climate change as a problem in the public domain (EC 2; EP 1; EP 2; NMS 7):

> At the time there was compared to now a different sort of atmosphere on climate change. The Al Gore Film was out, and it was pre-Copenhagen, there was still quite a lot of enthusiasm trying to do something about climate change.

<div align="right">(EC 2)</div>

A survey conducted by the University of Oxford/ Nielsen (Butts and Boykoff 2007) found that 66 per cent of those who saw the documentary by Al Gore reported that it had 'changed their mind' about global warming, i.e. climate change, and 98 per cent reported they had an increased awareness of the problem. The change in beliefs is also indicated by the claim of 74 per cent of respondents who reported to have changed their behaviour as a result of 'An Inconvenient Truth' (Butts and Boykoff 2007). Al Gore can be identified as a key policy entrepreneur as defined by Roberts and King (1991) with a large influence on bringing about this change in deeper beliefs among the public. Many came to understand that it is normatively important to act on climate change. His presentation of scientific evidence is interrupted by personal stories, including how a science class changed his underlying beliefs and values as he reflected on the knowledge, i.e. the scientific evidence presented to him and motivated him to not only push hard for emissions trading and the Kyoto Protocol in the international climate negotiations of 1998, but also to act as a policy entrepreneur and confront the public with the climate crisis (Guggenheim 2006).

Between 2004 and 2007, there was a combination of mounting scientific evidence, increasing public awareness and concern about climate change, which was fuelled by Al Gore's movie and environmental NGOs who strongly lobbied for action on climate change (ENGO 1; ENGO 2; ENGO 8; ENGO 9). This was intensified by the political need to deliver on the Kyoto Protocol targets by designing a climate policy capable of meeting the objectives, which in turn resulted in proposals from the European Commission as well as national governments and legislation such as the European Emission Trading Scheme (Ellerman and Buchner 2007; Wettestad 2005).

These factors combined resulted in a window of opportunity to place decisions on climate mitigation on the agenda of Europe's Heads of States and to develop a European climate strategy with targets beyond 2012 towards as a short-term objective (i.e. 2020) and 2050 as a long-term perspective. It resulted in the European Council conclusions in 2005 to address climate change and to develop a coherent climate strategy with emission reduction targets (European Council 2005). Certainly, this climate

strategy was also made possible by the fact that it is easier for Heads of States as politicians to agree on a socially desirable objective that remains abstract and strategic with deadlines requiring deliverables when the decision-makers will most likely be out of office by 2020 than on concrete implementation measures (Betsill 2008).

Political leaders especially from Germany, France and the UK pushed for a European climate strategy, which resulted in the 2007 European Council conclusions on a '20-20-20 target' (EC 2009; European Council 2007; 2008). Germany's Chancellor Angela Merkel, who held the presidency of the European Council meeting, strongly pushed for an European climate strategy and convinced together with the President of the European Commission Manuel Barroso the French president Sarkozy and the British Prime Minister Tony Blair to support the proposal (EC 3; NMS 8). This finding on political leadership of the Council presidency confirms the expectation in the EU literature that the country holding the presidency of the Council has a decisive role in steering the debate towards the policy outcome (see Arregui and Thomson 2009: 658; Tallberg 2004; Thomson 2008; Warntjen 2007; 2008) much like in intergovernmental meetings (Blavoukos and Bourantonis 2010). Tony Blair was advised by his government not to support the decision given that the United Kingdom at that time had less than two per cent of renewable energy and would most likely not be able to deliver on its corresponding renewable energy target by 2020 (NMS 8). Given that this was his last European Council meeting before the end of his term and as he was alone with the other Heads of States while making the decision, he agreed to the 20 per cent overall European target on increasing the share of renewable energy in the EU (NMS 8). This meant another window of opportunity in the form of a lack of opposition that would be strong enough to mobilise enough opposition to block the policy proposal. There was also strong support from the President of the Commission:

> Well it became clear I think to President Barroso that this was one of the key policy areas where there was a clear European dimension so it was an area where there was a fair consensus that they needed European, not national action and it was a chance for the EU to take the lead in terms of broader European cohesion and cooperation.

(EC 8)

The Renewable Energy Directive was proposed in 2008 and passed unusually quickly (EC 2; EC 3). This was not the result of an overall consensus and persuasion of all actors as deliberation theory would suggest (Risse and Kleine 2010) given the intensive disagreements between coalitions especially in the area of biofuels (EC 4; EC 9; EC 12), but due to the fact that it was part of the large climate package, which was fast-tracked by all actors involved before the window of opportunity facilitated by economic prosperity and enlargement closed with the emerging financial and economic crisis:

> We had an incredible political momentum with the climate and energy package. So the Renewable Energy Directive was riding on that wave and was part of a bigger package, which enjoyed the support from the European Council, from Barroso personally and so it was part of a bigger vehicle that was very hard to stop. It was fortunately very heavily prioritised by the French presidency and although the crisis had actually kicked in, they pushed it through as one of their prizes of the French presidency, so it was agreed actually some months after the big crisis. But we were lucky that they really pushed so hard in getting it through. It's often easier when its part of a big package, to then get things through quickly.

(EC 3)

Nevertheless, the question of how the target should be achieved and what commitments it would require from the member states was very controversial. The political debate focused on whether the targets should be indicative or mandatory and on the share of renewable energy member states would be required to achieve (NMS 8):

> I realised very quickly that we couldn't sell it. So we had to make a target that had a methodology that was simplistic and the same for everybody.

(EC 6)

The RED was also adopted unusually quickly due to a successful pre-negotiation process managed by the European Commission before the publication of the official proposal with a formula that would be acceptable by the member states (EC 6).

In conclusion, there are several factors that explain why the 2009 RED (EU 2009a) was adopted unusually quickly and how it became a central policy for integrating climate change objectives into energy policy. All of these are linked to wider shifts on the socio-political landscape that made the development of renewable ener-

gies desirable and stimulated learning during policy development on the organisational level. First, it was the result of a four-decade long development process that had started with the first oil shocks and worries about energy security, there were two previous directives and it was part of a larger climate legislative package. Secondly, renewable energies were in principle regarded by all actors as a desirable technology, leading to a strong overall societal consensus in their favour. Thirdly, although it requires specific action from member states and is therefore less likely to be accepted than generic political declarations (Betsill 2008), the RED was adopted during a window of opportunity with overall societal support for an ambitious climate change strategy. As renewable energy was considered by the European Commission as inherently contributing to the mitigation of climate change (EC 2007a; 2007b), it became the core vehicle to achieve the climate targets and therefore served as integral component of the overall climate 20-20-20 legislation package (European Council 2008). Overall, policy entrepreneurs at the European Commission, in civil society and the emerging window of opportunity brought about shifts in beliefs within the wider socio-political landscape. These shifts resulted in reflection on this input on the individual and organisational level. The following sections thus focus on learning among decision-makers and how this was transferred to the organisational level.

6.2 Learning in negotiating the overall RED

This section examines what aspects of learning occurred on the individual and organisational levels as well as the extent to which learning influenced the policy outcome. It first analyses the individual level of decision-makers predominantly at the European Commission, in the European Parliament and in the European member states. The second part sheds light on the extent of learning on the organisational level and links the interdependencies between the two levels to the impact of learning on the policy design of the RED. It applies the theoretical framework presented in chapter 3 as well as the methods for data collection and analysis discussed in chapter 4.

6.2.1 Factual and experiential learning on the individual level

To identify learning on the individual level, the accounts of decision-makers would need to reflect a change in knowledge in terms of a better understanding of policy instruments and how they can be applied (factual learning) or increased experience by being involved in the drafting and/or negotiation process and gaining experience in negotiation strategy (individual experiential learning). Reflection on this 'normal' single-loop or double-loop type learning (Argyris 1976) can potentially result in constructivist learning via changed underlying beliefs (see chapter 3; Nye 1987). The key determinant for learning on the individual level is the previous experience and expertise the individual had at the outset of engaging with the new legislative proposal. Learning can be measured as a change in the status quo, the difference between the point in time when the individual began to engage with renewable energy policy and the adoption of the Directive as the final step (this could continue if the individual was also involved in implementation or reform, but is excluded from this policymaking-focused research). Reflection requires time (Radaelli 2009) and a certain autonomy from hierarchical pressures (Janis and Mann 1977). Learning on the individual level occurred among those involved during the drafting phase of the RED in terms of increases in knowledge and experience, but less in terms of changing underlying beliefs.

For individual learning to occur, the atmosphere for learning is crucial, which is strongly influenced by the leadership style of the individuals in management positions (see chapter 2 and 3). There were only a limited number of individuals involved in the direct development, drafting and negotiation of the RED[7] given that the European Commission is the only European institution with the right to make legislative proposals (Costello and Thomson 2013; Hix 2005; Weidenfeld 2006). The responsibility for the RED was at the Directorate General for Transport and Energy (DG TREN), which has been split up into the Directorate General on Energy (DG Energy) and the Directorate General on Transport (DG MOVE).[8] DG TREN had a unit of 10 to 15 civil servants dealing with renewable energies (RE). The RE Unit consisted of

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[7] The author interviewed most key individuals. These individuals were pointed out by different actors in the European Parliament, the Council and in the community of non-governmental actors.

[8] For accuracy, this thesis uses the designations that were in use at the time the policy was being negotiated. Further to the split of DG TREN, DG Environment was also split into DG Climate Action and DG Environment in 2010.

policy officers who were each or in a small team responsible for aspects of the legislative proposal, the 'file', with input from other policy officers who were experts on sub-fields of the file. Other key individuals were the rapporteurs and shadow-rapporteurs of the Environment and the Industry, Research and Energy committees in the European Parliament (Marshall 2012) as well as the advisors to the heads of states/member state representatives in the Council working groups. The remainder of this section examines the learning of the involved key individuals.

The atmosphere in the Renewable Energy and Energy Efficiency Unit has been described by individuals who at the time of the interview had moved on to other positions outside DG TREN as constructive, friendly and supportive with a high level of autonomy, based on trust into the individual's capabilities. The colleagues were described as 'dedicated' and 'motivated', holding the belief that they were contributing to an important and normatively 'good' endeavour (EC 3; EC 7). This can frequently be observed inside the European Commission (EC 4; ENGO 1; Koch and Lindenthal 2011). Two key reasons can be identified from the empirical data as enabling this atmosphere of openness to learning and reflection in the RE Unit. The first reason is the topic area of renewable energy, which has an overall positive connotation of 'doing something good for society and the environment' as opposed to potentially harmful policies. The field of renewable energy, similar like environment and climate, attracts people with a 'green mindset', who care about the environment and share deeper beliefs that favour environmental protection and mitigating climate change (EC 2; EC 3; EC 4; EC 14; NMS 8). Interviewees agreed that people working in this area were especially motivated and dedicated as they were contributing to something 'bigger':

> It is also something related to the area. (…) I think people who work in climate issues are reinforced by the idea that they are doing something good. (…) And probably it also attracts people who have this special drive.
>
> (EC 3)

The second key determinant for reflection and therefore learning on the individual level is the leadership style of the immediate superior, in this case the Head of Unit. If the team members are not simply following orders as a major reason for a lack of learning (see Janis and Mann 1977), but have a certain level of autonomy in their day-to-day work, it can have a positive influence on their motivation and dedication.

In the case of the RE Unit, the atmosphere was described as "very good. Very dynamic, we were very busy and very dedicated (…) I think we were quite enthusiastic about the whole thing. [The Head of Unit] was good at motivating people" (EC 3) and "very supportive and at a high pace" (EC 7). A key strategy was to let the policy officers as experts on the different aspects of the RED speak on behalf of the European Commission in external meetings and explain the issues under discussion, what placed a significant responsibility on them but also had a very motivating effect (EC 2):

> I mean it meant that at one point every week we would go into a council workgroup or parliamentary committees or both to discuss texts, to look at amendments, to argue about what was right and what was wrong. Doing that on a very regular, frequent weekly basis was great learning from my perspective, but there was a whole team of us doing it, led by my head of unit (…) and he made sure it all went smoothly and it did and it was also all great fun.

> (EC 8)

The Head of Unit had recently moved to the topic area of renewable energy after working for over a decade on other energy-related issues and had thus a limited background knowledge on renewable energy and its key components of electricity, biofuels and heating/cooling: "I knew bits about renewables, but I didn't know the details, so for me it was a learning process as well" (EC 2). He learned important facts about renewables from his policy officers who had been in the unit previously and who were experts on specific areas of renewable energy. The reliance on their expertise was very high. To understand the technical details, they had many meetings and discussions in a 'mini seminar' setting (EC 2). Given that the Head of Unit's knowledge of renewables was limited at the time of appointment and he had to present and negotiate the RED over the next three years, both his level of knowledge on technical details of renewables increased as did his experience by being deeply involved in the topic and at the same time carrying the main responsibility for the feasibility of the policy proposal:

> And then, like everything else, it is learning by doing at the Commission, that's the way it is, as Head of Unit you are thrown into it, you have to present eventually what you think should be done, once the Commission has made the proposal you have to present the proposal, you have to negotiate the proposal.

> (EC 2)

The leadership style of letting the technical experts present their part in the European Council working groups and allowing the policy officers high autonomy in drafting, presenting and negotiating their aspects of the RED (such as heat pumps), opened up the space for experiential and factual learning among the policy officers. Those with limited specific knowledge on their tasked area engaged deeply with the material including reading scientific studies (EC 4), reflected upon the material to determine its usefulness for their task and adopted aspects they concluded to be useful, thereby adding to their base of knowledge (EC 5; EC 9; ENGO 1). Especially the frequently unusual experience for junior or expert policy officers to be negotiating on behalf of the European Commission in the Council working groups or in the European Parliament resulted in experiential learning in terms of negotiation strategies and tactics (i.e. political learning, see chapter 2 and 3), the positions of the member states on the issue, and improved understanding of the member states' positions and determination to defend national interests (EC 3). In conclusion, the members of the RE unit as key actors can be regarded as having learned by engaging with the issue.

6.2.2 Changes in beliefs via constructivist learning?

Constructivist learning that goes beyond 'normal learning' can be identified by changes in deeper beliefs, policy design beliefs relating to the overall policy and beliefs regarding the exact policy instruments (see chapter 3; for related concepts, see Farrell 2009; Sabatier 1988). Here the result is rather mixed as few of the key actors involved changed how they viewed renewable energies, neither by being presented with new evidence nor through the process of accumulating working experience in the practical aspects of policymaking. Two key reasons can be identified for this.

The first reason is that the RED's objectives were already aligned with personal beliefs. This has been suggested and confirmed by the majority of key interviewees involved in the drafting and negotiation process. When asked about their background and experience of working in the area of renewable energies, energy or environment they reported either very long working experience in the area that accu-

mulates to far over 10,000 hours regarded as the hallmark for true expert status (Gladwell 2009; Simonton 1999) and/ or an academic background in the specific discipline at Master, PhD or even senior researcher level.

Many emphasised their deeper beliefs by self-identifying as 'greens' or 'environmentalists' who since their teens care about the environment, partly motivated by the environmental movements of the 1970s and 1980s (EP 3; EP 4; NMS 6; NMS 8) or can be identified as such based on their strong affinity to ecological arguments (EC 10; EC 11; EC 14). None of these actors reported a change in deeper beliefs or in their normative beliefs of how the overall policy should be designed or how the exact policy instruments should look like (with the exception of biofuels, which will be addressed in the next section), i.e. in 'how they saw the issue' and their conclusions on the course of action to take. The reason is that their 'change' in beliefs and therefore constructivist learning occurred prior to their involvement with the RED. It thus did not lead them to either reflect or change their underlying beliefs as their beliefs were already aligned with what their position required of them.

In cases where the position decision-makers were asked to take as part of their job description or organisational affiliation was not in line with their personal underlying values, the individuals rather tried (mostly successfully) to change their organisations' position and align it with their personal deeper beliefs by acting as policy entrepreneurs and convincing the top decision-makers that it was in the organisation's interest to support the RED (e.g. NMS 8). One reason for the lack of change in underlying beliefs during the drafting and negotiation of the RED was that the individuals involved reflected on the changes in the socio-political landscape before their involvement with renewable energies, when their policy design beliefs that renewable energies were a good option to achieve co-benefits for climate mitigation, local development and energy security were formed. This was also true for political leaders that influenced decision-making in the European Council. One particular example is the British Prime Minister Gordon Brown, who went against the advice of his administration by supporting a renewable energy target instead of blocking it. This was the result of readjusted beliefs regarding the realisation that climate change exists and that all countries, including the UK, needed to act on it. This can be understood as a change in deeper beliefs (i.e. that climate change is a major challenge) and beliefs regarding policy design (i.e. that Britain and Europe need to address climate change via policies)

and the more detailed policy instruments (i.e. the upscale of renewable energies and legislation supporting a low carbon economy):

> He wasn't interested in this in the beginning as he became later on, he became absolutely obsessed by it, I mean before Copenhagen he became really quite incredibly focused on it. Why did [Gordon Browns] point of view change? I think he was convinced by the arguments. I think he came to understand that climate change was a massive problem and we had to act on it. He was very taken by the distribution of consequences that developed countries were causing and had caused a huge problem for developing countries, it was deeply unjust, so it fits in with his views on development. He came to believe the economic arguments that you can build a low carbon economy and that it was good for us.

(NMS 8)

The individuals that were involved in the drafting of the RED had previously aligned their personal underlying beliefs towards seeing renewable energies as something uncontroversial and normatively 'good' and as a desirable alternative to fossil fuels and nuclear energy. This view did not change during their involvement with the drafting of the RED or previous related directives (as emphasised by EC 1; EC 3; EC 4; EC 6; EC 8). The policy-makers' reflection on wider social developments demonstrates a direct link between the socio-political landscape and the individual level of learning with regards to constructivist learning.

Overall, learning did occur on the individual level. Factual learning and experiential learning happened among the policy-makers involved in drafting the RED, mostly by being involved in the process. How much they learned depended on their previous experiences and expertise on the issue. For individual learning to occur and for the learning process to be initiated, policy-makers required enough autonomy to reflect on the new information and to design their own "trial solutions" (Swann 1999: 260). This was facilitated by an appropriate leadership style as in the case of the Renewable Energies Unit within DG TREN/ DG Energy that further motivated already dedicated policy-makers to go the extra mile and aspire to design even 'better' policies. However, this autonomy can also have negative effects if scientific knowledge is contested and if this uncertainty leads to un-reflected conclusions that later on turn out to have negative impact on the environment or society (see section 6.3).

6.2.3 Organisational objective or learning?

By engaging with the topic of renewable energy for almost four decades, the European Commission accumulated wide-ranging experience and, at least partly, holds records of this experiential learning in the form of 'lessons learned'. This is similar to the concept of 'lesson drawing' discussed by Richard Rose (1991; 1993), however 'lesson learning' rather relates to learning from the own collective organisational experience than drawing lessons from the experiences and actions of others. A certain but random continuity among senior civil servants also preserved this experience, which can be reflected upon when new policy proposals are designed. For example, when drafting the proposal on the use of renewables for heating and cooling, the template of the two previous directives was used (EC 1). By establishing organisational units, directorates and directorate generals that deal with certain issues as their main objective, institutional memory is built allowing a continuous engagement with the issue beyond changes in personnel and thus the transfer of experiential learning from the individual to the organisational level (for similar observations, see Jachtenfuchs 1996: 35).

There is one deeper belief that drives policymaking at the European Commission: it "acts not on behalf of national or group interests, but for the EU and its citizens in general" (Sabathil, Joos, and Kessler 2008: 7; Vahl 1992). Its' key tasks are to take the initiative aimed at the promotion of further integration including harmonisation, guarding the European treaties by guaranteeing the compliance with legal acts and serving as executive body of the EU, including outside representation in several policy areas (Sabathil, Joos, and Kessler 2008: 5-8). It became clear during the interviews that most civil servants at the European Commission share the deeper belief of serving the citizens of Europe and acting for the good of the EU with a mind-set of independence from national or particular interests that is neither mirrored by representatives of the European Parliament, who serve their constituency, their party and frequently particular industry interests (EP 1; EP 2; EP 4; EP 5; EP 9), nor by representatives of the member states who serve national interests including the objectives of their political party and interest groups (NMS 1; NMS 2; NMS 6; NMS 8; NMS 9; NMS 10; SMS 3). This shared deeper organisational belief is a key driver for policy-making initiatives and for determining a position on the issues under consideration:

> We have a common interest to build a Union for the benefit of everyone. We cannot say that the member states have exactly the same aim because they have to defend their national interest and there is nothing bad, it's just normal. But we are the EU institution that wants to defend a common interest.

<div align="right">(EC 1)</div>

By engaging in policymaking, which can include experiential learning by long-term engagement with a topic or the addition of knowledge; the deeper belief of a shared common interest to serve Europe remains unchanged. This common interest is mainly understood as increased harmonisation, economic prosperity and overall sustainable economic development. The institutional objective is embedded in the organisational structure. The European Commission built up the institutional capacity to develop proposals in the specific issue area, such as the staff members of the renewable energy unit dedicated to facilitate the uptake of renewable energies. This results in automatically self-sustaining and reinforcing dynamics towards increased harmonisation and integration, which is also described as the "machinery of policymaking" (EC 8; EC 24) that delivers on the overall strategic objectives because it is tasked to come up with new policy proposals supporting these objectives. Even if the European Commission was met with opposition from the member states regarding specific proposals on renewable energy, the overall direction remained unchanged as the example of harmonisation of the electricity market, including renewable energies, demonstrates:

> You need to repeat the same thing, its common sense. Sugar can move around, cars can move around, why not electricity? Why can a company from the UK go and develop a business in Portugal, but not in electricity. You cannot oppose to that! You can find excuses and say 'well, we need time, it's difficult', but you cannot say no!

<div align="right">(EC 1)</div>

The discussion was less about the direction of the overall desirability of the policy objective, in the examined case the desirability of renewable energies, than about the details of implementing them in the most cost-effective and efficient way. This shifted the debate from 'yes versus no' towards discussing the 'how to implement the yes'. In conclusion, most policy-makers at the European Commission involved in drafting the

RED overall shared the common belief of serving the European citizens as intended in the European treaties (Craig 2010). While there was agreement to serve the common interest as overall deeper belief, the question of how this common interest exactly looks like (i.e. policy design and detail beliefs) was strongly debated and was the cause for disagreements between the different actors within the European Commission. This embedded organisational objective however also became an active policy objective within the negotiation process that went beyond the role of the European Commission as neutral facilitator as the following section illustrates.

6.2.4 Setting the national targets: bargaining with the member states

By following this overall objective of serving the European interest of deepened integration, harmonisation and maintained economic development, the European Commission has an interest of proposing legislation that is likely to be adopted with only minor changes (EC 2; EC 3; EC 6; EC 14). This means frequently to find the 'middle ground' between the Council and the European Parliament through extensive pre-negotiations to fine-tune the political feasibility of a proposal (EC 2; EC 3; EP 3).

In the case of the RED the objective of the European Commission was to "come forward with something that has the chance of being adopted" (EC 6). The European Commission wanted to avoid distributive bargaining conflicts. Therefore, in order to get to an agreement on the national targets for the share of renewable energies, the European Commission chose the approach of extensive consultations with the member states, especially on political issues regarding the national targets for renewable energy before formally bringing forward the proposal (EC 6). The unit in charge of drafting the legislative proposal within the Directorate General on Transport and Energy also consulted with the Cabinet of the Energy Commissioner Andres Piebalgs early in the process, as well as involved the other Directorate Generals, especially the Directorate General on Environment in the Interservice Consultations before formally discussing the proposal in the College of Commissioners and Council working groups (EC 2; EC 6; EC 10; EC 11). Finding an agreement that would be acceptable to all member states turned out to be challenging to an extent that when Andres Piebalgs

was asked about the most difficult issue during his time as Energy Commissioner, he concluded that it was setting the national targets for renewable energies (EC 6).

Different ideas regarding the design and distribution of the 20 per cent target were considered and tested for their political feasibility with the member states. Subsequently, the civil servants at the European Commission reflected on the feedback regarding what would be acceptable and what would meet fierce opposition. One proposal tested by the Directorate General was to set targets according to the 'Green-X model' for the member states based on their technological potential and natural endowment to cost-effectively install renewable energies, such as focussing on wind in North sea regions and solar energy in Mediterranean countries (EC 2; EC 3; EC 6). Upon being presented by the European Commission with what their individual targets for renewable energies should be, the member states refused to agree to the proposal:

> We told them what we thought their potential was and I remember ministers going red in their face and raising their voices saying "but that is preposterous, we can't do that, there are many reasons why it can be windy, but we can't put wind turbines in the sea or land!" So very quickly it was apparent [to us] (…) that we didn't have enough knowledge to contradict the member states that rubbished the whole thing and said, "this is crazy, your analysis is all wrong!" (…) We realised that we were getting nowhere and if we replicate this 27 times, you've got a lot of trouble. And another approach was needed. And that was okay with me, because I didn't have much faith in the power of administrators to set targets for cost effective technologies.

(EC 6)

The technology-based modelling approach was not a politically feasible proposal, which resulted in a new Commission proposal targeted at finding a simple, fair and equitable solution the member states could agree to. Starting from the existing gap of 11.5 per cent to the target, the European Commission proposed a flat rate target of an increase of 5.25 per cent with the remaining overall 5.25 per cent differentiated according to GDP per capita. This economic formula took into account the different economic capabilities for investment in renewable technologies within the required time frame. To increase flexibility and cost-effectiveness, the Commission also proposed a trading mechanism allowing countries with a lower target (but the potential to achieve a higher share of renewables cost-effectively) to do so and to transfer their overachievement to another member state struggling to achieve its target (EC 6).

The further reaching proposal on energy trading resulted in a considerable disagreement (Toke 2008: 3001). Germany most strongly objected as it would have interfered with the successful feed-in tariff, while some countries were reluctant to subsidise other countries' energy production (EC 6; Toke 2008: 3007). Consequently, the attempt to harmonise the energy market did not get far in the negotiation process. This was not the first time that member states protected their national interests regarding feed-in tariffs and objected to harmonisation efforts. The European Commission already proposed an EU-wide tradable green certificate scheme in the preparation of the 2001 Renewable Electricity Directive, which was strongly opposed by Germany and Spain, but the European Commission did not give up on putting "pressure on member states to change their support policies" (Hildingsson, Stripple, and Jordan 2010: 110) as the 2008 case illustrates (see Toke 2008).

Yet, this example of disagreement about beliefs of what policy instruments would be most appropriate also illustrates how actors at the European Commission tried to protect and further realise their beliefs linked to their organisational objective of furthering European integration via harmonisation and proposing a policy that was likely to be acceptable to the member states. In that sense, the European Commission was looking for 'win-win' opportunities and alternatives that would still allow achieving the actual beliefs of the overall policy design and the use of the specific policy instrument. It also shows that once a specific policy instrument became unobtainable, another policy instrument was pursued to still realise the overall policy objective.

In the next step the European Commission designed a proposal that was likely to provide a compromise solution and presented it to the member states to gain their support. In the case of the RED, the European Commission put together a high level delegation consisting of the President, the Commissioner, Heads of Cabinet, Heads of Units and technical experts from DG Energy and Environment who visited the member states to present the proposal, try to convince the member states of its feasibility for implementation and gather support (EC 1; EC 2; EC 5; EC 6).

> Then what we did was Piebalgs got into an airplane with [Environment Commissioner] Dimas, because he was selling the EU ETS targets and the effort sharing decisions targets, and we flew around Europe (…) and we told everyone what their target would be and people breathed in, but they accepted it.
>
> (EC 2)

Following the publication of the official proposal, the European Commission accompanied the negotiation process with the other institutions, especially in the European Council's working groups, where representatives of the national energy and environmental departments met. The European Commission also presented the proposal in the European Parliament's Committee for Industry and Energy as well as in the Environmental Committee, where several amendments were prepared before the final vote in the Parliament (EP 1; EP 3). Especially the negotiations in the Parliament opened up the space for non-governmental actors such as industry and environmental NGOs to provide their input and amend the RED proposal via Members of the Parliament, who handed in the amendments prepared by non-governmental actors (ENGO 1; ENGO 2; ENGO 3; EP 3). The intensive testing and pre-negotiation activities of the European Commission resulted in the national renewable energy targets remaining unchanged and an overall fairly quick adoption of the proposal:

> What subsequently happened was that the Commission made its proposal having already had its prior information, everyone knew what their targets would be, and in the end the negotiation process of co-decision did not touch those targets, that was remarkable. That was remarkable because everybody knew if they touched it just a little bit, it would not add up to 20 per cent. (…) The European Parliament had seen that the targets had been very carefully worked on beforehand, they didn't touch them either. So all the discussion on the RED was how the modalities would work, not the targets. It was extraordinary.

(EC 6)

Once the European Commission published a policy proposal it has theoretically fulfilled its role in the political system of the EU (Weidenfeld 2006) and the negotiation takes place between the member states and within the European Parliament. However, in practise the European Commission continued to play a central role. More than that, depending on the individuals involved who had already invested significant efforts in making a proposal that was realistic enough to get adopted and was deemed politically feasible, the Directorate General in charge of the policy proposal had its own political interests and negotiation position beyond the official facilitating role: that of getting the policy proposal adopted with as few changes as possible in line with its own deeper and policy design beliefs of what is best for Europe. This organisational objective is not always acknowledged by the EU literature (notable exceptions

are Hooghe 2012; Wonka 2008) that widely regards the European Commission as a neutral actor as set out in the treaties (Sabathil, Joos, and Kessler 2008; Weidenfeld 2006). The European Commission however followed its own objectives. It played a key role as advisor in the negotiations with the European Parliament and the Council via its advantage in expertise:

> You give them only as much as they need to know at the moment. Well, you don't want to give more than you need. You don't want to overload with information, then you just create more questions. And of course if the Commission has a specific position, you would want to defend that specific position. You want to make it go where you want, so you make it go! So you of course present the things in a way that would support your position, unless you not really care at all.

> (EC 3)

This was also confirmed by members of the European Parliament:

> The Commission is of course very political, but it is again individual-dependent on how they get to their position. (…) But very clearly in the end the Commission is a political body and they try to find a ground already beforehand, which is right between Council and Parliament, so that they know that in the negotiations the final compromise is getting very close to the original position. For that they have of course to communicate a lot beforehand to see where they can expect the institutions to end up beforehand.

> (EP 5)

The European Commission can therefore be understood as an actor in the negotiations with asymmetric powers. In the negotiations in the European Parliament and the Council working groups the Commission representatives benefitted from the high standing as experts on the issue and their formal roles as facilitators:

> Every exchange of views we have in the Committee, it is always a representative of the Commission asked to give their input, and very clearly what the Commission says is important for the debate. Everyone is listening very closely to what the Commission is saying, and if they say something like 'well those and those amendments are interesting', then of course in the negotiations you use this as an argument, 'well, even the Commission thought it's an improvement on that proposal'. So what they say is always important for the negotiations.

> (EP 5)

6.2.5 Conclusion on learning in the wider RED drafting and negotiation process

Overall, there was little learning on the organisational level that could be identified in the interviews on the RED's negotiation process beyond 'normal' incremental experiential and factual learning (see Rietig and Perkins 2013). Learning on the individual level did occur, but it was not transferred to the organisational level, which was dominated by bargaining behaviour among negotiation parties. A notable exception was Gordon Brown's change in deeper beliefs on climate change. The European Commission's negotiation behaviour could be interpreted as that of a collective policy entrepreneur actively protecting its beliefs on the 'right' overall policy design by giving in on (non-essential) policy detail beliefs regarding the exact policy instruments, as long as the key deeper and policy design beliefs of serving the greater European good by acting on climate change, furthering economic development and improving energy security were protected. This detailed account of the European Commission's strategy to pre-negotiate the individual mandatory renewable energy targets for member states so that they would add up to the overall target of 20 per cent illustrates how those acting on behalf of the European Commission followed the institutional objective, which could be understood as the equivalent to national interest among the member states. These findings portray the European Commission as a rational, independent political actor that followed its organisational objectives based on the European treaties beyond electoral political cycles and domestic politics.

One crucial challenge in determining learning among decision-makers in general and on the organisational level in particular is to differentiate learning defined as a change because underlying beliefs were altered from negotiation tactics and bargaining behaviour that did not result in learning but only served the pursuit of political objectives. On the side of the member states no relevant change could be detected that was not explained as acting in the national interest, resulting in the conclusion that taking a different position would have resulted in a loss of face in the negotiations or defeat in the final vote, such as when a member stated bargained for lower targets and attempted to water-down the national target by trying to create loopholes:

> But we did this in the normal manner of EU negotiations, in which every country is fighting for its own interests. And everybody knows that and you expect it. So (…) you don't have really be disguised about that. Everybody knows that countries fight their own interests and we did it in a very normal kind of way. (…) Rather than believing we could persuade them we would be looking for the compromise, or looking for the give and take. 'Okay, we'll agree to that, but then we want something in return.' So, you do listen, because you then find where the compromise is or the trade-offs are.

(NMS 8)

Personal relationships do matter as well as the image of the negotiator as personable, trustworthy and knowledgeable (EP 1; EP 2; NMS 8; NMS 10). As negotiations on the international level among member states are characterised by repeated meetings over years, the negotiators form working relationships with each other that facilitate signalling on possible bargaining chips and negotiation preferences. If negotiators trust each other they may be willing to engage in informal negotiations by exchanging their 'briefing scripts' and informing each other on which points they could move and what is absolutely crucial national interest that may not be touched (NMS 4; NMS 8; NMS 10). This also happened in the case of the negotiations on the RED in the Council and in the Parliament, yet none of the involved negotiators made references to changed beliefs. One key conclusion could be that because it was a negotiation setting, it did not help to convince the negotiator as even if the negotiator had changed his/her beliefs as a result of constructivist learning, s/he would most likely not have been able to move on the national position given that civil servant's negotiation mandates are limited and even ministers face political constraints back in their home countries (although this can also be used as bargaining chip across the two governance levels, see Putnam 1988). So even although constructivist learning may have occurred on the individual level, it remained unlikely that this was transferred into constructivist learning on the organisational level in the form of changed negotiation positions that resulted from modified beliefs.

The following section zooms into the 'biofuel debate' as the most controversial aspect of the RED, which was also linked to the Fuel Quality Directive (EC 2009b) and the reform proposal on Indirect Land Use Changes (EC 2012). This more detailed analysis provides insights into the relevance of scientific consensus and illustrates how disagreements between coalitions of policy-makers affect learning and policy outcomes.

6.3 Learning in the biofuels controversy

The legislative proposal of the RED contained three aspects that became the subject of major disagreement among the actors involved. While the question regarding the individual member state targets was resolved before the proposal was made (EC 2; EC 6; see 6.2), the issue regarding the trade in green electricity certificates (guarantees of origin) was subject to major disagreement between Directorate Generals in the European Commission, member states, environmental NGOs and industry lobbying groups (Rowlands 2005; Toke 2008). This was due to their negative implications for stable investment decisions (see Nilsson and Ericsson 2009 for a detailed analysis). The discussions were centred on the market frame, security of supply frame and innovation frame (Nilsson and Ericsson 2009). While these disagreements concerned distributive issues among the member states, the controversy regarding the mandatory 10 per cent target on biofuels, which was later on reframed as mandatory target for 10 per cent renewable energies in transport (EC 9; EC 11; Sharman and Holmes 2010), was more fundamental and concerned a central aspect of energy provision within the RED.

The biofuels aspect merits further attention as it indicates alternative explanations to learning as a result of defensive avoidance among actors who were reluctant to reflect on the other groups' positions (Janis and Mann 1977). Key reasons for this controversy were contested scientific knowledge at the time of policymaking, path-dependency and policy lock-ins as well as incremental steps to 'correct' policy outcomes made under scientific uncertainty after the evidence pointed towards policy failure. The policy development can however also be seen as an incremental experiential learning process on biofuels policy from first to third or fourth generation biofuels that allow for competitive advantages later on (as argued by Dunlop 2010: 356). The side effect of this approach however was a further lock-in effect into first generation biofuel technologies that cannot easily be substituted with second/ third generation biofuel technologies as these are fundamentally different and benefit diverse industries (e.g., food crops as first generation biofuels benefit predominantly farmers, while algae in sea-water farms as third generation biofuels benefit entirely different actors).

This section examines learning during the development of the biofuels component within the Renewable Energy Directive, including relevant links to other biofuel policies in the EU such as the Fuel Quality Directive (EU 2009b). This serves the purpose of more closely determining what drives and hinders learning on the organisational level and to more clearly differentiate alternative explanations to learning such as institutional culture from constructivist learning. While the overall development of the RED dates back over 40 years, the biofuels component also allows examining learning processes over the medium-term between 2002 and 2012 as appropriate time span suggested by Sabatier (1988) and confirmed by Radaelli (2009). The analysis is focused on the differing beliefs, which form the basis for constructivist learning.

This section thus makes several contributions to the literature. First, it explains why this aspect of the RED resulted in what looks like a policy failure. To date, there is only one contribution (Sharman and Holmes 2010) examining the emergence of the biofuels aspect of the RED, however it restricts its analysis to a normative environmental perspective. This analysis adds an additional layer by using elements of the advocacy coalition framework developed by Sabatier (1988; 1998; Weible et al. 2011b) to avoid analytical bias against the dominant policymaking coalition. Its second contribution is thus to widen the scope for understanding 'policy failure' from a perspective of contested beliefs, which results in different interpretations of scientific evidence and also highlights the difficulties of 'escaping' policy lock-ins and path-dependencies that were created during periods of scientific uncertainty. It thus improves our understanding of the underlying beliefs and mechanisms leading to policy outcomes that require in-built reforms remedying unintended (environmental) consequences to "avoid another 'biofuels' disaster" in the future (EC 12). Therefore, it adds to the literature on path-dependencies in policymaking, which has already examined the case of biofuels policy in the UK (Dunlop 2010; Palmer 2010) resulting from the 2003 Biofuels Directive (EU 2003a). It furthermore contributes to the rich literature on the role of science and knowledge in policymaking, which more or less explicitly makes references to learning (e.g. Dunlop 2009; Jasanoff 1990; Owens 2010; 2012; Radaelli 1995; Weible, Sabatier, and Lubell 2004). Both literatures are predominantly focused on the national level and have a lesser focus on the role of learning for the policy outcome.

The first section finds that two coalitions with differing beliefs tried to frame the issue and to influence EU biofuels policy. It also identifies aspects of the Advocacy Coalition Framework (ACF) as useful analytical lens to analyse conflict among interest groups in policy learning while at the same time controlling for different types of beliefs (Sabatier 1988; 1998; Weible and Sabatier 2009). However, this chapter only uses some aspects of the ACF as auxiliary analytical lens without applying all its aspects (for a detailed discussion, see 3.1). Therefore, this analysis is only 'inspired' by the ACF and does not fully adopt it. The second section concludes that factual and experiential learning occurred on all levels, whereby the results for constructivist learning were mixed as this can be confused with alternative explanations for learning.

6.3.1 Belief changes resulting in conflict and the key role of timing

The biofuels component emerged from actions across different Directorate Generals between 2003 and 2007 with a less-clear cut focus on climate mitigation as the other two aspects of the RED. This multiple purpose of biofuels was a key reason why different coalitions formed after its relevance for climate mitigation became contested.

Origin of biofuels policy

DG Agriculture was working on a biofuels strategy that resulted from the implementation of the Common Agricultural Policy (CAP) reform, which included not only greening measures, but also reducing subsidies in the sugar regime (ENGO 1; European Council 2006b; Sharman and Holmes 2010):

> It all started with the sugar reform. (…) [Biofuels were] a new outlet for the sugar beet industry basically but they were going to get less money from the agricultural policy so developing biofuels was a way to compensate for that basically and if you look at documents from that time, like the first communications and so on you really see that that's what they say and they don't even mention [climate objectives], or only in passing. (…) In the EU it was the agricultural policy that was the main driver [for biofuels].

> (EC 12)

This was confirmed by the environmental NGOs:

> Commissioner Fischer-Bohl, who was wrapping up the sugar reform, which was one of the reforms she actually had to do, so she had huge opposition from the farm lobby, and she found the magic way of sugar coating, the deal of saying 'we lower your guaranteed price of sugar, but don't worry, you'll make lots of money through biofuels, and there will be a bright new future, and there will be lots of subsidies coming from that direction'.
>
> (ENGO 1)

As well as other actors at the European Commission:

> There was the CAP reform. In the summer of 2005 DG Agriculture put together this Cabinet-level working group that was basically addressing biofuels as part of the response to the sugar reform that the Commission was pushing through.
>
> (EC 9)

Between 2005 and 2007 DG Environment was working on the Fuel Quality Directive. At the same time, DG Energy and Transport was drafting the biomass action plan (EC 2005) on how biomass could best be used, but "what it ended up being was very much a sort of selling job on why we needed more biofuels in transport, rather than looking at where it would be optimal to use biomass" (EC 9). Another parallel development were discussions regarding the carbon dioxide emission standards of cars (EC 2007c). Several actors including the car industry, the agricultural lobby in the member states and two Directorate Generals within the European Commission were pushing for a more reliable biofuels target that would go beyond the existing voluntary target of 5.75 per cent (EC 10; ENGO 1; EU 2003a), while "at that point it was specifically biofuels and not renewables in transport" (EC 11) and only later "it got changed at some point in the process to renewables in transport" (EC 12). The European Council requested the Commission to propose a set of directives that would deliver on the 2020 '20-20-20 Strategy' that also included a 10 per cent share of biofuels (European Council 2007: 21; EC 2008b), while the targets were more based on political objectives than on scientific data (Sharman and Holmes 2010):

> It was biofuels at the beginning and I think what happened is that was before they had assessed [different targets]. (…) It was a bit random to be honest. They said "Oh, well let's have something in the middle like 10 per cent" and I think it also suited much of the modeling exercises [DG Transport and Energy/ DG Agriculture] did to see how they could reach the renewables target.
>
> (EC 12)

A shared assumption was that

> in 2003 it was fairly clear that there were clear greenhouse gas savings from near-
> ly every process in biofuels and the consensus seemed to be that the indirect land
> use changes were insignificant, so that was 2003. I guess by the time we were
> drafting the directive that had changed completely (…). The anti-biofuels
> arguments (…) certainly occupied us thoroughly from 2007 onwards.

<div align="right">(EC 8)</div>

Emergence of new scientific evidence on the climate performance of biofuels

The economic development focused coalition developed the biofuels aspects of the
RED based on these assumptions. After the lock-in into the 10 per cent target follow-
ing the European Council's decision, new scientific evidence was introduced into the
debate between 2007 and 2010. The new evidence emphasised that not all types of
biofuels had a positive effect on climate mitigation but in parts had a worse carbon
footprint than fossil fuels (Bergsma et al. 2010; Fargione et al. 2008; Melillo et al.
2009; Searchinger et al. 2008). Furthermore, ethanol from sugar and maize as well as
biodiesel from rapeseed was found to compete with the provision of food either di-
rectly in the case of sugar and maize (Runge and Senauer 2007) or indirectly as food
needed to be produced elsewhere, what led to the conversion of carbon sinks such as
forest covered areas into agricultural land, thus resulting in carbon emissions from in-
direct land use changes (Lange 2011). The increased demand for agricultural areas
and direct competition of biofuels with food production was linked to rising food pric-
es and the food crisis of 2007/08 in several developing countries, what resulted in a
'food versus fuel' debate fuelled by the NGOs and in the media (Keyzer, Merbis, and
Voortman 2008; Kullander 2010; Runge and Senauer 2007).

The fairly stable consensus that renewable energies were 'good' was challenged
by the scientific evidence that not all renewable energies had the same carbon neutral
performance, especially when their indirect effects for land use changes was taken in-
to account. The new scientific evidence that was presented by scientists both in the
United States (Searchinger et al. 2008) and in Europe (Dehue, Meyer, and Hettinga
2008) regarding the negative climate mitigation performance of certain types of
biofuels was picked up by the nongovernmental organisations and the media and en-
tered the public sphere via the 'food versus fuel' debate between 2008 and 2009. Yet

even the environmentalists had until then been either indifferent or in support of biofuels:

> The negative reaction first came from the social NGOs, and it took several years for environmental NGOs to take notice and to talk about the problem while saving face. Because it is also not possible that you are pushing for an ambitious target and two years later you are saying that the target is causing a problem. So they needed a few years and a few changes in personnel and terminology to explain themselves, but others who were not implicated in the early push in favour of biofuels, they were much quicker to react.
>
> (EC 10)

Until the new scientific evidence emerged, there was a consensus in the policy design and policy detail beliefs among most of the key actors involved that climate change needed to be addressed and that renewable energies, including biofuels, were a suitable policy instrument to achieve this objective. Thus, new scientific evidence challenged the underlying policy design and policy detail beliefs that had formed between the 1970s and 1990s as a form of long-term constructivist learning and that had developed into a societal consensus in favour of renewable energies by the early 2000s. Not all groups involved reflected on the scientific input in the same way. The economic development focused actors did acknowledge the new evidence, but viewed it as contested with regards to its effect on food prices:

> [Biofuels] have the highest criteria (…) to meet before they can be used. Everyone talks about using palm oils for biofuels, nobody cares that palm oil is used in our toothpaste, in cosmetics, in medicine, in lubricants and everything. And basically an only small fraction of about 3 per cent ends up as biofuels. And everybody wants sustainability criteria for biofuels, but nobody cares about what happens to the rest.
>
> (EC 4)

Which was framed similarly by another key actor within the European Commission:

> The timing was such that all sorts of practically everything was bad in the world was being blamed on biofuels. (…) The fact that EU biofuels demand was so trivial and barely significant didn't matter at all. People just saw high food prices and EU demand and said that it was EU energy policy driving all of this.
>
> (EC 8)

This resulted in two coalitions with differing policy detail beliefs. Especially the environmentally focused actors such as environmental NGOs and environmentally minded departments within the European Commission and in the member states reflected on the new scientific evidence and came to change their beliefs on the climate performance of biofuels:

> It was also the scientific community that was having different ideas and giving contradictory advice, so that certainly did not help in giving policy-makers a clear signal, and that was giving room to different lobbies to go for their own interests. So from a political perspective you had the agricultural lobby in favour, you had more the environmentalists being more concerned about the issues, but science was in a way not giving a clear signal to either of the two, and that caused a difficult discussion where the Commission was quite dominant, because there was a lot of arguments going back and forth, and if the science is not very clear, then it is the Commission who can play around with that.

> (EP 4)

Shared and diverging beliefs of the coalitions

The controversy between the environmentally-minded and the economic development-minded coalition was based on diverging deeper beliefs and policy detail beliefs related to the new scientific evidence. Actors shared the wider policy beliefs that carbon dioxide emissions needed to be reduced to mitigate climate change, but they had very different perspectives on *how exactly* this should be achieved and how scientific evidence should be interpreted. The disagreement within the European Commission regarding these policy detail beliefs was so strong that it could not find a common language to respond to the media debate during the drafting process in 2007/ 2008:

> [The food versus fuel debate] took off during the year when we were drafting the directive. And during that year, because there were different views inside the Commission, it was not possible for the Commission to externally express any opinion or even any scientific response to the statements that were being made.

> (EC 5)

The food versus fuel debate also affected the effectiveness of policymaking within the European Commission given the need to nevertheless respond:

> The experience was rough and the timing [of the food versus fuel debate in 2007/08] was unfortunate. At one point I think two thirds of [the renewable energy] (…) unit were occupied with bio-energy discussions and sustainability discussions so it took up a vast amount of effort and resources

> (EC 8)

The coalitions disagreed about the biofuels component across the European institutions, mostly due to different underlying beliefs. Similar to other policy areas in the EU and the US, each coalition included governmental and non-governmental representatives (Baumgartner 2007). Members of the economic development focused coalition came predominantly from the Directorate Generals for Energy and Transport (DG TREN), Agriculture (DG AGRI) and Trade (DG Trade) within the European Commission, the biofuels industry, automotive industry and conservatively leaning parties in the European Parliament as well as from several member states. Members of the environment focused coalition came predominantly from the Directorate General of the Environment within the European Commission, the Green Alliance in the European Parliament, environmental and social non-governmental organisations and from different member states.

These two groups had characteristics similar to Sabatier's advocacy coalitions (Sabatier 1988; 1998; Weible and Sabatier 2009), where coalitions with diverging beliefs and policy objectives engage within an issue-related policy subsystem such as biofuels policy. The RED coalitions used different strategies to win over the other coalition and achieve decisions by governmental authorities that were in line with their underlying beliefs. The two coalitions used these strategies to align the policy outcome with their beliefs on the importance of acting on climate change (deeper beliefs), what overall policy approach should be taken (policy design beliefs) and how exactly the policy instruments should be designed (policy detail beliefs), whereby the scientific knowledge affected their positions differently. The key change compared to learning in the overall RED was the introduction of new scientific evidence in 2007/ 2008 that resulted in contested scientific evidence regarding first generation biofuels' contribution to climate mitigation. The biofuels controversy can be seen as reaction to

developments in the socio-political landscape: the introduction of new but contradictory scientific evidence and the overall negative public reaction to the discrepancy between the new evidence and the policy development.

There was a shared policy design belief among stakeholders and decision-makers that alternatives to fossil fuels should play a larger role in the European energy mix. The policy detail beliefs however, i.e. the exact means of achieving this policy objective, became contested. The negotiations were less based on scientific evidence but on political horse-trading (EC 6; EC 9; EC 12) and policy-based evidence gathering (Sharman and Holmes 2010). Renewable energies including biofuels were still widely regarded by the economic development coalition as desirable alternative to fossil fuels from an energy security, economic development and increasingly climate mitigation perspective until 2008 (EC 1; NMS 1; NMS 7; NMS 8; SMS 4).

Actors however who were deeply involved in promoting all renewable energies as desirable policy instrument to address climate change did not explicitly change their policy detail beliefs. Some reflected on the evidence and decided to ignore it, thus entering defensive avoidance (Bouckenooghe et al. 2007; Janis and Mann 1977), which was facilitated by group think (Janis 1972) as they were in the 'driving seat' of negotiating the details of the legislative proposal. It is important to recognise that the economic development focused coalition had not the 'luxury' of reflecting on the new evidence to subsequently change its position. Dunlop (2010) arrived at a similar conclusion in her analysis of the implementation of the 2003 biofuels directive in the UK. Instead, actors entered into defensive avoidance (Janis and Mann 1977) to avoid having to reflect on the scientific evidence. A key observation is also that the scientific debate shifted towards a consensus on the negative impacts of biofuels after the economic development minded coalition had succeeded in gaining a political mandate for the 10 per cent target in the European Council in 2007 and was therefore 'locked-into' a position that was difficult to change without losing face:

> What was also very clear that from the Commission's perspective, they were already married to their 10 per cent target so to say, so they didn't want a too fundamental discussion on the targets, because that was the basis of the RED, and they were afraid that if this discussion on the biofuels was getting too loud, it would also be fundamentally in the discussion whether the targets should be dropped or not. And therefore the European Commission was also very much pushing of keeping these targets and trying to downplay the scientific debate there.

> (EP 5)

145

While the environmentally minded coalition understood scientific evidence from a positivist point of view, key actors in the economic development minded coalition pointed towards the competing scientific findings and the lack of a scientific consensus between scientists from a food, energy and environmental perspective (EC 5; EC 9; EC 28; EP 5). Therefore, the scientific studies provided were framed through a political lens in support of the political objectives that included interests of the industry and agricultural lobby as well as many policy-makers in the member states, who had a high regard for rural development and energy security:

> There was also a debate on what do to with the specific target of the transport sector, and interestingly this was a kind of classical political deadlock we had there, because the politicians already agreed to come forward with a 10 per cent target on renewables for transport, and politically it was already impossible to give up that target, that would have been seen as a loss of face, you know these kind of political issues that sometimes become more important than scientific arguments.

(EP 4)

The lack of a clear scientific consensus either in favour or against biofuels opened up the space for interpretation of scientific studies in favour of political objectives, what exacerbated the controversy (see also Sarewitz 2004):

> There was this study by Tim Searchinger in early 2008 and we started the discussion inside the Commission about what we should do and so on. (…) It was very difficult for the Commission as a body to take into account the new scientific evidence because it questioned the legitimacy of the policy basically.

(EC 12)

And:

> There was another study by [a] Professor (…) who was basically sponsored by the biodiesel industry and came out with different factors for ILUC which funnily enough gave biodiesel quite a low ILUC factor (…) that certainly came out of nowhere.

(NMS 11)

This was confirmed by an observer from a large member state:

> These governmental agencies are making a lot of scientific studies, as do we with our research projects, and then we pull a few numbers out that support our argumentation. And it has been confirmed that these studies are a good basis for the Commission's argumentation to defend its proposal.

<div align="right">(NMS 4)</div>

The proposal put forward by the European Commission on revising the biofuels aspects of the 2009 RED to take into account indirect land use changes (EC 2012) indicates limited learning on the individual level, but to a lesser extent on the organisational level as the ongoing negotiation deadlock between the coalitions illustrates. Changes in policy detail beliefs would have meant to take a stronger precautionary approach towards the use of biofuels and to not simply limit the amount of first generation biofuels that can be counted towards the 10 per cent target on renewable energies in transport. Instead, phasing first generation biofuels out and only accepting sustainable biofuels would have evidenced changes in beliefs (as emphasised by ENGO 1; ENGO 2; ENGO 3; NMS 7). Members of the economic development minded coalition did not change their deeper beliefs to acknowledge the overall planetary boundaries and negative environmental consequences of the dominant neo-liberal economic development model.

Evidence for this conclusion is that the policy proposal on indirect land use changes put forward in 2012 only mitigated the worst consequences, but did not take a strong precautionary approach to biofuels (EC 2012) as demanded by the environmental coalition. It rather continued with incremental changes to the business-as-usual status quo. In particular, the European Commission proposed to limit the amount of food-crop based biofuels and bioliquids that can be counted towards the 10 per cent target to the current consumption level of 5 per cent (EC 2012: Article 2(2c) ii), what effectively means that the remaining 5 per cent of renewable energies in transport would have to come from second generation (non-food based) biofuels or they would not count towards the overall target. It also included incentives for electric cars and especially second/ third generation biofuels with no or low indirect land use change emissions via avoiding to create additional demand for land. These include a focus on longer types of straw, different types of waste and algae (EC 2012; EC 4; In-

dustry 4). This quote illustrates that the expectation of some members of the environment-minded coalition for learning would have been a shift in deeper beliefs that should also be reflected in the policy proposals:

> This is where I think we have failed to learn certain lessons. Because if you look at the biofuels debate, yes, we have ILUC, we have certification, there is a certain recognition that we cannot use food crops biofuels, but this is where it generally stops. And wherever you go, you hear that 'yes, we have to do second generation, which will be based on cellulars, that is the next step.' But people are not questioning if that is going to be the best thing.
>
> (EC 10)

The proposed changes to the directives indicate that there was no overall shift in deeper beliefs that would be reflected in the policy design and policy detail beliefs such as proposing more substantial safeguards to the use of biofuels than accounting rules. Thus none of the coalitions changed their deeper beliefs. Both continued to hold the same policy design beliefs that the problem of climate change needed to be addressed by reducing emissions and that renewable energies were overall a desirable policy to achieve this. We did however observe what appears to be a change in policy detail beliefs among the economic development focused coalition as they allowed the the European Commission to propose a modification to the RED. The next section 'zooms in' to what appears to be a case of constructivist learning on the individual level that may have resulted in constructivist learning on the organisational level.

6.3.2 Learning on the individual level?

Individuals learn from experience when they are involved in the policymaking process or are presented with new information (Bennett and Howlett 1992; May 1992; Zito and Schout 2009; see chapter 2 and 3). The prerequisite for learning to occur is that individuals reflect on the information and its relevance for their policy proposal (factual learning). This can also include learning how to more effectively participate in or manipulate the process according to the actor's policy objectives, i.e. political learning as an aspect of experiential learning.

Experiential and factual learning

Key actors pointed out that there was a difference in the RED between the ways in which policy officers as experts and higher-level civil servants such as Heads of Units, Directors as well as politicians learned (EC 2; EC 3; EC 4; EC 7; EC 14). Experts engaged deeply with the available academic literature and scientific studies in the policy field. Depending on their previous knowledge, the learning curve was more or less steep. The higher-level civil servants and politicians learned predominantly from being involved in the policymaking process and attending meetings. Most had no deep expertise in the specific policy area but took on the role of managers, thus learning facts by being involved in the process:

> So when the industry comes to talk, they come to [the head of unit at the European Commission], and he always has an expert next to him. So he would give the general position and leave the specifics to the experts. If you do this a few times, you learn it (…). So you have some people who are trained, you need a good briefing, and you need to trust your people. And the moment you have that, it goes well because you participate in the meetings, you hear the NGOs and the industry speak, you hear what positions your technical and policy guy gives, and of course they are not stupid, so if you are interested in your job, you learn. So for all of them, there is a learning process. They have to be involved.

> (EC 4)

This was confirmed by another technical expert:

> I guess to some extent once the subject matter becomes quite technical then the head of unit is happy for their expert task officer to play a role because they don't necessarily know the material so sufficiently to be familiar with all the ins and outs and all the arguments so sometimes it has to happen because it's technically complicated.

> (EC 8)

Yet it was problematic when top-level decision-makers only relied on the information they received from their experts as it had most likely been filtered in the process of summarising complex technical issues into briefing notes or short overview presentations (EC 4; EC 9; EC 12). Especially if there was no scientific consensus, technical experts may have been tempted for personal or political reasons to provide information that was biased in favour of one side. This carries the possibility that

higher-level decision-makers only learned what they were 'taught' (Bomberg 2007; Haas 2000). This may have been unintentional, especially when the value-laden character of science is taken into account (Jasanoff 1990; 2004).

But even among those who could be considered experts with detailed technical knowledge on specific sub-elements learning occurred by their continued involvement in the negotiation process and debates among the competing coalitions:

> Also having to argue about it year after year. Those experts who were involved in this, they just could not but learn from each other. I learned a lot from it and I realised issues that I did not consider as important before are important and some were confirmed, some were not, so it is an interesting exercise that will make an impact. The problem here is how you can make others accept what you have learned. That is a more difficult thing because you have to go through this process to appreciate certain factors, and it is very difficult to communicate this in a simplistic fashion to hierarchy or to outside stakeholders, because it is not so trivial. And this is why still so many people deny certain things.

(EC 10)

This type of learning however remains rather 'normal' learning (Rietig and Perkins 2013) that automatically occurs in any policymaking process. Of course individuals accumulate information and experience by being involved. Yet, as they need to defend their policy detail beliefs in their discussions with the other coalition, actors look for evidence to support their arguments, examine the issue from different angles and thereby also reflect on their own policy detail beliefs. While there is no conclusive evidence that the actors involved changed their policy detail beliefs (what would be constructivist learning), they did acquire more knowledge by looking for supporting arguments and evidence and also learned by being involved in the process and tried to improve their strategies in influencing the policymaking process. There is insufficient evidence allowing the conclusion that individuals within the economic development minded coalition changed their beliefs. However, even if they wanted to, their path-dependent lock-in to the 10 per cent target would have meant a loss of face, what was avoided by entering defensive avoidance (EC 4; EC 12):

> I think the whole thing had gotten really emotional. (…) I also think there was this sort of psychological mechanism of denial, you know, that you don't want to admit a piece of evidence that goes against what you really think is right.

(EC 12)

Another aspect of defensive avoidance that occurred in the Council discussions regarding a policy reform of the indirect land use changes was the fact that in the meantime member states invested in an industry focusing on first generation biofuels. Changes to the RED thus came with significant economic costs and loss of trust in policymaking:

> Like especially I think the central and eastern European countries, they haven't had the same boom in (…) wind, but biofuels they've done really well in so I think it's quite frustrating then to have the rug sort of swept out from under their feet. (…) I don't think they really recognise the need to change their direction.

> (NMS 11)

Members of the economic development focused coalition however changed the way they behaved in the negotiations in a manner that could easily be confused with constructivist learning. This type of learning about how to best protect deeper beliefs by optimising political tactics is referred to as political learning (Gross Stein 1994; Holbrook 2007; May 1992; Nadeau, Niemi, and Amato 1995). However, this kind of experiential learning is to be expected in any policymaking process. The economic development minded coalition acknowledged carefully the need to address indirect land use changes between the adoption of the RED (EU 2009a) and the Indirect Land Use Change proposal (EC 2012):

> Yes, [there was reflection and learning in the Commission]. I think the argument has become a bit more nuanced, a bit more aware of the complexity and the sensitivity of it all. (…) It's clear now that we had a huge increase in world food prices in 2008-2009, which was triggered by a range of bad harvests, bad weather, and rapidly growing food demand. Food prices came down again so in that sense the absence of the correlation with EU biofuels demand is there.

> (EC 8)

And:

> We learned a lot more about the land use stuff in the years after than we did at that time, so I could not really say that I learned it in the period that I was talking about.

> (EC 5)

Hindsight is useful. We took a very sectorial approach to dealing with the biofuels issue. It's quite complicated which made it difficult for people to understand and created quite a bit of hostility. I think it would have been better to take a much broader approach to the idea of sustainability in agriculture and forestry rather than focus purely on biomass in energy.

(EC 8)

This change in tactics to acknowledge the necessity to address indirect land use changes in the area of biofuels (EC 5; ENGO 1) however was rather a result of experiential learning than constructivist learning based on changing underlying beliefs. By being involved in the negotiation process between two coalitions, actors also learned that "you have to give things and you can't just say no and defend everything. Then the things that you do defend are more credible" (EC 5). Consequently, a shift in the negotiation position can also be the result of experiential learning on how to play negotiation tactics better under the involvement of long-term considerations or the protection of deeper beliefs and important policy detail beliefs, as illustrated by the observation of a member of the competing environmentally minded coalition:

The fact that many people have realised that they won't simply convince public opinion has also contributed that it is better to come up with some corrections, amendments or improvements.

(EC 10)

Thus, there was also overall support within the European Commission for a correction of the RED on the indirect land use changes:

On the ILUC side the whole impact of the first generation feedstock and the potential for bad practice and higher emissions coming from that process has meant that there has been an overall agreement to try to limit the use we make of first generation in preference of second generation so that's the key element of the ILUC proposal I guess is that we're proposing to cap first generation and then provide extra incentives for second generation because they are generally better and more reliably sustainable than first generation so in that sense there's a bit more clarity but not complete clarity on the issues, on the evidence, on the complexity of the relationships and that's, I think, the ILUC proposal shows progress compared to the discussions of the renewables directive and the sustainability criteria there.

(EC 8)

Public opinion may have been a major outside motivation for policy-makers to reconsider their policies. Especially in the case of biofuels, where the public debate and public criticism regarding the indirect land use factors remained and was further underpinned by a an emerging scientific consensus towards the mixed climate performance of biofuels and their negative impact on food security (EC 28; Keyzer, Merbis, and Voortman 2008; Kullander 2010), there was considerable pressure on the economic development minded coalition to make concessions regarding indirect land use changes. This however does not automatically mean that the coalition changed its policy detail beliefs. It may have just been a tactical move based on public or political pressure, or gaining experience regarding unintended consequences of the original policy by observing its effects over several years:

> And because of the complexity of all this, there was an increasing realisation, but with *[DG TREN]* as well, they learned to be more careful with certain things because higher prices can undermine a policy and it's not necessarily good, if you get too much, at some point it may come back and haunt you. I think people have become more considerate about unintended consequences. Much of the ILUC discussion was about that thing in that sense. (…) So it's not just to get the right numbers in the model, but also more fundamental discussions about population growth, future demands and so on. It made people think in a more nuanced way, so there was some kind of learning effect form the RED in the ILUC discussions.

(EC 11)

There is also evidence for experience-based learning on policy instruments, resulting in a better familiarity with the implications of different instruments available in biofuels policy:

> There's been a lot of learning in terms of the different instruments that were used and that's one of the things that will be coming out in [the next Commission] guidance, the need for much greater flexibility in market responsiveness of instruments to be able to reflect things like the reduction in costs (…) from the scaling up of industrial activity producing renewables.

(EC 8)

The environmentally focused coalition did not only change its policy detail beliefs based on the new scientific evidence that was contrary to the assumption that all renewable energies contribute to climate mitigation, some if its key actors also reflected on the learning experience which can be regarded as constructivist learning on

the individual level and to a certain extent also on the organisational level within the respective government/ European Commission departments:

> I mean people have been a bit traumatised with this file (…). Everybody in the DG was telling me "Oh, it's the worst file I've ever seen". (…) It was extremely difficult and there was a lot of disgrace put on the Commission as well when you have admit that you've made a policy that doesn't make any sense which results go contrary to the objective. It's very difficult. (…) The Commissioner [said during] an official [when he] (…) was talking about (…) another hot topic (…) "Yeah, we need to make sure we take France into account because want to avoid another biofuels."

> (EC 12)

A representative in the Council concluded on the RED that

> we put in place a policy that has massively incentivised the development of an industry and we didn't take into account the full impact and this needs to kind of be corrected.

> (NMS 11)

Based on above discussion it can be concluded that by being involved in the policymaking process there was experiential learning among all policy-makers and also an increase in knowledge about the specific policy issues during the drafting and negotiation period of the RED and the Fuel Quality Directive, but also afterwards as actors reflected on the increasing scientific evidence in favour of the environmentally minded coalitions' policy detail beliefs. This is the most relevant finding on learning: The environmentally minded coalition changed its policy detail beliefs, but this resulted in a 'fierce fight' with the other coalition that did not regard the contested scientific evidence as sufficient to adopt a precautionary approach, especially as it was already locked-in to its policy development path before the scientific evidence emerged. The other hindering factor was the different framing of biofuels as they were not only seen from an environmental or climate change perspective, but also their economic benefits were taken into account. The key finding in the analysis of learning on the individual level in transport policymaking is that no changes in either policy detail or deeper beliefs could be identified and clearly process-traced to the key individuals involved in the economic development focused coalition, although the proposal on Indi-

rect Land Use Changes of the European Commission would suggest so at first glance. On the individual level, this was not a result of constructivist learning, but of political learning, both in terms of experience and knowledge, among key actors that became locked-in to a policy pathway due to insufficient information at a crucial time:

> We were also at the end of the era where we had huge food surpluses and very low food prices so that wasn't even an issue on peoples' radar when we first quoted biofuels and circumstances have changed considerably since then so I guess it's not only the learning that goes on through the analysis which is triggered by the political debate, it's also, as with all social sciences, the circumstances, the environment in which we're working changes and that has a very significant impact on the interrelationships with the policy and what the policy does in the real world. If there's not static as well as our own learning the whole circumstances of global food production, food demand, have changed significantly.
>
> <div align="right">(EC 8)</div>

6.4 Discussion and conclusion on Learning in the Renewable Energy Directive

The analysis of the drafting and negotiation process of the Renewable Energy Directive allows detailed conclusions on when, why and under what circumstances learning occurred and what factors hindered it. Overall, the empirical data confirms the theoretical framework for identifying learning and supports the hypothesis that learning predominantly occurred on the individual level in the form of factual and experiential learning, while on the organisational level bargaining, national and organisational interests remained dominant and prevented individual learning from influencing the policy outcome. Especially on the organisational level power politics and normal bargaining tactics as well as the prevalence of powerful vested interests voiced by lobbyists remained dominant.

The 20 per cent target of renewable energy by 2020 was part of a wider climate package that enjoyed strong support from the Heads of States in the European Council. The overall political consensus made it difficult for individual actors to dis-

agree with the direction of moving towards ambitious climate mitigation. This was further supported by the progressive leadership role the EU took on within the international climate change negotiations given the weakness of the United States and other developed economies on the issue. The favourable economic climate between 2005 and 2008 also contributed to the window of opportunity allowing the RED to still ride on that 'wave' (EC 3). Actors agreed that by 2012 this window of opportunity had closed and even maintaining the current level of ambition was very difficult (EC 6; EC 24) as member state push-backs on negotiations around the 2050 Climate roadmap illustrate. The following table provides an overview of the findings on learning in the Renewable Energy Directive (Table 4):

Table 4. Overview of findings on learning in the Renewable Energy Directive. Compiled by the author.

	Alternative explanations	Factual learning (change in knowledge)	Experiential learning (change in experience)	Constructivist learning (change in underlying beliefs)	
Organisational level	**Yes**: Obligation to implement Kyoto Protocol Bargaining among actors on policy details (Commission, Parliament and Council)	**Limited**: More information about available policy instruments, but incremental	**Limited:** Several stages of renewable energy development (2001, 2003, 2007 /08)	**Deeper beliefs**	**No change**
				Policy design beliefs	**No change**
				Policy detail beliefs	**Strategic change:** European Commission adjusted some policy instrument choices to protect is policy design beliefs
Individual level	**Yes:** following orders and carrying out institutional objective (what requires some 'normal' factual and experiential learning)	**Yes**: Senior level actors involved gained expertise on renewable energy	**Yes**: Members of Parliament and actors at the Commission/ in the Council gained experience by working on the RED, but overall limited as few key actors were deeply involved (who were already experts)	**Deeper beliefs**	**No change**
				Policy design beliefs	**No change**
				Policy detail beliefs	**No change**: Defensive avoidance among economic development-minded coalition to acknowledge scientific evidence contrary to policy detail beliefs

Especially the interdependence between shifts in the socio-political landscape and the individual level of learning among policy-makers is crucial. This finding is insofar a novelty as the policy learning literature has been focusing on the organisational level of regularly information exchange with special attention to changes in knowledge and experiential learning. Both the socio-political landscape and the individual

level with cognitive learning perspectives have rarely been taken into account by the literature on policy learning in the EU, with its focus on 'normal' learning on the organisational level (see Koch and Lindenthal 2011; Schout 2009; Zito and Schout 2009). This finding however is not specific to the EU's unique governance system. Following Nedergaard (2008), who regards the EU as 'semi-federalist system', the findings on learning in the EU are quite similar to the findings on learning in the United States (e.g. May 1992; Montpetit 2009; Weible, Sabatier, and McQueen 2009). This conclusion underpins Montpetit's (2009) findings on a similar lack of learning between Europe and the United States. This case study however further improved the understanding of where learning occurs and when it matters. The second key finding is that little learning has been transferred to the organisational level and much less to the policy outcome.

The biofuel controversy also illustrated that learning is not necessarily always positive, but particularly political learning can also have normatively negative, unintended consequences. This may happen if decision-makers learn how to use the 'right' scientific studies to support the desired position, learn how to push proposals through the European Parliament and Council working groups and especially when scientific knowledge is contested instead of consensual (Dunlop 2010; Sharman and Holmes 2010). Especially on the organisational level alternative explanations such as power politics, normal bargaining tactics and the prevalence of powerful vested interests voiced by lobbyists remained dominant as compared to learning.

Even if individuals in the RED had learned and as a result of strong personal beliefs pushed the issue forward they used negotiation tactics, power and personal relationships to accomplish their objectives. Convincing others of the importance and desirability of their objective could clash with national or particular political interests. Even if individuals reflected upon other individual's persuasive proposals and changed their underlying beliefs, they may not have been able to act upon it in a coherent manner. This may lead to learning on the individual and organisational level that appears as non-existent learning as it is hindered by policy path-dependencies of decisions based on incomplete information, lock-in into policy pathways creating industries with vested interests and resulting defensive avoidance in the struggle to remedy some of the unintended policy consequences. Table 5 summarises the findings on the biofuels controversy.

Table 5. Overview of key findings on learning in the biofuels controversy. Compiled by the author.

	Alternative explanations to learning	Factual learning (change in knowledge)	Experiential learning (change in experience)	Constructivist learning (change in underlying beliefs and perspective)	
Organisational level	**Yes**: Lack of scientific consensus due to competing studies in 2006/ 2007 opened up political space for framing science based on interests; once locked-into position, change difficult as it would mean loss of face	**Yes**: Increase in knowledge due to emerging scientific evidence on negative environmental impacts of biofuels	**Yes:** By being involved in the process; improved experiential learning as more decision-makers were involved in discussion as usual since the disagreements between the coalitions required intensive debates; also more people involved as biofuels policy is split across several directives with different Directorate Generals in the lead	**Deeper beliefs**	**No change**
				Policy design beliefs	**Change in long-term:** formulation of beliefs that climate change exists and that policy must react with legislation **No change in short term**
				Policy detail beliefs	**Environmentalists: Change** Reflected on evidence and changed their beliefs **Economic development coalition: no change, defensive avoidance**
Individual level	**No:** few alternative explanations as individuals involved were forced to engage in discussion due to controversy; also no absolute experts as new policy field with evolving science	**Yes**: Increase in knowledge among experts and higher level decision-makers by being involved in process and having to engage with details to defend their position in negotiations	**Yes:** Learning by doing, learning to play negotiation tactics better and to agree to opposing coalitions demands on minor issues to hold position on more important issues closer to policy detail/ policy design and deeper beliefs	**Deeper beliefs**	**No change**
				Policy design beliefs	**No change**
				Policy detail beliefs	**No change**: Defensive avoidance among economic development-minded coalition to acknowledge scientific evidence contrary to policy detail beliefs

These empirical findings match with the political learning May (1992) encountered, which prompted conclusions on policy failure. Similarly, Radaelli (2009) and Koch and Lindenthal (2011) described behaviour that could be termed as strategically dealing with input to avoid deeper reflection and instead engaging in political learning or policy-oriented learning (Sabatier 1987) to protect deeper and policy design beliefs instead of adjusting them to the new input – in short, defensive avoidance due to organisational or political hindering factors such as policy lock-in and path-dependence. These findings point towards the wider literature on power relations and policymaking dynamics in the EU. Overall, the different coalitions within the European Commission engaged in what could be regarded as strategically influencing the

policymaking process as active protagonists with their own political interests based on normative beliefs and differing perspectives about policy priorities.

Thus, the findings are closer to contributions that address institutionalist perspectives of public policy focused on rational actors, political interests and the strategic use of knowledge to influence the bargaining process (Elgström and Jönsson 2000; Warntjen 2008; 2010; Weible 2008) frequently associated with intergovernmental bargaining in the European Council and intergovernmental conferences (Clegg 2010; Moravcsik 1999; Slapin 2008) as well as between the European institutions (Costello and Thomson 2013; Roederer-Rynning and Schimmelfennig 2012) or more adversarial policy subsystems such as the United States (Weible and Sabatier 2009; Weible et al. 2011b). There is a limited relevance of the findings to the constructivist notion of deliberation, persuasion and cooperation (Risse 2000; Risse and Kleine 2007), or cooperation observed in the 'Open Method of Coordination' (Nedergaard 2007) and 'new modes of governance' literature (Eberlein and Kerwer 2004). These findings point towards alternative explanations for policy change rather than learning at the intersection of constructivist and institutionalist perspectives regarding the use of knowledge, rationality of actors, organisational/ political interests and the (limited) role of learning therein. While some learning occurred, it was not decisive for the policy outcome to emerge as the policy process was dominated by coalitions trying to achieve their policy objectives while saving face.

The following chapter examines learning at the example of integrating climate mitigation and adaptation aspects into the Common Agricultural Policy, which provides an interesting contrast to the Renewable Energy Directive given its status as a core European policy that is constantly being reformed as well as its financial volume comprising a third of the EU's budget.

Chapter 7

Learning in policy reform processes:

Greening the Common Agricultural Policy

This chapter connects findings from the existing literature on policy change in the CAP with learning and thus contributes to a deeper understanding of the role of learning in policy reform processes and of the conditions for learning to impact the policy outcome at the example of climate policy integration. As suggested by Sabatier (1988), the appropriate time frame for analysis is about a decade starting with the 2002/2003 'Fischler Reforms'/ Mid-Term Review and ending with the adoption of the 2014-2020 Common Agricultural Policy in the European Parliament and the Council in June 2013. The first part of this chapter reviews the literature on how the CAP evolved over the past 3 decades, points out the value added of this research and analyses the greening of the CAP 2014-2020 reform (EC 2011b; EC 2011c) to determine the actors involved and the socio-political framework conditions. The second part discusses what aspects of learning occurred among the European institutions (i.e. on the organisational level) and among the individual policy-makers involved (i.e. on the individual level). It finds that learning occurred in several but not all aspects, that policy entrepreneurs played a key role in pushing for a policy outcome and that this policy outcome was less the result of learning on the organisational level, but rather the result of how the 'institutional machinery' of the EU works.

7.1 Review of the CAP literature and shifts in the socio-political landscape

This chapter is concerned with climate policy integration into the European Common Agricultural Policy (CAP) as one of Europe's largest and oldest policy areas occupying a major share of the EU budget. As a consequence of this characteristic, there is a considerable literature examining the CAP reform processes of the 1990s and early 2000s, raising the suspicion that there is little new to be said about the CAP. This literature predominantly focuses on the political economy of the reforms (e.g. see Daugbjerg and Swinbank 2007; Olper 2008), the interplay of advocacy coalitions (e.g. Feindt 2010; Nedergaard 2008) as well as the role of the European Commission and windows of opportunity at creating a 'perfect storm' for the reforms of the early 2000s (Swinnen 2008a). So far, only one contribution began to link aspects of learning to the CAP (Feindt 2010), yet stopping short at the 2003 Fischler reforms without systematically examining what aspects of learning occurred and whether these mattered for the policy outcome to emerge.

All have however made valuable contributions on providing insights into the development of the CAP, including its greening aspects since the 1980. They calculated the appropriate levels of support, explained policy measures such as cross-compliance and decoupling or discussed interdependencies with the World Trade regime (see Daugbjerg 2003; Daugbjerg and Swinbank 2007; Olper 2008). They also elaborated on wider shifts in the socio-political landscape, which have been also pointed out and confirmed by a number of interviewees involved in the CAP since the 1990s. These shifts include the emergence of environmental NGOs as counterbalancing actors to the agricultural industry lobby, an increased environmental awareness among the public, criticism of the CAP as wasteful and environmentally damaging, as well as increasing demands that public money also needs to serve the public good if taxpayer support for the CAP is to continue (see Feindt 2010; Swinnen 2008a). Furthermore, previous contributions also analysed the relevance of windows of opportunity, advocacy coalitions, policy brokers as well as policy entrepreneurs such as Franz Fischler, who strongly shaped the policy outcomes of continuous reform rounds (see Feindt 2010; Nedergaard 2008; Swinnen 2008a).

However, little has been said so far about the extent to which learning among individuals and among the European institutions occurred in the policy reform process of the CAP and whether the outcome would have been any different in the absence of learning. Furthermore, this is the first case study to examine whether any more complex belief changes occurred in the policy reforms that go beyond 'normal' learning such as increased knowledge and experience. This chapter also provides the first empirical case study on the explicit integration of climate mitigation and adaptation objectives from 2008 onwards into the CAP, which initially appears to be a considerable change in a policy that is often regarded as 'dinosaur' (NMS 4) whose time has passed. The most recent analyses on policy change in the CAP (e.g. Feindt 2010) analysed the Fischler Reforms (until 2003), but so far there is no contribution in the academic literature that provides detailed insights into the more recent developments over the past decade, starting with the 'Health Check' in 2007/ 2008 and continuing to the post-2013 CAP reform.

This section focuses on providing a better understanding of how the greening aspects in the most recent post-2013 CAP reform came about as a result of changes in the wider socio-political landscape. This contains explanatory factors to learning as well as alternative explanations for policy change, which will be analysed in the next sections. Climate and environmental policy integration via financial instruments is referred to as 'greening' in the CAP, which emerged during decades of reform process:

> Normally the CAP is always depicted as a dinosaur-kind of policy but if you go back in the history of CAP then from the 1970s onwards it is a subject of reform (…). In that sense people who say that agricultural policy in the EU is a dinosaur-like policy in my view they are wrong.

> (NMS 4)

Thus, one could expect a multitude of learning processes over the various reform rounds in the long term. To identify learning, it is important to separate long-term changes in the socio-political landscape from actual learning processes in policymaking. Much has been published about the CAP reforms of the 1990s and early 2000s (e.g. Daugbjerg 1999; 2003; Daugbjerg and Swinbank 2007; Feindt 2010; Nedergaard 2006c; 2008; Swinnen 2008a) so that this review focuses on the greening aspects and the most recent 'Ciolos-Reform' for 2014-2020, which was concluded in the summer of 2013.

7.1.1 Early greening in the 1980s and 1990s

The climate policy integration measures in the proposed 2014-2020 Common Agricultural Policy appear as a discontinuation of previous reforms, particularly in connection with the objective to dedicate 20 per cent of the European Union's 2014-2020 budget to climate actions. If climate policy integration is however examined in its components relevant to agricultural policy such as increasing the carbon sink via measures that increase the share of green vegetation and adapt to unavoidable consequences of climate change, most of its aspects can be linked to the 'greening' of the CAP that can be traced back to the mid-1980s. This section illustrates the early origins of climate policy integration in the CAP, which were framed as reaction to wider shifts in the socio-political landscape.

In 1985 the concept of ecological set-aside areas and premiums for environmentally friendly practises beyond compliance was introduced on a voluntary basis when the President of the European Commission Jacques Delors and the European Commissioner for Agriculture Frans Andriessen recognised the negative environmental impacts of intensive agriculture as one of the CAP's policy failures (Feindt 2010: 303). The green paper emphasised the "choice of society in favour of a 'Green Europe'" (Commission of the European Communities 1985: II; Feindt 2010). This green paper set out major reform elements the CAP followed over the next 28 years.

The reform headed by the European Commissioner for Agriculture and Rural Development Ray MacSharry in 1992 marks the formal introduction of environmental considerations into the CAP (Daugbjerg and Swinbank 2007). It coincided with an increasing public environmental awareness in the run-up to the 1992 Rio Earth summit (EC 25; ENGO 9) and a rising interest of green non-governmental actors in agricultural policy. The green movement strongly criticised the negative environmental consequences of intensive agriculture, what prompted MacSharry to strongly emphasise farmer's crucial contribution to a vivid rural society and their central role as stewards of the environment in an attempt to win the green movement's support (Moehler 2008: 78). The 1992 MacSharry reform responded to the environmental movement's criticism in three ways. The key aspect was the shift from encouraging intensive agriculture towards supporting extensive agriculture. This included replacing price sup-

port with direct payments to farmers (pillar one of the post-2013 CAP). Furthermore, setting aside land became obligatory, what was seen as major change in the policy paradigm (EC 21; EC 24; EC 25). Member states could reward farmers for going beyond minimum requirements for good agricultural practises with the 'agri-environmental programme' and they could penalise insufficient compliance with environmental protection requirements via reducing direct payments, using the so-called 'cross-compliance' mechanism (Daugbjerg 2003; Moehler 2008: 79).

In 1995 the European Council requested the European Commission to propose a set of reforms that would prepare the EU for the environmental, economic and social challenges of the 21st century, including the introduction of the single currency, the enlargement to more than 25 member states and reforming the CAP (Feindt 2010). This resulted in the Agenda 2000 reforms. The run-up to the Agenda 2000 reforms coincided with the Cardiff process on environmental policy integration, which also required the Agriculture Council to revise its contribution; whereby the environmental outcomes of both the MacSharry reforms and the Cardiff process remained far behind the aspirations (Feindt 2010: 305; Lowe and Baldock 2000). The Agenda 2000 reform was prepared by the European Commissioner for Agriculture and Rural Development Franz Fischler and adopted in 1999. It continued the 1988 and 1992 reform direction with the objective to make the CAP more acceptable to the average citizen and consumer with higher direct payments and further price cuts (Swinnen 2008a). The instrument of 'modulation' served the purpose of decreasing incentives for intensive agricultural production. It allowed member states to cap premiums paid to farmers by up to 20 per cent and to redirect these funds to the second pillar on rural development. Key aspects were the introduction of a 'second pillar' on Rural Development, which supplemented the direct payments to farmers in 'pillar one'. The second pillar also contained further environmental measures on a voluntary basis, while its overall financial volume remained at less than 10 per cent (Daugbjerg and Swinbank 2007: 8; Feindt 2010: 305).

The main actors recognise that there were interdependencies to the trade negotiations, especially the GATT Uruguay round (Daugbjerg and Swinbank 2007; Olper 2008) and that the CAP reforms facilitated the 1994 GATT agreement (Syrrakos 2008: 117). However, the EU's chief negotiator in the Uruguay round also emphasised that the GATT/ WTO negotiations were rather a side-effect (Moehler 2008;

Pirzio-Biroli 2008) than a key motivation as hypothesised by some academic contributions (Olper 2008; Swinbank and Tanner 1996; Daugbjerg and Swinbank 2007). EU-internal considerations were more relevant drivers for CAP reform.

In the 1990s, the public debate shifted, as various food-safety crises such as BSE and the dioxin-scandal became a major public concern, along with an increased awareness to improve standards on animal welfare (Moehler 2008; Syrrakos 2008). At the same time, environmental NGOs and consumer organisations entered the circles of agricultural lobbying in Brussels and in the member states. This new group of actors worked closely with the media and was seen as representing wider public concerns (Syrrakos 2008; Nedergaard 2008). Their presence changed the policymaking dynamics, which until then had been dominated by the farm lobbies influencing their member state's ministries for agriculture within the Agriculture Council of Ministers and the Directorate-General of Agriculture and Rural Development in the European Commission (Nedergaard 2008: 185; Swinnen 2008b: 142).

ENGOs based their criticism on scientific studies that confirm the negative environmental effects of agricultural production and criticised its negative implications for biodiversity and cruel practices regarding farm animals (ENGO 1; ENGO 2; ENGO 3; ENGO 8; ENGO 9). They used this knowledge to build momentum and convince society and decision-makers on the national and European level via the media, conferences and direct discussions to take into account wider societal perspectives and to question the 'business-as-usual' industrial production with its negative effects on the environment and food safety:

> The process is that we elaborate our own position, so we start from the science and the experience of the people on the ground. (…) Then we try to convince other people whether it is decision-makers or other stakeholders. (…) We discussed [ideas] with a group of five environmental and sustainable farming NGOs, we negotiated with them a joint vision for the CAP. This was a quite long and painful process. And then we took those proposals mainly to the Commission, but also to all sorts of other stakeholders, and some of those ideas in a bundled version have made it into the Commission proposal. (…) Now we are engaging with the Parliament and the Council.

(ENGO 3)

Another environmental NGO representative emphasised the importance of co-ordination among the environmental lobbyists:

> We form common positions and then we go to the decision-makers with these positions, most of the time we also try to harmonise at least those positions also with other [environmental] organisations.
>
> (ENGO 2)

This illustrates how ENGOs work to form a counter-balance to the agricultural industry lobby. They articulate environmental interests by taking on roles of 'teachers' (Bomberg 2007; Haas 2000) who educate policy-makers and the public by disseminating information on the negative environmental and social effects of agricultural policy. The line between 'teachers' and lobbyists blurs with political demands for environmental focus areas, cross-compliance and decoupling or farm payments from agricultural production. ENGOs were successful in influencing the European Commission to integrate these aspects into the 1992, 2000 and 2003 CAP reforms and to gradually tighten their applicability in the subsequent reforms (EC 14; EC 19; EC 24; EP 4).

A key prerequisite is that environmental NGOs established a high level of trust with representatives of the European Commission so that they could be trusted to safeguard confidential information and act with high integrity. The European Commission saw them as having "very convincing arguments and they certainly have a much stronger control over public opinion, a much better support in public opinion therefore than most farmers organisations" (EC 24). Yet the imbalance between environmental and agricultural lobbyists involved in the CAP reforms is remarkable. Of the dozen major environmental NGOs represented in Brussels, only few individuals are deeply enough involved in the CAP reform discussions to effectively carry out lobbying work and engage with the European Commission on the technocratic level:

> [It is only] a handful that are really on the fight, I am not talking about people who come to meetings and follow because they don't add anything, they don't, they put their logo once in a while but they don't do any of the real footwork.
>
> (ENGO 2)

With the overproduction of the 1980s, worries regarding food security gave way to worries about food safety, especially regarding beef, pork and chicken. Food safety

became a major issue of European concern with the BSE crisis of 1996 (Moehler 2008: 79). Especially the food scares of the late 1990s and early 2000s such as BSE, dioxin, SARS, foot and mouth disease as well as the high use of antibiotics in animal feed raised questions regarding negative implications for human health. This sparked an interest in food production, what resulted in an increase in media reports and shifting public opinion as well as increased consumer demand for organically produced food and higher food safety standards (Nedergaard 2008; Syrrakos 2008). The food scares pushed food safety and agricultural production higher on the political agenda, where it in turn influenced public opinion and resulted in reflection processes, as food scares were "still a top priority of EU citizens. Regardless of what the CAP really had to do with these food scares, the political reaction was to put these problems at the top of the agenda" (Olper 2008: 89). The media supported a change in public opinion, giving "the impression that there is something wrong with our farming industry" (EC 24). Thus, a number of different factors opened up a window of opportunity:

> There was, you know, a great increase in the criticism on the CAP's impact on the environment, but and also food safety and the various crises alerted people. Also, the argument about wasteful production in agriculture and (…) this idea that I think Fischler was attached to, the family farm providing a certain role in society. And I think public opinion, this idea of organic farming, and I think you also had a general criticism of the CAP as wasteful. I think certainly the NGOs shifted their positions. I think this is a very important point. It was not only about agriculture which damages the environment, but also the role that agriculture plays in terms of land management, biodiversity and so on. Certain NGOs became very strong advocates in terms of a certain type of farming. (…) Good agriculture needed to provide a service to society.

> (EC 25)

As a result,

> the CAP had lost its legitimacy among the EU public. In particular, the fact that the CAP was increasingly seen as at the same time hurting EU trade interests, having negative effects on the environment and [being] unable to address the food safety concerns of EU consumers was turning into a major call for reform.

> (Swinnen 2008b: 143)

7.1.2 CAP reforms of the 2000s and the post-2013 reform proposal

Due to the EU's enlargement process and the "partial failure of the Agenda 2000 reforms" (Olper 2008: 86), provisions for a *Mid-Term Review* in 2002/ 2003 were included into the Agenda 2000 decisions. Commissioner Fischler used the Mid-Term Review to introduce more far-reaching reforms of the CAP, which were even coined as 'radical' by key actors and observers and facilitated by a window of opportunity (Swinnen 2008a). The Fischler reforms changed the policy instruments towards the introduction of a Single Payment Scheme by further decoupling farm income from production (Moehler 2008: 78). Farmers were allocated payments per acre of land irrespective of production (Olper 2008: 87). It also strengthened cross-compliance as payments became conditional upon farmers' compliance with environmental and food safety regulations, animal welfare and overall sound environmental practises (Daugbjerg and Swinbank 2007: 8). However, as in the previous reforms, unavoidable compromises with the member states considerably watered down the original proposals (Swinnen 2008a).

The 2008 mini-reform termed *'Health Check'* first introduced the objective of addressing climate change into the CAP (European Council 2009). This marks the first instance of specific climate policy integration. It coincided with the 20-20-20 strategy set out in the Climate and Energy Package (EC 27; EC 2008a; European Council 2007) and paved the way for re-framing environmental into climate policy integration. Besides phasing out milk quotas, assisting some sectors with special problems and improving intervention mechanisms, it further strengthened cross-compliance and reduced 'red-tape' (i.e. bureaucracy) by simplifying rules (European Council 2009). Overall, the Health Check recognised climate change as a challenge, but did not address climate change via increased carbon sinks. It even made a step backwards by abolishing the requirement to farmers to set-aside ten per cent of their arable land for ecological focus areas (European Council 2009).

'Greening' the CAP' (EC 2011b; 2011c) was one of the flagship initiatives of the climate mainstreaming approach (EC 2013) proposed by the European Commission in 2011 for the 2014-2020 Multiannual Financial Framework of the EU (EC

2011a). This climate policy integration was applied to policies not automatically contributing to climate mitigation, but requiring intervention through legislation, conditionalities and financial instruments (Rietig 2013). The major change for pillar one was to dedicate 30 per cent of direct payments to agricultural practices that are beneficial for the climate and the environment. The expected benefits for climate mitigation were furthermore enhanced carbon content of the soil (EC 20; EC 24). The second pillar supports rural development through the European Agricultural Fund for Rural Development (EAFRD). A key objective of the second pillar on rural development was the sustainable management of natural resources and climate action. This was to be achieved by supporting the shift towards a low carbon and climate resilient economy in agriculture (EC 2011c; European Council 2013). 25 per cent of the total contribution from the EAFRD was to be devoted to the rural development programmes on climate mitigation, adaptation and land management (European Council 2013). These steps in themselves could be regarded both as climate and environmental policy integration according to criteria set forth in the literature (Lafferty and Hovden 2003; Jordan and Lenschow 2010; Rietig 2013). They contribute to reducing emissions by increasing carbon sinks (e.g. through set-aside of land), adapting to negative climate impacts and also to reducing negative environmental impacts of agriculture. The actual environmental and climate mitigation ambition of the Commission's proposal (EC 2011b; EC 2011c) and the policy outcome (European Council 2013) were criticised by environmental NGOs as too low, focussing on small political compromises:

> Everybody agrees with greening because they need to justify the money that is behind it but the problem is that, if you really go to, okay, and now we are talking serious, not big politics anymore, it's very difficult for them to really make it change. (…) The environment is very attractive to put a big green label on.
>
> (ENGO 2)

Following Nedergaard (2008), there were three interest groups influencing the policy outcome of the CAP. Environmental NGOs can be regarded as members of a coalition calling for ambitious and far-reaching CAP reforms. Lobbyists from the agri-industry confirmed that their influence decreased in the 1990s and 2000s (Industry 4; Industry 5) while environmental NGOs became a counter-balance to the agri-industry's 'status quo' coalition, which retained close links to several agriculture

ministries in the member states (Nedergaard 2008). The environmental NGOs themselves however also pointed towards intrinsically motivated processes within the European Commission that were not necessarily linked to their lobbying activities but rather coincided with them and served as convenient argument for the European Commission to justify its reform course (ENGO 9):

> What was quite obvious is that the influence of the agricultural lobby, the German and the European, decreased recently, at least on the Commission and the proposals that came from the Commission. The influence of the agricultural lobby on Germany is still immensely high, but Germany is only one player. The German Minister for Agriculture, Mrs Aigner, essentially represents the position of the agricultural lobby in Brussels.

> (NMS 4)

Thus, the European Commission was the third key actor whose interests could be best described as 'moderate reform' coalition (Nedergaard 2008) with the ability to steer the reform process. When compared with the two previous major reforms in 1992 (MacSharry Reform) and the 2003 Fischler Reform (Feindt 2010; Nedergaard 2008; Swinnen 2008b), this 2013 reform could be understood as a continuation in the shift towards a 'public-goods model', which is especially emphasised by the European Commission (EC 21; EC 22; EC 23; EC 25; EC 26). Different actors questioned whether European agricultural policy should at all be organised through a system of subsidies and public monetary transfers (Nedergaard 2008). Especially finance ministers in the member states, different environmental NGOs, social NGOs involved in developing countries and major trade partners voiced their demands to 'scrap the CAP' more or less forcefully since the 1980s (Moehler 2008; Pirzio-Biroli 2008: 104; EC 21; EC 24; ENGO 3; ENGO 5). The rationale behind the unacceptability of the impact and price support model was the argument of *'public money for public goods'* requiring a strong justification why the public should subsidise a policy with negative environmental impacts that only seems to benefit a few:

> Why waste public money when people don't do what they are supposed to do. I mean just cut them off when they don't, why should we waste good public money that is so scarce to subsidise one sector out of many sectors, and at the same time they are undermining all the environmental values.

> (EC 14)

Key actors in the environmental NGO community also communicated the danger of a discontinuation of the CAP to increase the pressure on policy-makers:

> I've said now on a few occasions in conferences and in the media, I said "This was your last chance. You won't get another chance. You won't get 363 billion again. Because you blew it. You went for the whole thing." I don't know if that's true or not but it's kind of useful to say, which is that you should have given more on the greening side if you wanted a more secure vote in 2020. (…) It reinforces the public money for public goods, it reinforces the Pillar II. It says that the public money will be so scarce.

> (ENGO 9)

While the motivations and associated worldviews behind this demand were very different and ranged from market-liberalisation and open competition to environmental considerations in favour of the polluter-pays principle, governmental actors saw this coalition's coherent demand as having had an impact on public opinion (Nedergaard 2008; Swinnen 2008b):

> What is clear from opinion polls (…) throughout Europe is that citizens want a more diverse landscape, that agricultural policy should not only pay subsidies but link these to public services. In this aspect citizens became more sensitive, on the issue that they are paying for something with taxes, the farmers can have this support but we can expect a little in return. (…) I think the public became a little more political.

> (NMS 4)

The coalition in favour of abandoning the CAP and introducing a new, more market-based form of agricultural policy became strong enough to convince top decision-makers that the only way to 'save the CAP' would be to justify its existence by changing its objectives towards a public-goods model. This was achieved by trying "to change the image of the European agricultural sector as a major polluter jeopardising long-term sustainability, into that of a conservationist emphasising quality, health and sustainability" (Pirzio-Biroli 2008: 103). The main instrument of choice was decoupling farm payments from production and conditionality of the subsidy payments upon cross-compliance with environmental regulations:

Decoupling was driven by a number of different concerns, I mean; it is an idea which time had come. (…) In terms of the cross-compliance, this was once again something that was called for by environmental groups, but at the same time, it fitted into this idea that policies should be more in support of environmental expectations.

(EC 25)

The environmental NGOs' emphasis of the need to link public money to the provision of public goods also supported this perception among European policy-makers:

We did hammer that 'public money for public good' very strongly, not only in the CAP but in the whole MMF which is the context (…) and that's been going on now for some time.

(ENGO 9)

Corrado Pirzio-Biroli, the European Commissioner for Agriculture's Head of Cabinet and key architect of the Agenda 2000 and the 2003 Fischler reforms, pointed out the following changes in European public opinion and thus in the socio-political landscape as major drivers for pushing the CAP reform forward to increase popularity and avoid budget cuts:

a) farmers had become a tiny minority, and farm organisations lost dynamism and clout;
b) the widening of the EU and the proliferation of its policies against growing EU budget stringency had increased the competition for funds within both the Commission and the Council, as well as within the European Parliament;
c) the image of the farmer, large and small, had become that of a polluter, although this was not directly because of the CAP, but because of the industrialisation of agriculture, which the CAP had entertained; and
d) the CAP no longer had the votes to continue the status quo.

(Pirzio-Biroli 2008: 102)

Thus, the motivation to introduce greening objectives into the CAP can be seen both from an environmental perspective and as a tactical move in response to or at least in anticipation of perceived changes in public opinion to further tolerate its continued existence. A representative of the agricultural industry concluded on the motives for introducing environmental objectives that these resulted

more out of necessity than design. (…) The Fischler Reform in 2003 again was out of necessity to ensure that if you had a decoupled payment, it would have to be attached to something which meant that this concept of cross-compliance was introduced (…), that opened really the door for a wide discussion about the role of the CAP into the great environmental benefits and of course you've got a very vocal environmental lobby led by Bird Life International in particular, but WWF Friends of the Earth and other organisations who were all trying to ensure that more public money is spent on environmental causes and the CAP is a big source of public money at European levels. (…) Frankly it's not going to go away either and (…) our hope is that we can ensure that it's delivered in a way that doesn't compromise the competitiveness of farming businesses.

(Industry 7)

This section illustrated how moderate greening measures that were introduced gradually in Europe's largest subsidy programme addressed several political interests of the actors involved. For the European Commission, the observed change in public opinion provided a rationale for greening as a means to justify the continued existence of the CAP. The agricultural industry also recognised this necessity to some extent, but was trying to minimise the economic impacts by calling for flexibility and voluntary measures, which was most successful via lobbying on the member state level. The environmental NGOs were strengthened by the shift towards environmental measures and began forming a counter-balance to the agricultural lobby.

7.1.3 Conclusion on changes in the socio-political landscape

Policy change in the CAP was a result of shifts in the socio-political landscape throughout the 1990s and early 2000s. Environmental NGOs emerged as counter-balance to the agri-industry. The food scares of the 1990s and subsequent shifts in public opinion were articulated via the media, which in turn influenced how politicians and high-level civil servants perceived public acceptance of the CAP. This opened windows of opportunity (as discussed by Kingdon 1995) for policy-makers to reflect on the CAP and reconsider the most criticised elements, both in terms of detailed policy instruments and also the wider goals and objectives of the policy. As discussed in chapter 3, such changes in the socio-political landscape can be drivers for policy change. The wider public (i.e. voters), politicians, civil society and representatives of

interest groups influenced the key actors. The media was a key intermediary between civil society and politicians as it conveyed messages that were frequently framed by interest groups. These influenced wider society in its process of forming medium and long-term preferences that could also have been carried into political elections. Politicians were both recipients and actors as they could steer public opinion with messages, but at the same time also paid close attention to public opinion as a matter of political survival with an eye on the next election (EC 21; EC 24). The CAP however is a fairly complex policy not featuring high in public opinion and drawing limited attention from the media. This limits the discussion to smaller circles:

> Clearly when the politicians feel the heat from public opinion, then they take action. The big problem (…) [is that] the CAP is constructed in such an obscure and complex way, is that there is very little public debate about it.

> (ENGO 3)

This was also pointed out by a member state representative:

> Most citizens don't have a clue, sorry, what is going on in Brussels and what agricultural policy is; there is only a very small percentage in the population [who knows and cares].

> (NMS 4)

Nevertheless, the food scares of the 1990s such as BSE resulted in increasing interest of environmental NGOs, consumers and wider society in European agriculture. This group represents "the other 99 per cent" (EC 21) of stakeholders as agriculture has profound impacts on human health via food safety and environmental conditions. The policy outcome was a continuous adjustment of the CAP and a gradual shift towards the public-goods model over a period of 30 years. This was both driven and supported by the changing public opinion on the CAP, that prompted policy-makers to agree to adjustments in order to preserve the CAP overall. Especially environmental NGOs were interpreted by key policy-makers in the European Commission and the European Parliament as representatives of public opinion that could not be ignored in policymaking. A key actor in the Fischler Reform concluded on the rationale behind introducing greening aspects:

So I think you have this shift in public opinion, the shift in the positions of NGOs
and as well the role of the academic debate, you see concepts coming into play in a
way which I think is much more talking to the agricultural debate on greening.

(EC 25)

The next section closely examines what aspects of learning occurred on the individual and organisational level and to what extent they mattered for the policy outcome. It finds that the reform heritage provided a strong incentive to 'move on' and illustrates how the link between learning on the individual and the organisational level influences the policy outcome. Policy entrepreneurs in key positions played a central role in all successful reforms. However, while their influence on the policy outcome was very high, their careful orchestration and strategising did not always result in spillovers to facilitate learning among the actors involved.

7.2 Learning on the Individual Level

The shifts in the socio-political landscape over the past 30 years resulted in a continuous reform process and opportunities for individuals in the European Commission and the wider European policymaking community to justify greening. These changes however can rather be regarded as a driver for learning and not as learning itself. As outlined in chapters 2 and 3, factual learning among decision-makers occurs when individuals reflect on an input such as new information and as a result their expertise increases. Experiential learning occurs when an individual reflects on being involved in a policy field and thus accumulates working experience (Argyris and Schön 1978; Kim 1993) or learns how to manoeuvre the political process to influence policymaking (i.e. 'political learning', see May 1992). The most obvious learning on the individual level is experiential learning among those involved in policymaking. It occurs as soon as policy-makers reflect on their experience and learn by doing. This section examines to what extent individuals learned in the CAP reform processes. It analyses learning while taking into account previous expertise and separating learning from al-

ternative explanations for policy change such as bargaining and the dominance of po-litical and economic interests. The time dimension is crucial in determining learning along the policy making process (see chapter 3). This chapter 'measures' learning as a change in knowledge, experience and/ or beliefs at the time of the policy outcome compared to when the actor became involved with the policy, but does not consider previously existing and unchanged knowledge, experience and/ or beliefs as learning.

7.2.1 Learning and the role of previous knowledge

Learning on the individual level depends strongly on the pre-existing knowledge of the involved individuals. The learning curve is very steep if the individual had only limited involvement with the policy field and takes in much new information within a short period of time.

Members of the European Parliament

The co-decision procedure for the CAP introduced by the Lisbon Treaty (Craig 2010; Roederer-Rynning and Schimmelfenning 2012) broadens the factual and experiential learning to the Members of the European Parliament (MEPs). These were confronted with new information and more closely deliberated the post-2013 CAP reform as they did previously when the member state's ministers in the Agriculture Council decided the CAP. Therefore, there was a considerable amount of factual and experiential learning among Members of the European Parliament (EP 1; EP 2; EP 3; EP 5; EP 6; EP 7; EP 8). At the same time, the learning of individual MEPs also depended on their previous expertise in agricultural policy, which was heterogeneous throughout the Agricultural Committee:

> Some of the MEPs in Comm Agri, they have a wealth of experience and expertise and other people – agriculture might only be their second or third committee and it's very much of minority interest and you can tell from the sort of fairly superficial level of their questions and interventions that [their expertise is on a] rudimentary level, so we have a very great range [of expertise].

<div align="right">(EP 10)</div>

They are presented with a large number of studies, position papers and requests to take the positions of interest groups into account. MEPs across different parties and from different member states pointed out that they listened to the input provided by the different interest groups and then reflected on what input best mirrored their political objectives and their electorate's preferences (EP 1; EP 2; EP 4; EP 5). Thus, they filtered information based on its perceived usefulness with pre-existing political objectives (EP 2; EP 3).

Experiential learning was stronger in the European Parliament than factual learning. The key reasons were time and resource constraints to closely engage with the studies and reports due to very full working schedules and individual MEPs' involvement with many different issue areas (EP 6; EP 7; EP 8). They reported that they lacked the time to sufficiently reflect on detailed factual knowledge and thus tended to prefer personal conversations with experts and representatives of interest groups to ask them about the key facts they needed to know:

> I have to be clear on that; a politician is only as good as his team. I am absolutely convinced of that. When I have 10, 14 appointments per day, (…) then I can't sit in the office and read [scientific studies] for hours. I simply can't. Okay, I can read a few things during meetings (…), but I am also limited and need my 6 hours of sleep. (…) I have to rely on my assistants to analyse the flood of knowledge, but even that is not possible. I prefer to talk to scientists rather than reading their studies.

<div align="right">(EP 2)</div>

Engaging with stakeholders, lobbyists and experts was a key method for MEPs to understand their preferences, gain factual knowledge and form their own position:

> They form their position listening what other people think and I mean (…), they need to listen what their party says, they need to listen to what the national people say, so they have to follow the government, if they are in government or they have to follow the position.

<div align="right">(ENGO 2)</div>

Here the previous expertise and the quality of the advisors played a key role as MEPs frequently relied on their previous knowledge and the policy briefs they received from their advisors (EP 1; EP 2; EP 5; EP 10). These however were frequently in weak positions to provide substantial technical advice as they were predominantly preoccupied with administrative and organisational issues:

> It's difficult for them. It's very difficult. [Advisors] only [gain expertise] if they really have a file that's their job to work on. Of course you have certain people, certain of the chairs they have advisers that work specifically on certain things then they have more capacity. But your average MEP assistant will have difficulties to follow things in depth, which is understandable, I mean I wouldn't want to go to their inbox everyday, they probably get like 200 or 300 emails that they have to deal with and they organise events (…). A lot of them have to deal with all the logistics (…). [They don't have a] specific secretary for that.

<div align="right">(ENGO 2)</div>

While advisors to MEPs frequently struggled to deeply engage in issues given their administrative duties, the advisors of the parliamentary groups had more scope to gain expertise and participate in the debate as knowledgeable advisors:

> I think it would be a fair generalisation to say the MEPs assistants they tend to be the youngest and the generalists. Then there is quite a large degree of influence and within the political groups resting on the shoulders of the political group advisers and they do have that background and specialisation and they are able to help the thinking and evolution of the policy positions amongst the political groups.

<div align="right">(EP 10)</div>

This time pressure thus hindered the development of in-depth expert knowledge while being involved with the CAP negotiations; however experiential learning did occur because the meetings with stakeholders, interest groups and discussions among MEPs in their political groups took up a considerable time and MEPs learned by being involved in the policymaking process. The set-up of the European Parliament thus en-

couraged MEPs to specialise in an area where they can draw on previous expertise based on their education or professional work experience (EP 2; EP 3; EP 4; EP 5). The level of previous expertise also influenced how easily an MEP changed policy design beliefs based on factual input. If an MEP knew little about the details of a policy proposal such as the CAP reform, s/he could be convinced by lobbyists more easily as this environmental lobbyist points out:

> Most of the time, you just convince people who don't know about an issue fully, which is part of the thing and then they will go check it of course and maybe they don't agree.

> (ENGO 2)

It is also important to acknowledge that only a few individuals, the Rapporteur and the Shadow Rapporteur, were closely involved in the decision-making, drafting of legislation and chairing of the committee meetings and negotiations with the European Commission and the Council. These individuals were already experts in the policy-area as expertise and personal affinity is a key self-selection criterion for engaging in certain committees and volunteering/ being proposed to serve as rapporteur (EP 4; EP 5; EP 10). A long-time observer of policy process concluded that

> the standard of the debate in the Parliament is very poor (…). They [the MEPs] are not really engaged, it's more like grand gestures, just irritating, some what they are discussing is more like a 1990's version of farmer's interests. (…) The lack of knowledge is a huge problem in the Parliament. They don't understand the policy, it's interests and politics. And we write reports to the secretariat (…) and when you go to a public hearing, there a few of them, not a lot, including the chairman, that are very informed, but a lot of them just listen to their lobbyists. At the end of the day, it's boring studying policies, there thousands of studies, tedious regulations and details, it's hard work frankly. So they are not really motivated, you know, and because they never really had to do it in the past. So they are not really on top of it.

> (ENGO 5)

Therefore, experiential and factual learning did occur among MEPs, but it was also to be expected as a normal part of the policymaking process. These findings confirm other learning theories introduced in chapter 2 such as Argyris' (1976) single loop learning, political learning and governance learning as basic forms of experiential and factual learning (e.g. Radaelli 2009; Schout 2009). These learning types how-

ever portray learning as a collective process, whereby the empirical findings strongly point towards the key role of individuals in powerful coordination positions such as the rapporteurs, who due to their high expertise had a less steep learning curve. As the European Parliament was involved in the co-decision process for the CAP for the first time (Roederer-Rynning and Schimmelfenning 2012), it remains too early to determine what changes in beliefs occurred among the MEPs as this process takes about a decade (Sabatier 1988). Belief changes are most likely to emerge between 2014 and 2019, when individuals reflect on their involvement before the next CAP budget will be negotiated from 2018 onwards and if they remain in the European Parliament depending on the next election's outcome.

This limited capacity for factual learning on the individual level due to a lack of resources and overwhelming time pressure became also a relevant hindering factor for the European Parliament's overall effective participation in the trilogues as a member of the European Commission concluded after the negotiations:

> It was a problem of the proposals from the very beginning that they tackled too many things at once. (…) Especially the Parliament was kind of overwhelmed. They did not have enough staff. They always felt unfairly treated when the Commission appeared with 20 people and the Council appeared with 20 people and they were sitting there with one rapporteur with one or two assistants and five shadows (…) so they were complaining about this lack of in depth knowledge and discussions about these things.

(EC 19)

The deeper beliefs of individuals also matter, particularly as baseline to determine whether constructivist learning occurred, i.e. whether these deeper beliefs changed. As opposed to Sabatier's (1988) deep beliefs that are regarded as virtually impossible to change, deeper beliefs are slightly weaker and are related to individual's green beliefs, for example whether they think it is important to protect the environment and address climate change (see chapter 3). These deeper beliefs were frequently formed early on, but they do not necessarily determine the professional pathway into a green political party or environmental ministry. Individuals can hold deeper beliefs in favour of climate policy integration while working in environmentally unrelated areas such as this non-Green MEP in the agriculture committee of the European Parliament:

I have always been someone who is particularly mindful of the environment. I come from the anti-nuclear movement (…) and was leading every demonstration. (…) No, I did not change in this regard; I was already actively supporting the environmental cause as a young person.

(EP 2)

Learning among key actors in the European Commission

In the European Commission factual and constructivist learning remained incremental. Civil servants both in the Directorate General for Agriculture and Rural Development as well as in the European Commissioner's cabinet had a very high expertise in their field and usually more than ten years of experience working on CAP reforms. Especially the policy-sub field of agricultural policy and the CAP in particular has been a domain of specialisation that encouraged a close-knit network of experts. Almost all individuals involved in the close decision-making circles studied agricultural economics or agronomy and frequently held PhDs and postdoc qualifications in agricultural economics or related fields. Furthermore, several of them were farmers themselves or grew up on farms. They were therefore also familiar with the 'situation on the ground', at least in their home countries (e.g. EC 20; EC 21; EC 22; EC 24; EC 25). Thus, they closely and critically reflected on new input they were presented with by external experts, stakeholders and interest groups from a peer-reviewer perspective and also constantly asked how the information was relevant to their immediate task of CAP reform (this was pointed out by EC 14; EC 16; EC 21; EC 23; EC 24; EC 25).

For policy proposals to succeed through the different stages of the 'hierarchy', individual policy-makers needed to convince their colleagues at the European Commission of the proposals' economic soundness and political feasibility, whereby their personal reputation was also on the line:

> If it is scientifically sound, also in terms of experience, [individuals can push policy proposals to the higher levels of the European Commission hierarchy]. But if you realise a proposal is not received well, in terms of expertise or politically, then you won't let the colleague make the proposal alone or you motivate the colleague that he checks with the other [units or DGs]. (…) This is a learning process. If your proposal is received well, then you know you have the right message. (…) There are constant checks and balances.

<div align="right">(EC 22)</div>

They emphasise their constant reflection on their own working experience and the input they received from experts inside as well as outside the Commission:

> I critically examine new input; I try to include the new input from my daily work into discussions, as well as to test ideas and their validity. In these discussions many new thoughts and aspects emerge. This is essentially a combination of new insights, new links, especially in empirical work, plus a consolidation and reconstruction of experience and expertise. This needs to be re-developed within new framework conditions of fact-based parameters.

<div align="right">(EC 21)</div>

This individual reflection process also widened towards reflection and knowledge gains on the intra-organisational level within the European Commission:

> Yes absolutely, [there were] permanently [reflection processes]. This is of course something that is not communicated to the outside. (…) [DG Agri] had a very intensive phase throughout the first six months. I can show you how many hundred thousands of pages have been exchanged [between the Commission and the Council presidency].

<div align="right">(EC 22)</div>

Reflection on the input primarily resulted in changed policy detail beliefs. Deeper beliefs and policy design beliefs were more difficult to change (see also analogies by Sabatier 1988; Weible, Sabatier, and McQueen 2009). Interviewees emphasised that it was important to continuously repeat the key message and to keep presenting evidence in order to convince individuals that were members of an opposing coalition (e.g. EC 15; EC 22; EC 23; EC 24; ENGO 3; EP 1; EP 2; EP 5; Industry 1; Industry 4; Industry 5). Several individuals changed their policy design beliefs, i.e.

about the overall direction of the CAP, when the dialogue with stakeholders widened their perspective to take into account aspects that were previously not part of their thinking and therefore decision-making (ENGO 3; EP 5). Environmental NGOs especially addressed this more emotional level when they facilitated policy-makers' experiential learning by trying to make policy-makers better understand the potential and real impacts:

> Part of it is emotional, moral issues. Picturing the things. One thing that makes a lot of difference with officials is if they see things, if you are able to take them to a countryside, or if you are able to talk to them about a place they know in their home country and you say 'think about that region, and that other region, this is because this has happened here and that has happened there'. Then sometimes it clicks and you get through. So there is a more rational knowledge part and there is a more if you want emotional identification thing because as long as something is a statistic it does not really talk to you, but if you in your summer house you spend the summer holidays and you know there is 'ah yes, there is always this beautiful grassland with lots of flowers, but now they have ploughed it up and the flowers are gone'. It often helps people to actually open up to the facts because the facts on their own don't really turn around people.

> (ENGO 3)

Factual and experiential learning also occurred when policy-makers were exposed to potential unintended consequences. Dialogues with stakeholders such as environmental NGOs and consumer groups equipped them with new perspectives that were outside their usual sources. This exposure to new aspects of policy that had not been a considerable factor in previous decision-making triggered learning via shifting policy design beliefs when individuals did not only reflect on the input, but as a consequence also changed these beliefs and adapted them to the new frame. Especially repeating the same message proved successful (EC 22; EC 24; EC 25; ENGO 5) to get individual policy-makers to change their fundamental position on the policy in the long-run and to take into account environmental considerations:

> You keep talking to people and slowly, slowly it sinks. Some people turn around and we have seen some officials in DG AGRI that over the years have come from not even knowing what the environment is to at least understanding that they have a role to play and caring about it, trying to make a difference. With other people you never get through.

> (ENGO 3)

In the CAP negotiations, individuals working for the Commission also engaged in experiential learning when they reflected on their experiences throughout the policymaking process and arrived at conclusions relevant for the next negotiation round:

> I would say we need to much more look into simplifying the complex scientific basics because just stating something like "Permanent grassland is good" (…) were taken apart by lobbyists and the people briefed, they couldn't counter specific arguments because they didn't have the background knowledge so the information then needs to be much more relayed, transferred, explained. The Parliament [was] (…) lacking a lot of technical explanations so that's where we tried to come in.
>
> (EC 19)

Especially individuals holding deeper beliefs that were normatively aligned with their policy objectives, in this case climate policy integration, but did not belong to the respective interest group, had a strong influence on the policy outcome when they were also in positions that allowed them to steer the policymaking process in order to align the policy outcome with their deeper beliefs. This however does not indicate a change in beliefs and thereby constructivist learning. It rather points towards factual and experiential learning regarding strategies how to most effectively manipulate the policymaking process.

In consequence, how much individuals learned in the policymaking process depended on their existing knowledge, experience and beliefs. Overall, the learning curve of individuals at the European Commission was not as steep as the learning curve of the Members of the European Parliament that were first involved in the CAP reform, except for those individuals who were new to CAP negotiations. By continuously being involved in the CAP reform process over decades and by beginning to prepare the next CAP reform once the previous one had been decided, the civil servants at DG Agriculture and Rural Development did accumulate more experience in reforming the CAP, but they only added marginally to their already vast experience and especially expertise. Especially CAP reform towards a public-goods model is still a topic that remains the domain of a hand full of experts inside the European Commission's directorate General of Agriculture and Rural Development. By integrating climate considerations the circle of experts widened, however the key individuals in other directorate generals involved with CAP aspects moved from key positions within DG Agriculture to their current posts (e.g. EC 20; EC 22; EC 25). The three European

European Commissioners that were involved with the most 'radical' reform proposals in favour of strengthening environmental and climate aspects held strong corresponding deeper and policy design beliefs before their concrete involvement began:

> I think a lot had to do with Fischler himself and that's borne out by some of the roles that he's taken since leaving the commission. He's kept his hand in some of this rural development and agriculture work so he obviously personally has been committed.

> (ENGO 9)

This is also the case for Commissioner Ciolos in the 2014-2020 reform:

> That is clearly his personal conviction that this is necessary and needed for the European farm industry. It is his absolutely deep conviction. Yes, I think he probably always had this kind of conviction. It's just the reality. He is a great expert in agriculture, he is an agronomist, so he knows about agriculture as a professional, and I think he also sees the reality out there that some elements of our policy have led to situations, which are hardly explainable. And we spent a lot of money for problems that we are having, so we need the instrument of the CAP, which is a very powerful instrument because of the money, to change direction.

> (EC 24)

Thus, they did not change their beliefs during the drafting and negotiations of the proposal, but acted in line with their pre-existing beliefs as policy entrepreneurs to align the policy outcome with their own underlying beliefs. The activities of these key individuals at the centre of CAP reforms in the Agenda 2000, the Mid-Term Review of 2003 and the post-2013 greening of the CAP in line with the mainstreaming of climate action in the 2014-2020 EU budget will be examined more closely in section 7.3.

Learning among representatives of Member States

The civil servants and politicians negotiating on behalf of their member state via the Council working groups could be seen as similar experts to those in the European Commission with the limitation of national capacities and career structures. Some countries have a generalist civil service structure encouraging frequent rotations be-

tween policy fields and making the development of a specialist culture difficult. The majority of the interviewed negotiators however had a similar track record of involvement with agriculture policy like the civil servants at the European Commission. The key difference was the member state representatives' specific expertise on the particularities of their home countries' agricultural sector and their understanding of the likely positive or negative economic impacts of the European Commission's proposals. On the other hand, their knowledge on other countries' agricultural sectors tended to be limited. Thus, much learning among member state representatives in the Council was factual learning regarding the agricultural sectors in other countries:

> So I think some of the arguments from those member states did influence our opinion because you get to learn a bit more about exactly how different types of agriculture work in other member states and therefore can see how some of the provisions might impact them in a way we wouldn't have instinctively known about because we don't really understand how agriculture in those member states works. So it certainly was a bit of learning to that extent.

(NMS 10)

As with industry lobbyists, the representatives of member states had to continue to represent their countries' position in the negotiation regardless whether their personal underlying beliefs were aligned with their countries' position or not. Thus, it is not possible to determine whether individual beliefs changed among the negotiators.

7.2.2 Separating learning from the negotiation position

It is important to differentiate between changes in underlying beliefs and changes in official negotiation positions as one points towards learning and the other towards alternative explanations for policy change. These two aspects can be easily confused when changes in negotiation positions or any involvement of coalitions in the policy process are regarded as learning. There is a danger that analyses fail to acknowledge that learning can occur although there has not been a detectable change in negotiation positions or that negotiation positions can change without any learning but due to alternative explanations. An individual can reflect on a new input, gain new knowledge

and experience and even change underlying beliefs. Whether this is transmitted to a change in the negotiation position, i.e. the position of the organisation that the individual represents, depends on many different political factors that are at least partly beyond the individual's control:

> It's very difficult for one person in a realm like mine [to change positions, but] you can feed back [to your home country] on these sorts of things and send back reports and point to people (…). It could be someone from another member state doing the same thing, sending it back to their capital saying, 'This is interesting. Does this mean that we might change our position on this?' You're likely to hit some sort of machine, which, if it doesn't agree with what you say, then your idea's not going to get very far. I think there are probably influential people who you can target and if you persuade them, you're more likely to be persuasive overall.

> (NMS 9)

Therefore, individual learning can occur without changes in the negotiation position, as this requires a multitude of beneficial circumstances including active policy entrepreneurs who successfully use windows of opportunity to convince others that it is in the organisation's interest, i.e. in line with its existing beliefs, to adapt their official negotiation position without negative political consequences in the short term:

> But it was with regard to sustainability, because ministers tend to have a short-term view related to the likely duration of their office and therefore seek to minimise difficulties for their constituencies in order to enhance their staying power and hand over the hottest potatoes to their successors.

> (Pirzio-Biroli 2008: 102)

Defensive avoidance (Janis and Mann 1977) is the second factor besides political interests that explains why individuals and subsequently their organisations frequently cannot change their negotiation position, although they may have learned. This occurred not only in the Fischler reform, but is also an issue in the negotiations for the post-2013 CAP with its proposal for dedicating 30 per cent of the direct payments under pillar one to greening measures (EC 2011b). Defensive avoidance was defined in chapter 3 as alternative explanation to learning as ignoring evidence that is not in line with an individual's deeper beliefs and has implications for adapting the policy design or policy detail beliefs. This is especially the case with representatives of the 'status quo' interest group representing the agricultural industries' interests and

seeks to preserve the CAP in its traditional form with as little conditionality of payments upon greening and bureaucracy as possible. Particularly the lobbyists of the agricultural interest groups and representatives of several member states emphasised the importance of the CAP as instrument of income support to the farmers, food security and affordable food prices for the consumers.

It is important to recognise that these individuals had to represent their employer's position, regardless of their personal point of view. Thus, it was not possible to determine whether their personal opinion and beliefs regarding greening changed and therefore whether individuals engaged in constructivist learning as this may have been covered up by loyalty with their employer's interests that prevent changes in the negotiation position:

> Because people believe or do not care about the evidence depending on their mindset and you see it with… I mean the people whose job is based on not understanding the evidence will never understand it. You see it with the farm lobby and various decision-makers that are controlled by the farm lobby. There is no amount of scientific evidence that you could ever present, it will not make any difference. Because, you know, if you are paid by people whose interest it is to do 'A', you can get all the published literature in the world showing that 'A' is bad, they will just keep saying that 'no, it's good'. Or try to find their own evidence or twist the interpretation in order to say 'but yes, that is only because you are looking at the bigger scheme…'. Yes, there are many ways to justify the unjustifiable.

> (ENGO 3)

This was also emphasised by civil servants negotiating on behalf of the European Commission with the European institutions and on behalf of the EU in international negotiations:

> As negotiator you address this issue [of agreeing with your organisation's position] from an absolutely neutral perspective by trying to get the proposal adopted with as little changes as possible. Where the proposal of the Commission is met with resistance you need to identify why and look for alternative solutions.

> (EC 23)

Another aspect was how negotiators interpreted scientific input based on their specific interests. This indicates a political use of scientific knowledge (Rietig forthcoming 2014 a):

> You are not arguing on the same grounds because people are picking their arguments very carefully and so the farmers will come with the study on something like the effects of the ecological focus area and we will come with the effects of the ecological focus area but it's not like we really discuss on the same basis because they interpret in one way, we interpret it in another way and then the Commission probably interprets in a third way, so. So there is (…) a lot of scientific data.
>
> (ENGO 2)

Over the past 30 years, the farmer associations strongly defended the status-quo of production-based support in the CAP and were displaying a "massive opposition to reform" (Pirzio-Biroli 2008: 102). They formed their own coalition (Nedergaard 2008) that was based on a "strong survival instinct of national ministers for agriculture and (…) scepticism in Mediterranean countries" (Pirzio-Biroli 2008: 102). Farmer associations tried to keep their policy design and policy detail beliefs aligned with their deeper belief of the necessity to protect European agriculture from international competition and to focus primarily on food security and agriculture as an industry already faced with tough conditions (EP 3; Industry 1; Industry 5) and too much regulation, so that the additional 'green tape' of cross-compliance with environmental measures in the first pillar would cripple their competitiveness (EP 5). This position has hardly changed over three decades:

> In the Agriculture Committee of the Parliament, I see that a lot of my colleagues really are just saying what the agricultural lobby has said. (…) There is a kind of emotional drive for a lot of my colleagues to really support the farmers. That makes discussions far more political because the Commission's arguments are not listened to. (…) And all the scientific knowledge that is out there and clearly showing that agriculture has a negative impact on environment, it's just ignored.
>
> (EP 5)

However, a change can be identified in the rhetoric used by representatives of farm associations such as Copa-Cogeca, the largest farming association that predominantly represents the interests of intensive farming and industrial production (ENGO 3; Industry 4; Industry 5). Given the overall consensus of policy-makers that in order to save the CAP it needs to be reformed to reflect a public-goods model, also the 'status-quo coalition' needed to move and acknowledge the overall societal consensus.

The head of the Agriculture Cabinet at the European Commission pointed out that a few years after the Fischler reform

> the farm organisations in Europe today admit that the Fischler reforms saved the CAP for the time being, and recognise that if Fischler had given in to Chirac's request to postpone reforms until after the WTO round, this could have meant the end of the CAP as we know it. Without reforms, not only would the EU have lacked a solid, credible base in order to actively participate in the Doha development round talks, but also the Brussels European Council agreement of 2002 would not have held up against the pressures of the 'one per centers' in connection with the 2007–13 financial perspectives.
>
> (Pirzio-Biroli 2008: 108)

It also recognised that its influence diminished due to the counter-balance provided by the environmental NGOs:

> I think it's been a gradual process quite honestly. I mean [the Environmental NGOs have] (…) been there for a quite a long time and he's always been quite vocal, but obviously the environment issue generally has taken more precedence in all debates, has grown in that way, so I think the power of the environment is all there. Their influence has increased quite dramatically I would say.
>
> (Industry 5)

Thus, the overall political negotiation position of the farm lobby has changed to accommodate the socio-political consensus for a public-goods model of the CAP, but they maintained their original position within that new policy framework. They still tried to minimise the 'regulatory burden' for farmers in the form of environmental and climate measures (EP 3; EP 8; EP 10; Industry 4; Industry 5) but recognised that they needed to change their 'rhetoric' towards a 'green growth' argument to remain relevant in the changed policymaking climate attaching a high importance to public goods and greening (Industry 5). A key strategy was not trying to change member state's positions, but to reframe the language to allow sufficient flexibility to interpret the negotiation outcome in a way favourable to the agricultural industry:

The best way of approaching (…) [member states] is actually to adopt the wording the opposition is using in a way that can be accommodated. I mean a good example is on something like coupled support payments where we fundamentally would oppose the coupled support payments, whereas a lot of the member states really like them, they want to keep them and I think by process of negotiation you arrive at the recognition that to some extent some flexibility is allowed, but with in the language you try to promote the positives around a *decoupled* support system as well and ultimately you accommodate both our interest and their interest. It's not quite negotiation because you know, actually trading concessions of each other, you just actually adapt to the language in a way that can accommodate different interests.

(Industry 7)

Yet there was no evidence pointing towards a change in the agriculture industries' beliefs. This was supported by the thousands of amendments that were introduced by Members of the European Parliament, mostly from the Agriculture Committee that carried the handwriting of the farmers associations either directly or in modified form (ENGO 1; ENGO 2; ENGO 3; EP 2; EP 5).

In consequence, farmer's associations and member states in the 'status quo' coalition only adapted their political negotiation position to the overall framing of agriculture brought about by shifts in the socio-political landscape, but it was not possible to determine whether they engaged in constructivist learning as they had to represent their employer's official position. It can be concluded however that none of the individual learning experiences was sufficiently strong to enable or motivate individuals to diverge from their employer's position in the research interviews or to report on their attempt to change their employer's official position. Therefore, it remains difficult to separate individual and organisational learning in the case of the 'status quo' coalition. An additional reason is that the individuals representing lobbying groups or member states lacked the political power within their own organisations to bring about a detectable change in the organisations' official negotiation position.

Any changes that occurred in the rhetoric of farm organisations served to protect the unchanged deeper beliefs of maintaining the status quo and related political objectives. Their primary motivation was to remain "at the negotiation table" (Industry 5) and not drift into opposition that would have been marginalised in the negotiations.

I think the fact that people are more concerned about the environment and there-fore, if you take a view where you don't care about it or you give the impression you don't care about the environment, then you're going to be out of the debate.

<div align="right">(Industry 5)</div>

Within the new framing of the CAP as public goods model however they main-tained their deeper and policy design beliefs. Even the policy detail beliefs regarding technicalities such as instrument design did not change as they were still trying to maintain the status quo as far as possible and even to reverse previous greening achievements such as the 10 per cent set-aside for ecological focus areas, which was eliminated during the 2008 Health Check and was re-introduced in the post-2013 pro-posal as 7 per cent set-aside area (ENGO 3; ENGO 9; EP 3; EP 8). An observer con-cluded on the 'public money for public goods' debate and the inclusion of climate change objectives into the debate that it was being instrumentalised both by the Euro-pean Commission and the Agricultural Committee of the European Parliament to jus-tify their wider objectives:

> The Commission uses the rhetoric [on greening and climate change] to justify the budgetary demands on an ambitious CAP budget for the future, you will hear that sort of range of arguments played into the Comm Agri debate [i.e. the Agricultural Committee in the Parliament]. As a way of justifying an ambitious budget, that's mostly what you tend to offer. It doesn't tend to delve much deeper in terms of the sort of scale need for which Environmental Committee that goes for, [which is] really related to failure to achieve the environmental targets.

<div align="right">(EP 10)</div>

Overall, however, there were indications that particularly DG Agriculture and a high number of individuals within DG Agriculture changed their overall perspective on greening based on an increased exposure to debates on greening measures:

> DG Agri, when I started, they were totally in favour of farm interests and not green at all, now it's a more mixed picture, and some see it as a way to protect their budget. Quite a lot of them are seeing it instrumentally. But some of them are also asking for more green arguments to support their positions. So yes, there is really a two-way trust relationship. It's about trust; this is where relationships are incredibly important, if you don't trust that person, you don't share that information.

<div align="right">(ENGO 5)</div>

7.3 Learning on the Organisational level

Individuals did learn while being involved in reforming the CAP, whereby their learning was predominantly experiential and factual. Beliefs changed over longer time periods together with the shifts in the socio-political landscape, but these belief changes towards greening can also be understood as strategic response to maintain the CAP. The following section examines the organisational level, which is crucial for learning to be reflected in the policy outcome, and the links between learning on the individual and on the organisational level.

7.3.1 Links between learning on the individual and organisational level

As outlined in chapter 3, the key forum for learning to be transmitted from the individual level to the organisational level are committee meetings and other opportunities for exchanging views, forming common positions and attempts to convince the other side of one's proposal. In the CAP reforms, there are several areas where learning on the organisational level occurred. It included forming a common point of view among individuals working within one unit or directorate within DG Agriculture or between the Cabinet of the European Commissioner for Agriculture and Rural Development and his Directorate General as well as between different Directorate Generals of the European Commission. It furthermore refers to changes in knowledge, experience and beliefs resulting from the interaction between representatives of the European Commission and the European Parliament and Council as well as non-governmental stakeholder groups such as the environmental NGOs or the agricultural lobbying organisations. The organisational learning literature focuses on factual and especially experiential learning that can be transferred from the individual to the organisation (e.g. Kim 1993; March and Olsen 1975) and even result in changed goals when the previous goal is judged to be inadequate upon reflection, what is referred to as double loop

learning (Argyris 1976; Argyris and Schön 1978). The third aspect presented in the section on learning levels (chapter 3) was constructivist learning on the organisational level, which would be evidenced by changes in the negotiation position of a governmental or non-governmental organisation as result of a change in beliefs, particularly normative beliefs related to an overall policy objective or the design of a specific policy instrument. The prerequisite is that the organisation reflected on new input, e.g. in the form of scientific studies such as the European Commission in standardised reflection processes:

> Those colleagues [of the European Commission] who are working on relevant aspects prepare and sometimes participate in the Council working groups. This is supported so that the Commission receives feedback [from the member states]. In the current phase this does not result in changes to the proposal, but it results in a constant reflection process in which we reconsider whether the proposal is realistic, whether we have to talk to our hierarchy to adapt it and so on. This is a permanent reflection process, permanently. This is of course something that doesn't leak to the outside. But we had a very intensive reflection phase during the first six months. I can show you how many hundred thousand pages were exchanged.

(EC 22)

Both the European Commission and particularly the member states came to the conclusion during various CAP reform negotiation processes that it is in their interest to adapt their position in the light of the new evidence (see similar conclusion by Eising 2002):

> We observed regularly that those positions originally taken by the member states resulted in legal problems and explained to them why and how their position results in legal and administrative obstacles. This usually resulted in a change in the member states' negotiation position. Furthermore, when the Commission pointed towards practical difficulties in implementing the amendment, those who proposed it usually withdrew it subsequently.

(EC 23)

Such changes in negotiation positions among the member states in the Council were frequently a result of factual learning as opposed to constructivist learning when these gained new information and concluded that their core interests were better served by changing the negotiation position.

Learning in the trilogues between the European Parliament, the Council and the Commission remained predominantly factual and experiential. Constructivist learning, which would be evidenced by changes in negotiation positions based on reflection on arguments and key actor's accounts of changed beliefs due to convincing arguments, could not be detected on the organisational level. Particularly a change in the negotiation position could be evidence for factual, experiential or constructivist learning on the organisational level, depending on the reasons for this change. If the organisation reflected on other negotiation parties' arguments and came to change underlying beliefs, this shift in the negotiation position could be regarded as constructivist learning. If however the change in the negotiation position was a result of reflection on new information and an adjustment of the position to still achieve pre-set goals (i.e. correction of an error), it can be understood as factual learning. If the shift were based on the reflection on previous experience (e.g. with a policy in a member state), it would be experiential learning on the organisational level. Negotiators involved in the CAP emphasised the importance of trust and knowing each other facilitating a reflection on the arguments of the negotiation counterparts from other member states:

> We get to know them very well. (…) It can either make you think "oh they've actually got a point. I understand why they want that." I'm more likely to agree with them now. Sometimes it can work the other way and you can understand why (…) it's really important to them and think "well okay, that's fine, but I'm going to want something", but actually that doesn't make any difference [to us] (…) whether they get it or not. But if we're to agree with them, I'm going to want something in return. I think it's always, talking to other member states and to colleagues, you can learn a lot which will help in negotiations. Sometimes it can actually hinder them, but you have to be careful you don't say too much or make it seem (…) too important because sometimes I think it can potentially lead to other member states thinking "well if it's so important to them, I understand why, but I'm going to want something in return for agreeing to it." It can work both ways. Sometimes it helps a lot. Sometimes it leads to a bit of playing games.

> (NMS 10)

This kind of learning can be understood as factual learning on the organisational level, i.e. among member states, about each other's position. The individual negotiators used this knowledge to determine the other member state's negotiation margin on issues they might be able to agree on if the others made certain concessions. This strategising however falls into the category of 'political learning' described by Radaelli (2009) and May (1992) on how to use information and gain experience to

better manoeuvre through the negotiation process in order to achieve pre-set objectives. The learning described by the negotiator NMS 10 however was limited to gathering information about the other side's negotiation margin and thus falls into the category of factual learning. It is important to analytically distinguish between an adjustment in the negotiation position based on the realisation that the previous position was based on incomplete information, normal negotiation behaviour and a genuine change in beliefs, which goes beyond an interest-based rationalisation via the incorporation of new values in the area of deeper beliefs. A key example would be the forming of a consensus within DG Agriculture that it is important to consider climate objectives in the future reform rounds of the CAP. In the negotiations between the European Commission and the European Parliament and Council however constructivist learning remained rare and changes in negotiation positions could be rather understood as bargaining in negotiations based on pre-determined interests:

> Partly the Commission succeeds in convincing its negotiation partners why the Commission proposal makes sense. In other areas this was not successful. (…) [The reason is that] the member states or the Parliament simply did not understand the value added of the proposal, or if you want to interpret it this way, the Commission did not succeed in illustrating the value added. This is often the case in areas where there is existing legislation and it's more advantageous for member states to reject the Commission proposal and to maintain the status quo.

> (EC 23)

This was confirmed by other interviewees in the CAP negotiations:

> I think at the beginning of a negotiation like that on greening everybody's got very strong principles and everybody thinks 'No we need greening that is meaningful, that delivers real environmental benefit.' To be honest, towards the end of the negotiations, then people [member states] accept things they just would not have done 12 months ago. In the end, I think, all member states accepted things that other member states wanted, ultimately in return for getting the flexibility they needed. So there were some things that were agreed I think as part of greening that we would argue from an environmental point of view they don't make a huge amount of sense and I think early in the negotiations we fought quite hard against them. Ultimately, when it comes to the end, you prioritise what's important in your own member state and are more willing to accept things that other member states will do that you don't necessarily agree with. So positions change quite a lot over the course of negotiations. People do become a little bit more flexible the further on we got, as long as they get what they feel they need in their own member states.

> (NMS 10)

Changes in the negotiation positions within the trilog on the post-2013 CAP however could be linked to alternative explanations instead of learning and thus be regarded as part of the negotiation process. Particularly informal methods of arriving at an agreement relatively quickly could be mistaken as constructivist learning:

> Someone in the Commission writes a compromise proposal, which officially does not exist. The Council Presidency presents that text as proposal of the Council Presidency. Where it has been written is officially not known. (…) The presidency knows it, the advisors in the Parliament; this is an informal procedure in the trilogues. Then there is the trilog meeting in the parliament, where the Commission representatives arrive with their official negotiation mandate. The Commission representatives can change their position, but this requires approval by the College of Commissioners. (…) Informal negotiations to find a compromise position also strongly depend on the level of trust between the negotiators.

> (EC 23)

As in the drafting process, policy entrepreneurs also played an important role in the 2014-2020 negotiations. Particularly the set-up of the trilog negotiation that only included a very limited number of negotiators was conducive to knowledgeable policy entrepreneurs determined to achieve their objectives. Particularly the representative of the Council Presidency was seen as such an individual, especially due to his background as former Member of the European Parliament:

> He has a strong capacity to convince people. As a minister he tries to convince personally. He is very much personally involved in the negotiations. I noticed how he was with the fisheries, working until four o'clock in the morning, running around and discussing with colleague ministers. He is very much involved. He shows a deep involvement and that it is in combination with [his experience as] (…) a member of European Parliament (…). The Irish have a very good capacity to be very practical, to be very open, honest, and very pragmatic. They bring with them a culture of wheeling and dealing so I think they very much have the capacity to come up with a deal and what I said about [the lead negotiator] (…), he is I think the only minister in the Agricultural Council from the 27 member states who has a life experience in European Parliament and he knows the ways of how these guys operate. He knows them personally so that gives him in my view an extra capacity to work with them and to come up with a deal.

> (NMS 4)

Learning was not necessarily transferred from the individual level to the organisational level due to psychological hindering factors, particularly the fear of making mistakes. There were indications that this may have resulted in the tendency in some

cases to place following orders and bureaucratic path-dependencies over reflection on the feasibility of measures such as sacrificing animal welfare over compliance with identification requirements. This was exacerbated by the economic and Euro crisis:

> The Commission is very terrorised by [the fear of making mistakes]. And they are getting, they get of course auditors and they can have a better audit, they can't have an error rate beyond the certain percentage and all of these things are making them really afraid of doing something because they are in a financial crisis and Euro is going to fall up but also tells them probably everyday that if (…) something goes wrong, it's another reason to kill the European Union, you know, UK will go out and Greece will go out and they can't have it. So, they need to make sure that everything goes well, no bad press, no problems. But in all of that, they lose basically the creativity and the possibility for them to make a real difference.
>
> (ENGO 2)

In conclusion, reflection did occur on the organisational level, which is crucial for the progress of the negotiations between the policymaking organisations and the policy outcome. However, factual and experiential learning remained dominant in the CAP negotiations, whereby it could also be mistaken for constructivist learning if the reasons for changing (negotiation) positions are not explored sufficiently:

> I think people involved in the negotiations [from the Commission side] generally learn from each other. They do reflect, they go to the meetings, we certainly learn, we think, but there is also a lot of defending either the status quo which we understand, or national interests, that's very very powerful.
>
> (ENGO 5)

7.3.2 Preserving the CAP by responding with the public goods rationale

A key aspect of learning on the organisational level is whether policy-makers in the European Commission reflected on the information that a socio-political consensus has been formed in favour of CAP reform towards a public-goods model:

> [Integrating environmental considerations] is an insight that occurred and succeeded globally, whether you take the Agenda 2000 or the Rio Process. This is a global reflection process that of course developed here as well.

<div align="right">(EC 21)</div>

This was also emphasised by another key actor from the European Commission:

> It is several factors. When the EU signs an international commitment, it has to act accordingly. (…) Then there were many activities of environmental interest groups around the Rio and Kyoto [UNFCCC summits]. (…) These environmental groups increased their pressure (…) via stakeholder consultative forums we have here at DG Agriculture. (…) I came to realise that you can't make policies against public opinion, not too long. I mean, you don't need to make policy according to the public opinion, but you can't go against existing trends that are getting stronger for too long. You have to justify yourself.

<div align="right">(EC 22)</div>

This threat of overwhelming political pressure based on the 'scrap the CAP' coalitions' potential ability to convince the public of its unacceptability resulted in a change of policy-beliefs among key decision-makers in the European Commission and in some member states. They realised that it would be necessary to reform the CAP before the political pressure to abandon it would become too strong:

> What we have to do in the CAP is, yes, we have to change, this is what we believe in if this policy is to have a future, yes it will have to adapt. The question is always do you want to sit in the driving seat with the industry, do we want to do it ourselves as being responsible for the policy, or do we wait until the public pressure and the pressure from climate change, and environment, until every soil is destroyed in Europe, do we wait until then until we are forced to do these changes. And the choice the Commission has made is let's take the initiative as long as we had the right to take the initiative.

<div align="right">(EC 24)</div>

Based on this rationale, Commissioner Ciolos emphasised the link between greening and climate policy integration in a key statement sketching out the path of the next CAP reform while also asking for input on a multitude of questions related to sustainable agriculture in a wide public consultation (EC 2010):

<div align="right">199</div>

The first communication of our Commissioner Ciolos when he came in the Commission in 2010 he made this speech on I think April 12, 2010 in the European Parliament in which he said societal justification of the huge amount of money which is spent yearly on CAP is something we need and that was for him to signal the greening policy (…). That is a major step towards bringing in line CAP with societal desires and bringing in the concept of societal justification of the money spent on the agricultural policy.

(NMS 4)

Policy design beliefs point towards the overall architecture of a wider policy programme and are represented by opinions of how a policy programme should look like (see chapter 3). In the example of agricultural policy this would be the CAP overall as a common policy among all member states of the EU. Policy detail beliefs concern the question whether the CAP should have a multi-annual budget and the policy direction of continuous reforms over the past 30 years to adapt the policy to changing demands in the economic, social and environmental framework conditions. Further policy detail beliefs concern major structural decisions such as the impact-model of price support and maintaining high levels of food production versus a public-goods model that emphasises public value for subsidies such as the protection of the environment and social cohesion by supporting rural development. In the CAP such policy detail beliefs are represented by the introduction of the second pillar on rural development and the overall shift towards a public-goods model.

Policy-makers at the European Commission acknowledged the outside pressures by the coalition in favour of 'scrapping the CAP' (Nedergaard 2008; Pirzio-Biroli 2008; Syrrakos 2008). They reflected on this information, i.e. that continuing with 'business as usual' was not an option and that in order to maintain their objectives of an agricultural policy that is carried by all member states and based on public support to farmers, they would need to adjust the policy to reflect the changed policy design beliefs of society. This can be regarded as factual learning among the involved policy-makers, especially in the European Commission, but also in some member states. During the 1990s, these policy-makers came to adjust their policy design beliefs to reflect the changes in the socio-political landscape: the CAP needed to change to reflect the changing realities of environmental degradation and food safety, or it would loose its public support (Moehler 2008; Pirzio-Biroli 2008; Swinnen 2008b).

> At the DG for Agriculture, several of us concluded that if we wanted to preserve the CAP, we needed to change it; if we wanted to succeed in changing it substantially, we needed to just about guarantee the historical support levels to European farmers and avoid a negative impact on their revenues. Yet, a reform package leaving the CAP budget unaffected (except for enlargement) had no chance of acceptance in the College of Commissioners unless we adopted a new approach, and took it by surprise.

<div align="right">(Pirzio-Biroli 2008: 103)</div>

This group of like-minded policy-makers is referred to as the moderate reform camp, which formed its own coalition besides the 'status quo camp' of the farm associations and most member states such as France, Spain, Germany and Italy; and the 'scrap the CAP' coalition of market-liberals in the member states and environmental groups (Nedergaard 2008). Most policy-makers changed their policy design belief that the CAP needed to adapt in order to be preserved in the 1990s. Since then this has become a stable, shared underlying belief among the members of the 'moderate CAP reform' coalition. This shared underlying belief has become a conviction and key rationale for the post-2013 CAP reform, as a key actor pointed out:

> The public consultation supported this but it were clearly two ideas: one is it is needed for the environment, for the soils, biodiversity, carbon leakage; it is needed for other environmental challenges. It is needed, this is our conviction, A. And B, it is needed because the public asks for goods by farmers that go beyond the food production.

<div align="right">(EC 24)</div>

This shared belief was emphasised by all interviewees at the European Commission who were involved with CAP reform as key motivation for the continuing reform process, of which the post-2013 greening and climate policy integration proposal was one more step (e.g. EC 21; EC 22; EC 23; EC 24; EC 25; EC 14; EC 19; EC 20; Moehler 2008; Pirzio-Biroli 2008; Syrrakos 2008).

It is important to recognise that the European Commission was not a neutral actor, but actively tried to transform its policy design belief of adapting the CAP to socio-political realities in order to save it into a concrete policy outcome. This is reflected in the policy proposals for CAP reform and the Commissions' strategies during the negotiations in the Council and more recently in the European Parliament, although it is formally reduced to a facilitating and observing role (Craig 2010):

My understanding of [the European Commission's activities] through the trilog process certainly is that they were very much negotiating as well and had their own negotiating strategy, had their own tactics for getting the things that really mattered to them. I mean there is a period in the negotiations where they sit back a little bit more and let member states argue it out amongst themselves, but I think ultimately it was very clearly they had their own negotiating priorities as well. (…) At the beginning, they were very defensive about their proposals and it took a long time before they were willing to really discuss changes. It may have even been as much as a year before they explained their proposals in working groups but weren't really willing to consider any changes. In the end, they became much more flexible because they frankly just had to be.

(NMS 10)

The process of drafting a policy-proposal, negotiating a compromise within the European Commission between the different Directorate Generals and convincing both the Council and Parliament to adopt it with as few changes as possible has been unchanged over the past 30 years. Some actors among the 'status quo' coalition consisting of farmers associations and some member states (Nedergaard 2008) have adjusted their rhetoric to reflect the socio-political consensus of the 1990s and 2000s in favour of the public-goods model. This move however could be regarded as a tactical move to ensure their political survival and protect them from having to change their deeper or policy design beliefs.

As discussed in the section on learning on the individual level, neither individuals nor, as a consequence, their organisations adjusted their beliefs that the CAP must be preserved accordingly. Consequently, there was less constructivist learning among the 'status quo' coalition in terms of changes in underlying beliefs than could be expected at first glance. The coalition of the 'scrap the CAP' camp rather served as external pressure on the policy-makers within the European institutions, who predominantly belonged to the 'safe the CAP' coalition but drew their motivation and argumentation from the more radical demands. Thereby, they actively influenced public opinion as a tactical move to gain political support and momentum. This was the case for the Fischler reforms in 2002 as indicated by Fischler's Head of Cabinet Pirzio-Biroli and confirmed by a member of the small team that prepared the proposal:

CAP opponents seemed at times ready to scrap the CAP, which means throwing out the baby with the bath water. Scrapping the CAP is not an option. European treasuries that may still dream of it should think twice before opting for short-term gimmicks. Their simplistic and narrow budgetary view was fought by

Fischler's more systemic approach seeking internal compromises among, and corresponding mentality changes by, the various stakeholders. Fischler sought to find new allies in support of both the conservation and renewal of the countryside (…). [Fischler's] compromise approach was expected to make the policy more acceptable internally as well as internationally, in particular to farmers (through simplification and by re-establishing a certain confidence in their future), rural people and society at large. Nevertheless, Fischler advocated a tectonic shift in CAP support over time.

(Pirzio-Biroli 2008: 104)

The process and objective did not change for the Ciolos reform when the Commissioner and his Cabinet initiated a public consultation process and thereby demonstrated the overwhelming public support for strengthening the greening and climate policy integration components. On the contrary, it rather confirmed the pre-existing position that more greening and climate policy integration was needed:

The Commission's position coincides since several years rather with our position. I know the Head of the Agriculture Cabinet, I don't want to say well, but we met several times and I know reliably that the Commission wants to go into this direction. Because of that there are also the ecological focus areas, which the Commission itself proposed.

(NMS 4)

7.3.3 European Commissioners acting as policy entrepreneurs

The European Commission does not only act on behalf of shifting public opinion and overall societal consensus, but it also takes an active role in manufacturing this very public consensus as a justification for its policy proposals and as a tactic to convince the member state's ministers in the Council:

Throughout all of the reform talks, Council reluctance had been addressed by Fischler and a 'green team' with one spokesman for each member state drawn from the cabinet and the DG for Agriculture informing the relevant stakeholders and public opinion. Fischler and his staff went on the offensive, participating in literally hundreds of conferences and in interviews by all sorts of national and regional me-

dia, as well as through contacts with non-governmental organisations. The aim was to let reluctant ministers realise that society at large demanded a less bureaucratic and more environmentally-friendly agricultural policy, and a shift from market-distorting support towards rural conservation and renewal.

<div align="right">(Pirzio-Biroli 2008: 108)</div>

Fischler and the 'Fischler reform'

This quote from Fischler's Head of Cabinet illustrates that especially European Commissioners took on an active part in the reform process and in order to succeed also acted as policy entrepreneurs. Especially Franz Fischler is frequently portrait as outstanding example of a policy entrepreneur who acted as a key architect by using various negotiation strategies and tactics to ensure the success of 'his' reforms, the Agenda 2000 reform and the 2003 Mid-Term Review, which is widely known as the 'Fischler Reform' (Feindt 2010; Nedergaard 2008; Swinnen 2008a). A member of Fischler's team commented on the Commission's reaction to their drafting process by pointing out Fischler's strategic role in avoiding large controversies within the European Commission:

> The first thing to say is that the reform was prepared, I would not say in secret, but certainly … it was prepared in a very smooth, quiet way. (…) Now, I think in terms of the Commission it played out in the process quite well in relation to the main actors involved. DG Environment had been doing communications on environmental integration and internalisation, externalities and so on, I think the approach that was taken was very well in line with that and I think there was a good working relationship with DG Environment and DG Trade I suppose. Clearly, in relation to trade and cross compliance, there were many different DGs who saw different issues they were concerned about, reflected in the regulatory framework, but certainly there was not a big battle, it was a reform that had broad support, but I think this was also down to Fischler, who had a very strong role in the Commission.

<div align="right">(EC 25)</div>

Fischler had a reputation as reformer. He was an agricultural economist who had been a long-serving Austrian minister for agriculture and negotiated Austria's EU accession. He had extensive expertise on agricultural policy and by his second term of office he had considerable experience in negotiating CAP reforms (EC 25; Pirzio-

<div align="right">204</div>

Biroli 2008: 102). To avoid early opposition from the 'status quo' coalition, Fischler prepared the 2003 Mid-Term Review in a close-knit team of six experts that included his head of cabinet Pirzio-Biroli, a member of his cabinet, and three experts from DG Agriculture. Fischler managed to gain an unanimous vote among the European Commissioners in favour of his proposal before the agriculture ministers from the member states, who were predominantly opposed to the proposal, had time to regroup and prepare their counter-arguments (Pirzio-Birroli 2008: 106). Before the vote of the Council, Fischler made a deal with Tony Blair to convince Spain to withdraw from the blocking minority of reform-critical countries, which was led by Jacques Chirac, who had played a key role in 'watering down' the Agenda 2000 CAP reform and tried to prevent Fischler from being re-elected for a second term as European Commissioner for Agriculture (Pirzio-Biroli 2008: 105ff; Syrrakos 2008: 118; Swinnen 2008b). Fischler used policy-entrepreneurial negotiation tactics and his own expertise to push his reform proposal through the Council against strong French opposition:

> On the 26th of June 2003, during the last night of negotiations in Luxembourg, the commissioner refused any suggestion of a further postponement, because he feared the creation of a new blocking minority (for example, with Italy replacing Spain). (…) During the last night 'finish', all experts were asked to leave the negotiating room, while ministers were asked to stay there without interruption, and it was made clear that no more written compromise papers would be tabled by the Greek presidency and Commission until an agreement was in sight. This allowed Fischler to submit his personal compromise proposals on all outstanding issues orally, such that they could not be leaked to capitals, and to ask for oral ministerial reactions on the spot: 'yes or no, and if no, why not'.

> (Pirzio-Biroli, 2008: 107)

This strategy was only possible because Fischler possessed the necessary expertise to defend the proposal himself. He put himself into a negotiation advantage by blocking off the agricultural minister's contact to the capitals since their staff could have provided them with arguments and expert knowledge. He was also at an advantage because the agricultural ministers had not been 'in the loop' during the drafting process of the CAP proposal, what would have allowed them the necessary time to prepare counter-arguments and corresponding studies (Swinnen 2008a). A major factor for the successful adoption of the 2003 Fischler reform was him taking on the role of a policy entrepreneur with strong beliefs (in Fischlers case, that the CAP needed to

be saved; Pirzio-Biroli 2008) and who made use of all available strategies to steer the political negotiations towards a desired policy-outcome that is in line with deeper and policy design beliefs:

> Fischler has been portrayed by both supporters and detractors as admirably indefatigable, persuasive and possessing a mind that understood every technical detail while forgetting nothing, sheer lasting power (while in this case seemingly necessary) was certainly not sufficient to get the measure passed in the Council.

> (Syrrakos 2008: 123)

A key environmental lobbyist also confirmed Fischler's key role in integrating greening objectives into the 'institutional machinery':

> I think a lot had to do with Fischler himself. (…) I think he was just an influential person generally. (…) [Countries] may send politically expedient choices but not necessarily people with big personalities and big ideas and Fischler over the last 20 years has been one of those people and we saw that too because he was responsible for the fisheries reform in 2002 and although that didn't have as much promise as we hoped at the time it was still a pretty important greening process officially and Austria's not well known for its fishing fleet so it's evidence again of somebody who just has passion and that's the people around as well in his cabinet.

> (ENGO 9)

While the changing socio-political landscape opened up a window of opportunity for Fischler to propose his ambitious Mid-Term Review, it was not the decisive motivating factor:

> Fischer was extremely involved and he was a very active Commissioner. I remember in terms of the communication [i.e. the legislative proposal], well I mean he was right into it and he didn't delegate to this Cabinet. (…) He was certainly the guiding force in the reinforcement of agri-environment, on decoupling, and I think on cross-compliance, he was very active. (…) He was always somebody who was very involved in the detail, but I think this is part of his background, he was a specialist, he understood it all. And the second thing is he was not only a 'technician', he had a very strong political sense. (…) It was very much his reform. It was 'The Fischler Reform'. I remember, the communication went through 20 drafts, and most of the drafts we discussed with him, so you see he made the investment. I think he had his ideas, and politicians are politicians. I think his reform was successful because the circumstances were favourable.

> (EC 25)

Greening the CAP – the 'Ciolos reform'

The negotiation dynamics regarding the post-2013 CAP were fairly similar to the 2003 CAP reform. The civil servants involved into this reform were predominantly the same individuals who already contributed to the Agenda 2000 and Fischler reforms with some involvement even dating back to the 1992 MacSharry reforms (EC 21; EC 22; EC 24; EC 25). The European Commissioner for Agriculture and Rural Development Ciolos was the Rumanian minister of agriculture and acted based on his deeper beliefs and policy beliefs that greening and climate policy integration is crucial to maintain the CAP and use it to contribute to sustainable development as illustrated above (section 7.1). He decided to capture the socio-political consensus for strengthening the public-goods model of the CAP in the next reform with a wide-reaching public consultation that received more than 6000 submissions from all kinds of civil society and consumer organisations, environmental NGOs and farm lobbies.

> What is a new approach we have chosen in this reform, it all started with a big political debate and a big conference where we invited all the stakeholders, and not only the farmers, and this process has been ongoing now for two years. (…) We are not doing anything else than just translating the reality out there into policy. So it's very difficult for a politician, for a minister, in any given member state to say 'I am against greening'. 'I am against the fact that farmers should deliver more public goods. I am against better standards for biodiversity. I am against better quality of soils I am against better quality of water'. It's very difficult to say that for any politician at the moment in Europe. And we are not doing anything else.

> (EC 24)

Participants in the CAP reform suggested that the public consultation was a strategic move by the Agriculture Cabinet to demonstrate the far-reaching public support for their greening objectives:

> Oh, I think that the head of cabinet is the thinker behind the Commissioner but that the Commissioner sketched out the direction. There was, this was tactically very skilled by the Cabinet, this relatively early integration of all groups in this stakeholder process, where was asked before any proposals were made by the Commission, what society expects from agriculture policy. (…) Then there was a big conference in Brussels around March 2010 where everyone had another opportunity to make a statement. Then they analysed the contributions and it was cleverly orchestrated in this case that they were able to develop their ideas out of the question catalogue and set their mandate. Yes, the overwhelming majority of the European citi-

zens, associations and organisations would like to see a shift in agriculture policy towards nature, climate and environmental protection. So, there is a demand for greening agriculture policy. This is what [the Agriculture Cabinet] concluded from this huge stakeholder process. And this was of course done very sophistically. Therefore, because you asked me about who had more influence, I think it was both, but the head of cabinet, when you talk to him you notice that he has thought things through. He is really fascinating. And since he is from Austria, I think this comes not at a surprise as the Austrians have always been the most progressive in implementing agri-environmental measures.

(NMS 4)

This strategy facilitated the negotiations with the member states and the opposing 'status quo' coalition. The 'CAP reform' coalition within the European Commission thus demonstrated that there is a socio-political consensus in the wider public, collected the evidence via conferences, workshops and stakeholder consultations, and summarised it into the policy proposal (EC 2011b; EC 2011c). Representatives of the European Commission thus acted again as policy entrepreneurs to orchestrate convergence on a common position that was as close as possible to their original proposal.

A further motivation of both Commissioners Fischler and Ciolos was also to leave a legacy by putting their 'mark' on the CAP with the reform(s) what would be named after them. Franz Fischler commented on the motivation of leaving a legacy at a meeting of European Agricultural Economists:

Franz Fischler was there and he described, paraphrasing, the [2014-2020 Ciolos] reform as a 'compromise of a compromise, and if you get too many alterations of that compromise process, then it does get certainly into the danger of being too wishy washy and insignificant, and he [Ciolos] must be mindful of the importance of a Commissioner's legacy, and I am sure Ciolos would want to leave his mark on the process of CAP reform and there is a big potential in greening and there is also the beginning of the budgetary conversion process and I guess his legacy would be partially dependent on the performance of these two negotiations'.

(EP 10)

Overall, the 2014-2020 Ciolos Reform of the CAP was not as successful in its greening components as hoped for by many key actors, particularly due to the dominant role of the member states in their calls for flexibility:

You might criticize the Commission from an environmental perspective that the proposals were not going far enough. DG Agri had a very clear approach to say "This is our approach. We have a very sensitive balancing of everything" and maybe that might have been the mistake. It's also my personal opinion and observation that the Commission went in with too less negotiation material concerning the greening. If you had put at 10 per cent clause for example or 10 per cent requirement on focus area maybe they would have cut out it not so much. If you had put some more cross-compliance requirements they would have cut it down but not everything but it was only a few additional ones so almost none remained. This might have also been a reason but maybe or maybe not because as I said it was mainly the MFF problem with having much less money to spend and other much more important political issues like internal-external convergences which were basically overriding any in-depth discussion or more in-depth political fighting about the greening and this is also how it turned out.

(EC 19)

One reason why learning that took place during the drafting and negotiation process was not necessarily reflected in the policy outcome was the lack of a window of opportunity which would be comparable to the 'perfect storm' (Swinnen 2008a) the 2003 Fischler-Reform benefitted from:

2001 was the Swedish presidency, the Göthenburg Summit and Sustainable Development Strategy so that had already been in the making for three years so 1998, 1999, 2000. (…) So almost the *zeitgeist* at that time was moving in these directions and obviously you'll have read that Sustainable Development Strategy in 2001 and there were parts of that that were quite modern. In 2002 we had the 10-year anniversary of the RIO in Johannesburg. The climate then was quite a lot of business and industry was coming for the first time towards the sustainable development agenda. (…) There were signs, genuine signs, of concern at climate change, at resource issues. The beginnings of them at least, and then the five year review of Sustainable Development Strategy was Austrian presidency 2006 so the Austrians took sustainable development pretty seriously. I think the other thing is that it's a lot easier when you're 12 members or 15 members than when you're 25, 27, or 28 member countries and I think that's made a lot of difference in terms of effective change, leadership change. I don't think Ciolos could do today as easily at what Fischler could have done with a smaller group of member states.

(ENGO 9)

The 20 per cent climate mainstreaming decision

In parallel to the CAP reform, the Directorate General for Climate Action also intro-
duced the proposal to dedicate 20 per cent of the EU 2014-2020 budget to climate pol-
icy integration measures (EC 2011a). This decision in the College of Commissioners
came about because the Commissioner for Climate Action can also be regarded as a
key policy entrepreneur who buildt political momentum and convinced other decision-
makers with a combination of expertise, experience and passionate speeches:

> Oh she is a very strong person, with her own views and a lot of self-confidence, as
> most politicians have… she is very clever and hard-working and very energetic,
> (…) and she has integrity, has a drive, and she has political communication skills.

> (EC 16)

The circle of individuals involved in the CAP climate policy integration com-
ponents within the European Commission was fairly small. Across all levels of the
hierarchy, they were very dedicated, possessed high expertise and long-standing ex-
perience in agriculture, climate issues and environmental policy integration, and ac-
tively promoted the introduction of climate objectives into agriculture and the overall
EU budget by using and extending their existing networks with their relevant counter-
parts inside the European Commission (EC 14; EC 15; EC 16; EC 17; EC 20). Co-
ordination and cooperation was crucial as climate policy integration was not a policy
proposal in its own right, but consisted of interventions into other Directorate Gen-
eral's resorts, what frequently results in resistance on the policy-drafting levels (EC
14; EC 15). If these are not resolved, they are carried 'up the hierarchy' into the meet-
ing of the European Commissioners, the College of Commissioners without much op-
portunity for other policy-makers to reflect on the input and engage with the context:

> But we just pushed it through because we saw the political opportunity that this
> budget could look different if it had a headline target that sold it as a green, more
> modern, innovation based EU budget. It would sell well with the public and I think
> Barroso understood that. So we were talking more political than analytical. It was
> the best vehicle we could find for mainstreaming into other policies. (…). But the
> budget was a really big thing. Because it sets the parameters for the EU's spending
> programmes until 2020. And given that we had a 2020 target and a 2020 strategy,
> we had to put that, we had to reflect that into the budget otherwise there was a dis-
> connect. So this were the sorts of arguments we were using. And then, [the Euro-

pean Commissioner for Climate Action] was persuasive in the College [of Commissioners], we got a lot of nervousness in the end whether they had put it in, but they did. But it was literally in the college meeting where it was decided.

(EC 15)

Consequently, the EU 2014-2020 budget was seen as an opportunity for climate policy integration by the Directorate General who is in charge of this issue area and that consequently used negotiation tactics to achieve its objectives with the help of passionate policy entrepreneurs. These policy entrepreneurs were crucial for policy outcomes to emerge, but in the negotiation process they were not necessarily 'teaching' (Bomberg 2007) the other policy-makers about the importance of their proposal. Instead, they used bargaining tactics, rhetoric and their own passion and expertise to 'push their proposal through' (EC 14; EC 15; EC 16; EC 24; EC 25; Moehler 2008; Pirzio-Biroli 2008). This however is not a negative indication; it only demonstrates that learning rarely occured on the organisational level, which is dominated by the policymaking machinery. This 'machinery' created a certain path-dependency in carrying policy proposals initiated by policy entrepreneurs, partly through following orders, what is different from defensive avoidance; and partly through the personal conviction of individuals.

However, even if actors took on the role of 'teachers' (Bomberg 2007) in the negotiation process, it does not necessarily mean that they succeed and the counterpart 'learned' by being convinced or at least gaining more knowledge. Not all actors accepted the rationale used by the European Commission that society required the CAP financial resources to support public goods such as the environment:

It didn't convince much of the people actually. Of course it was farm ministries in the Council. We always were pointing out that the big bill comes in the end in 2020 whether there's a real justification. It didn't impress so much and especially some MEPs in the conservative party said "What you're saying, public money for public goods, I don't know where you got it from. Maybe from some green NGOs but my people who elect me have a different opinion and I follow that opinion of the people which elect me" which is rural area farmers for most of them. So very clearly it didn't impress very much.

(EC 19)

The situation was similar in the Council:

> It's so many different (…) issues, on some [the European Commission] persuaded member states a bit, but actually, if member states were unwilling to agree on changes to the status quo that would mean any additional burden, any additional financial cost and I think even on issues where the Commission argued quite long and fiercely that this wouldn't make much of a change to member states. Some of the new financial rules under the horizontal regulation, the member states weren't convinced. Certainly on some things. I mean it's just a whole mixed bag on some things the Commission's argued on, but I think actually in the end, less than I thought might be the case.

(NMS 10)

7.3.4 The impact of learning on the policy outcome

Especially the European Commissioners for Agriculture and Rural Development acted as policy entrepreneurs (Roberts and King 1991; Swinnen 2008a) and actively gathered public support, tried to convince political decision-makers and very strategically orchestrated the political negotiation and bargaining process to push their policy proposals through the European institutions. However, while some constructivist learning occurred on the individual level, constructivist learning on the organisational level was hardly present. As outlined in chapter 3, for learning on the organisational level to occur an overall reflection process within the European Commission and among the European institutions on greening and climate integration aspects would have emerged and resulted in changed positions among member states represented in the European Council, the overall negotiation mandate of the European Parliament for the trilogues or the European Commission's proposal. For a change in beliefs to occur, a wider discussion would have been necessary among the different Directorate Generals of the European Commission and among the member states on the rationale of dedicating 20 per cent of the European Union's budget over the next seven years to climate measures, including greening the CAP. Yet this discussion did not occur as several actors involved in the negotiations emphasised:

[The proposal on dedicating 20 per cent of the EU Budget to climate action] didn't have a huge amount to be honest. I mean in all the discussions, the EU, I don't think I ever really heard anybody in the CAP reform negotiations refer to the 20 per cent. I mean I think it's clear that in the process member states were very good at saying "yes we all need to deliver real environmental benefit", but then we spent a lot of time actually trying to limit the impact of the greening proposals. I mean (…) climate change was not regularly cited by many member states at all as a driving factor or an important reason behind one of their policy positions. I mean the Commission were perhaps a little bit better, but DG Agri didn't refer to it that widely so I mean I don't think there was a huge overlap between the two [proposals] and I don't think there was a huge impact of that 20 per cent figure on the CAP negotiations.

(NMS 10)

This was also pointed out by a representative of the European Commission:

It's a play of numbers and the use is very limited actually when you look at it in terms of result and this was also I think a criticism of the court of auditors anyway that they think too much expenditure-based and less result-based. That's why the real revolution of the CAP reform might be totally invisible. It's the indicators. Measuring the CAP's success by indicators which means we have to look for certain results and we have to put them in figures and we have to present them in the end to justify the intervention logic and this approach is there. The new thing is that not only the Second Pillar is now measured in indicators but the First Pillar too and we have some climate-related indicators there too and maybe these indicators will play a much bigger role than just expenditure targets which is just part of the whole puzzle.

(EC 19)

It would have required a reflection process among the member states and the Directorate Generals of how this approach could be implemented or strengthened in national budgets. Yet, there was no discussion of mainstreaming in the MFF negotiations. Such discussion would have required the member states to form a position on the issue by reflecting on their national interests. Constructivist learning could have occurred as a result of changing their position based on a change in the underlying beliefs that such climate policy integration measures would be beneficial (or harmful) in the long run and could form part of their climate mitigation efforts. This wider process of changing underlying beliefs among member states, political party coalitions in the European Parliament or Directorate Generals of the European Commission however was not initiated as there was no reflection on the proposal in discussions or negotiations. Instead, alternative explanations of negotiation tactics, political interests and coalition building remained dominant:

> I didn't see much learning to be honest. The Commission came forward with an approach which was very well balanced which was even criticized by NGOs before as saying it didn't go far enough so we can consider it probably well balanced and the other two legislatures went in with maximum wishes. Christmas wishes I might call it and this is the old approach. You go into negotiations with maximum wishes and then you start trading wishes and you come out with some results.

> (EC 19)

At the same time policy entrepreneurs 'pushed' their climate policy integration proposals through the decision-making arenas using conventional negotiation bargaining tactics. This was evidenced when key actors referred to the standard-mode of policymaking:

> But I think by and large I would not see that much learning because this is a very, how should I call it, this is a machine which works for many, many years and it is always the same. In the council, you have different ministers but the principle is the same, the way we work with member states. I think all the players know each other extremely well, in this field, in this industry, there is a kind of a family, it is a large family, but it is a family. There are a lot of very strong personal relationships among the players, which also help to find solutions and they can open the talk without being always in a formal negotiations. So that's the reason... I don't think there is necessarily a learning process involved in this, it's more about improving the proposals towards whatever is needed and showing the necessary flexibility to adapt.

> (EC 24)

It could however be argued that the policymaking machinery perpetuated and re-inforced changes which may have been a result of learning. In the case of Franz Fischler, there is little doubt that his deeper beliefs, which also included rural development and environmental protection, formed at some point in time before his active involvement as Commissioner for Agriculture and Rural Development. While in this role, he followed his 'green' beliefs and made use of the window of opportunity that was also referred to as 'the perfect storm' (Nedergaard 2006c; Swinnen 2008a) to realise the greening aspects in the 2003 Mid-Term Review. At this moment, the CAP had achieved a new level of path-dependency, which set an improvement in the greening aspects of the CAP on any future reform agenda. This explanation is capable of accounting for the references of individuals involved in the CAP reform who stress that it was an institutional machinery following a self-perpetuating process (EC 20; EC 21; EC 24). A very relevant aspect is that the European Commission was able to

take a longer-term view that goes beyond the time span of headlines in the press and the next election, what enables these policy-makers "to do the right thing" (EC 24). Due to this longer time horizon it was easier to reflect on policy proposals, take scientific inputs into account and to translate the overall public consensus in favour of greening and climate action into a policy proposal.

There was however a certain degree of experiential learning that perpetuated into the 'institutional machinery' of DG Agriculture. While deeper 'green' beliefs already existed among key individual actors and did not change or demonstrably diffuse to other actors during the policymaking process, they were instrumentalised on the organisational level to protect DG Agriculture's (and the wider 'moderate reform camp's') deeper belief that the CAP must be maintained, which was also shared by the individuals acting on it's behalf. This reflection on societal value change in the form of the 'public money for public goods'-debate resulted in the key conclusion that greening the CAP is an appropriate step to maintain sufficient public and political support. This instrumentalisation of greening protected the overall status quo of the CAP as Europe's largest public finance instrument and allowed to continue on an incremental reform track in line with overall changes in the socio-political landscape. The policy entrepreneurs consequently did not convince the rest of their governmental organisation of the importance of greening or climate policy integration in its own right, but only of its relevance for achieving the already existing organisational objective of maintaining the CAP while allowing incremental changes to its policy design.

Thus, there was a link between the individual level of the policy-maker, who already holds beliefs in line with the policy outcome of greening the CAP, and the organisational level that accepts an instrumentalisation of greening to continue to achieve it's organisational objective (i.e. belief) of maintaining the CAP within a reform process. In consequence, neither the underlying beliefs of the policy entrepreneur on the individual level or DG Agriculture/ the European Commission or the member states on the organisational level changed. The only change that occurred was a change in the framing that agriculture needs to contribute to the public good of environmental protection and climate mitigation, which was a reflection of long-term changes in the socio-political landscape.

7.4 Conclusion on learning in the CAP reform

The previous sections drew a complex and detailed picture of different types of learning that occurred across the individual and organisational level over two decades. It also illustrated that learning on one level can coincide with policy outcomes, but these policy outcomes are not necessarily a result of learning as widely assumed by the policy learning literature (e.g. Koch and Lindenthal 2011; Schout 2009). It also demonstrated the importance of individuals who act as policy entrepreneurs based on their underlying beliefs as agents of change to arrive at a policy outcome. Yet again, alternative explanations such as lobbying, power politics and bargaining in negotiations predominantly explain the policy outcome, not learning via changes in beliefs among the actors. Changes predominantly occurred in the form of policy-makers recognising shifting preferences in the socio-political landscape and within individuals in the form of increasing knowledge and gaining work experience with CAP reform. The main-streaming and greening proposal of the 2014-2020 CAP reform appears as policy innovation. This is not the case when the modus operandi of 30 years of CAP reforms is taken into consideration. Then the latest CAP reform emerges as a logical next step towards a strong public-goods model in a long line of marginal adjustments of policy detail beliefs. The greening aspects of the CAP are built on developments dating back to the 1980s. Climate policy integration in the CAP is a further development from greening the CAP through the MacSharry (1992) and Fischler (2000/ 2003) reforms to increase the legitimacy of the subsidies paid to farmers (also suggested by Feindt 2010; Swinnen 2008a). It was re-framed as 'public money for public goods', of which climate action and environmental protection are key elements.

Which type of learning on the individual and organisational level occurred depended on several factors. The key issues were the interplay of long-term learning in the form of shifting beliefs among wider society that set the political framework parameters. It also depended on whether individuals found the time to reflect on new input and were subsequently able to convince their organisation of its importance and the resulting necessity to change the organisation's negotiation position. The key drivers for a successful policy outcome were policy entrepreneurs in key positions who had the opportunity, knowledge and personal drive as well as conviction to steer the

political process into their desired direction using predominantly conventional nego-tiation tactics to 'outsmart' the other coalitions. Experts involved in developing a pol-icy proposal did reflect on information presented to them by external experts and stakeholders, however they were in many cases already familiar with the information. On the same token most experts involved in European climate policy integration al-ready held beliefs favouring environmental protection and increasing climate action, which did not change by being involved in reforming the CAP or the wider main-streaming of climate objectives into the MFF 2014-2020. The following table pro-vides an overview on the research findings for learning in integrating climate policy while designing and negotiating the legislative proposal for the CAP post-2013.

Table 6. Learning in the policymaking process for the 2014-2020 Common Agricultu-ral Policy. Compiled by the author.

	Alternative explanations	Factual learning	Experi-ential learning	Constructivist learning	
Indi-vidual level	**Dominant**: Members of CAP policy subsystem are experts holding strong beliefs (reforming the CAP/ budget as routine task)	**Limited**: Some MEPs through stakeholders; Experts re-flect on new scientific in-put	**Limited**: MEPs (first involve-ment); Marginal for experts due to itera-tive pro-cess; ex-perts learn from ex-perience with past round of re-forms	**Deeper beliefs**	**No change:** Farmers, member states, Eu-ropean Commission, MEPs
				Policy design beliefs	**Change over longer term (1990s) in moderate reform coalition**: accept that envi-ronmental protection matters to public; CAP needs to adapt to maintain public accept-ability **No change in short-term**
				Policy detail beliefs	**Change over long-term in line with policy core; No change in short-term**
Or-ganisa-tional level	**Dominant**: Interplay of policy entrepreneurs, ex-perts, institutional objectives and bar-gaining-based policymaking pro-cess (routine) to transfer shifts in the socio-political landscape into pol-icy outcome, driven by strategic interest to maintain CAP; 'EU machi-nery' and opposing political interests	**Yes**: Increase in knowledge due to reflec-tion on emer-ging scien-tific consen-sus on nega-tive envi-ronmental impacts of CAP; influ-ence of cli-mate change debate as pol-icy frame	**Limited**: Iterative process (policy-reform)	**Deeper beliefs**	**No change**
				Policy design beliefs	**Yes over longer term (1990s) in moderate reform coali-tion**: accept that envi-ronmental protection matters to public; CAP needs to adapt to maintain public accept-ability; **No change in short-term**
				Policy detail beliefs	**Change over long-term in line with policy core; No short-term change**

The data indicates that some learning occurred, especially factual and experiential learning through reflection on scientific evidence and involvement in policymaking. However, constructivist learning in the form of changes in underlying beliefs only occurred via the socio-political landscape over the long term with the change in perspective that the CAP must also serve environmental and climate concerns with a 'public money for public goods' rationale that was taken on by key individuals as argument to preserve the CAP. Thus, these beliefs on the wider CAP objective changed among actors in the 'moderate reform' coalition on the individual level in a long-term perspective to reflect the overall societal consensus for a public-goods model. From the individual level, they were transferred onto the organisational level that represents the 'policymaking machinery' between the different Directorate Generals of the European Commission, the European Parliament and the Council.

For many actors it however served the primary function to justify the continued existence of the CAP as Europe's largest subsidy programme and thus the 'public goods' narrative also points towards alternative explanations to constructivist learning, which remain dominant on the organisational level. These include political interests, lobbying and bargaining in negotiations. Policy entrepreneurs (who learned beforehand) played crucial roles in the negotiation processes for the success of the policy proposal. They used 'conventional' negotiation tactics and strategies expected by intergovernmentalist perspectives (Moravcsik 1993; Slapin 2008). The findings regarding the socio-political landscape indicate that it can be a driver for learning when a long time frame is chosen for the analysis such as reaching back three decades. The following chapter compares these findings to the findings of the Renewable Energy Directive case study and draws wider lessons on learning.

Chapter 8

Comparing across cases:

Discussion of findings on learning

There is a difference between factual, experiential and constructivist learning in European policymaking. Furthermore, alternative explanations such as power politics, the institutional machinery and defensive avoidance can have a similar explanatory power for policy change compared to learning. The first section of this chapter compares learning in greening the Common Agricultural Policy with learning in European renewable energy policy, including the cross-cutting case of biofuels. The next part analyses the three emerging key determinants for learning to occur on the organisational level: policy entrepreneurs, pre-existing beliefs and institutional culture. These factors determine whether individuals, the institution and/or wider society reflect on the input provided and arrive at a re-evaluation and potential change in their beliefs, i.e. whether constructivist learning occurred. The findings from the in-depth case studies are compared with findings in the academic literature regarding learning in European climate policy and the theoretical framework.

Crucial determinants for learning are what kind of beliefs each coalition of actors holds and if these beliefs are compatible with the other coalition's beliefs and thereby their policy objectives. The time factor also matters, i.e. when key actors formed their deeper and policy design as well as policy detail beliefs. Depending on the time frame, learning can be included or excluded as a factor for policymaking (see Radaelli 2009). There is also a link between the European Commission as 'collective policy entrepreneur' and individual policy entrepreneurs, who either act according to pre-existing deeper beliefs, change them as a result of wider developments in the so-

socio-political landscape or change their beliefs as a result of input provided during the policymaking process. If this policymaking process is a long-term reform process, learning is more likely to occur in the long term but only 'normal' learning in the sense of additional knowledge or experiences can be detected in the short term.

8.1 The socio-political landscape as driver for learning and policy change

Wider changes in how society perceives environmental, economic and social challenges as well as subsequent changes in political framework conditions played an important role as driver for learning. Nilsson (2005; Nilsson and Eckerberg 2007) and Feindt (2010) focused in their empirical analysis on changes in the wider policy frames on what can be regarded as the socio-political landscape, for example from 'energy as risk' to 'energy as market' (Nilsson 2005) and outline wider societal support for changes in policy. They used shifts in the way energy policy is framed as evidence of learning. Similarly, Feindt (2010) concluded that learning occurred in the overall process of introducing greening aspects into the CAP. The findings point towards shifting policy frames over three decades that were influenced by wider socio-political perspectives and overall shifts. In that sense, Nilsson's (2005) findings can be compared to the analytical dimension of the socio-political landscape in this thesis, which accounts for overall shifts in how society and the wider political spectrum, including dominant economic actors and voters, see and frame the issue and determine framework conditions as well as entry points for learning among individuals and governmental organisations to occur.

In both case studies, policy-makers' perceptions of societal changes and shifting public preferences provided the driver for policy development. Interviewees pointed towards hallmark events on the international level such as the 1972 Stockholm Summit/ UN Conference on the Human Environment (Biermann, Davies, and Grijp 2009) as the origin of integrating environmental aspects into agriculture and en-

ergy policy. This coincided with a bottom-up movement of environmentalists, green political parties and the founding of many major environmental NGOs that subsequently entered the political sphere to represent environmental interests (Olper 2008). The next big push towards environmental and climate considerations came from the international level with the 1987 Brundtland Report and the 1992 Rio 'Earth Summit' where governments agreed on the Agenda 21 and the Rio Declaration on Environment and Development. They furthermore established the United Nations Convention on Biological Diversity and the United Nations Framework Convention on Climate Change, which agreed on the Kyoto Protocol in 1997 (Wijen and Ansari 2007). This resulted in pressure on the EU to implement its international commitments by setting up climate policies. The EU needed to 'save face' by delivering on the international commitment and leadership role it had taken on (Jordan et al. 2010; Schreurs and Tiberghien 2007). Both civil servants at the European Commission and political decision-makers pushed for renewable energy policy and began to develop policy proposals for what became the Renewable Electricity Directive (EU 2001) and the Biofuels directive (EU 2003a) with an indicative target of 5.75 per cent by 2010.

An important driver for greening in the CAP was the more formalised and professionalised political representation of environmental interests since the 1990s, which provided a balance to the interests of established actors such as industry, both in the agricultural and the energy/ transport sectors. In the case of the CAP, environmental actors' influence increased to a point where they counter-balanced the agricultural lobby in some aspects that until the late 1990s was seen as the most powerful and influential actor due to its close links to agricultural ministries in the European member states and the 'revolving doors' of political representation on the European Parliament's Committee on Agriculture (ENGO 1; ENGO 2; ENGO 4; ENGO 5; ENGO 8; ENGO 9). The environmental NGOs influenced public opinion via the media, spectacular protest and scare campaigns as well as networked themselves into political decision-making circles as 'green lobbyists', thus becoming an important actor capable of countering the agricultural lobbies influence to a certain extent (as pointed out by EP 4; Industry 1; Industry 2; Industry 3; Industry 4; Swinnen 2008a). The activities of environmental NGOs, the political success of green parties, emerging food scares of the 1990s such as BSE and increasing awareness of and public support for animal welfare accumulated to an impression among the political decision-makers that there

is an overall societal support for greening agricultural practises and demand to deliver on public goods. Key public goods are preserving the landscape, providing environmental services and supporting sustainable development in a manner that preserves critical environmental capital for future generations. At the same time, there was strong criticism of agricultural intensification and wasteful use of tax money for a policy that was distorting world food markets and required even more financial resources to dispose of overproduction (EC 24; Swinnen 2008b: 142). Environmental actors also facilitated the increasing public support for renewable energy policies. They however only played a secondary role in their early development between the 1970s and 1990s.

Renewable energy policy was also motivated by wider developments in the socio-political landscape and overall support. Renewable energies were framed by decision-makers predominantly as alternative energies to fossil fuels, which carried the hope for reducing the high dependency on politically unstable alliances with OPEC and former Soviet-Union states. Renewable energies also promised local economic development as their deployment was of a more local character than the import of fossil fuels. These two factors, in combination with the fact that renewable energies faced less major opposition such as nuclear power, prompted the European Commission to conclude on a wider societal consensus in favour of their overall desirability (EC 1). This perception of a wider consensus also had a positive effect on local decision-makers, who were supportive of policies that facilitated the uptake of renewable energies and grouped together in city-level initiatives such as the Covenant of Mayors and ICLEI, which were also supported by the European Commission (EC 1). Biofuels and biomass, which were used as alternative fuel in agriculture since the 1980s, played a special role as means of local economic development and energy security.

Consequently, the greening of agricultural policy emerged as a necessity in the 1980s and especially 1990s to sustain public support for Europe's largest transfer programme of public funds. Policy-makers felt the pressure to adapt the CAP before the public pressure to 'scrap the CAP' became too strong. This was regarded by many interviewees as the most important external driver induced by the socio-political landscape for policy development towards greening in the CAP. The pressures in renewable energy were very similar, although the window of opportunity was defined more by understanding renewables as opportunity for economic development and means of improving energy security.

It is important to note that both policy areas existed due to other motivations than climate mitigation. Only later, as climate change became a strong public concern, i.e. it was reflected in the public mood (or referred to as 'national mood' by Kingdon 1995: 146-149), renewable energy and greening measures in agricultural policy were re-framed as contributions to climate mitigation via low emission energy production and increasing green vegetation as carbon sink. The socio-political consensus that climate change needed to be addressed via reducing greenhouse gas emissions emerged in the mid-2000s during a window of opportunity. The economic situation was seen as favourable enough to allow 'low politics' such as the environment and climate change to enter the political agenda. Policy entrepreneurs such as Al Gore with his movie 'An Inconvenient Truth' were successful in raising public awareness of climate change (Guggenheim 2006). The IPCC report (IPCC 2007) and the Stern review (Stern 2006) provided the scientific and economic evidence to act on climate change rather earlier than later. These and further developments resulted in a major shift in the wider policy landscape in support of climate change policies and thus opened up a window of opportunity for reforms in the CAP and European renewable energy policy to take these changed political and social framework conditions into account.

Similar to Nilsson's policy frames (2005), these empirical findings illustrate that the European socio-political landscape evolved over the past 30 years from an energy security frame towards a sustainability frame that allowed a re-framing of renewable energy not as a matter of energy security, but as a key instrument in addressing climate change. In that sense, the empirical findings of this thesis match with Nilsson's (2005) policy frames that shift over time and provide wider societal support for policies as well as facilitate the emergence of and shift in policy goals. However, the empirical findings and the methodological approach in determining learning across also the individual and organisational level and furthermore the inclusion of factual, experiential and constructivist learning goes far beyond Nilsson's (2005) observation that over a 25-year time frame wider societal goals change in favour of integrating environmental objectives into other sectors. Certainly, this is also a form of learning, but it can rather be regarded as a *basic prerequisite* to initiate a policy process. Within this policy process, learning could happen as a result of those wider drivers – but there can also be alternative explanations for a policy outcome.

In conclusion, the motivation for policies can frequently be found in the socio-political landscape. It includes the policy-maker's *perception* of wider public opinion, political or societal consensus in support of a certain policy option and wider windows of opportunity such as overall support for climate change policies due to a higher awareness of the problem and willingness to accept regulation. A further determinant in the socio-political landscape is the political power of certain political parties and groups representing interests of specific non-governmental actors. These findings in themselves are not new but rather confirm the drivers for policymaking emphasised in the 'classic' public policy literature and confirmed by empirical studies, also within an EU context (Ackrill, Kay, and Zahariadis 2013; Zahariadis and Allen 1995; Zahariadis 2013). Kingdon (1984) arrived almost 30 years ago at the conclusion that a mixture of external events, the public mood and its perception of what problem deserves more political attention matters strongly for the problem steams to merge and a window of opportunity to open up. The wider drivers for policy change *can* include developments in the socio-political landscape such as new actors, overall public support for renewable energies, changing social demands and new areas of public concern including climate change. These shifts in the socio-political landscape are a motivation for actors to reflect on the changed framework conditions and to subsequently adapt existing policies or to design new policies – but they are not necessarily learning.

8.2 When and why learning occurs among decision-makers

Of those contributions that examined learning among individual policy-makers and learning on the organisational level, the majority examined learning types that could be summarised as factual and experiential learning including political learning among individuals (e.g. Braun 2009; Dunlop 2009; May 1992; Montpetit 2009) and instrumental/ governance learning on the organisational level (e.g. Dunlop 2010; Eising 2002; Feindt 2010; Heikkila and Gerlak 2013; Koch and Lindenthal 2011; Radaelli 2009; Schout 2009). The following section discusses the missing link between shifts in the socio-political landscape and learning on the individual/ organisational levels.

8.2.1 Factual and experiential learning on the individual level

There are different models of factual and experiential learning among policy-makers. The pre-existing knowledge and experience determines how steep the learning curve of the policy-maker is. Civil servants at the European Commission were frequently technical experts who often had decades of working experience in the policy field and/ or a related educational background that was evidenced by postgraduate degrees in the policy area including PhDs or even postdoctorate research. Their learning curve thus remained incremental as they were adding to an already vast pool of expertise. The learning curve was much steeper for politicians such as the Members of the European Parliament (MEPs), particularly in the CAP where they were involved via co-decision for the first time (Costello and Thomson 2013). They pointed out the time and workload constraints they were under and the resulting inability to acquire expert knowledge on the issue. In this sense, the individual learning among MEPs was very similar to the way individuals in management positions at the European Commission learned who had limited previous knowledge and experience in the policy field. These individuals predominantly learned by being involved in the process, listening to their technical experts in meetings with representatives of other European institutions or external actors. Learning among 'managers' and 'technical experts' was thus different. While the technical experts added to their knowledge and experience by reading detailed technical scientific studies for example on carbon accounting, specifications for technologies such as heat pumps and were engaged in energy modelling exercises themselves, the managers called on their experts to represent the European Commission in meetings with other policy-makers. By being involved in the negotiations and listening to their experts, the managers gained experience and also accumulated factual knowledge around the technical and political arguments as well as rationales for proposing a certain course of action. Consequently, it can be concluded that individuals did engage in factual and experiential learning while being involved in the policy-making process, having to argue and defend their position and also discussing with other actors the scientific basis of reports and studies.

The biofuels aspect of the Renewable Energy Directive demonstrates how the degree to which scientific knowledge was contested also influenced individual learn-

ing. The contested knowledge resulted in a more intense factual and experiential learning process among the individuals involved as they needed to find scientific studies to back up their (politically pre-determined) arguments and to defend their proposed course of action using and explaining scientific data to the opposing coalition. With the first reform to the RED in the form of a proposal on remedying negative effects of biofuels in terms of indirect land use changes, the actors involved in this process continued to debate the technical details of carbon accounting and land use changes. The debate was less focused on broader political considerations but on knowledge-based aspects. This required policy-makers to understand the methodology behind the scientific studies, which provided different results depending on the modelling approach taken. Thus, they were involved in an intensive factual and experiential learning process that was described by a key member of the policymaking community as "going to the University of Biofuels" (EC 5).

These differences in how individuals learn in policymaking based on their roles and positions have been widely neglected in the relevant literature on learning in EU policymaking. The literature predominantly focused on learning on the organisational level (e.g. Dunlop 2010; Feindt 2010; Koch and Lindenthal 2011; Radaelli 2009; Schout 2009), on management reforms and its administrative consequences (Bauer 2008) or on comparative survey research (e.g. Montpetit 2009). Only Page and Wouters (1994) provided details on educational backgrounds of EU policy-makers in their study on political leadership and bureaucratic politics in Brussels. Dunlop (2009) and Montpetit (2009) compared learning among policy-makers in the EU and in the US, yet without particular attention on how their role influenced their learning.

8.2.2 Political and Instrumental learning cloaked as constructivist learning

Deeper beliefs, policy design beliefs and policy detail beliefs were more difficult to change than an addition in knowledge or experience and can thus be regarded as fairly stable. Individuals even went as far as to engage in factual and experiential learning as well as political manoeuvring to avoid having to change deeper and policy detail be-

liefs, but to protect these by engaging in factual learning to satisfy society's wider policy preferences. These findings match with the academic literature on the advocacy coalition framework, which emphasises how virtually impossible it is for deep core beliefs to change (Sabatier 1988; Sabatier and Jenkins-Smith 1993; Weible, Sabatier, and McQueen 2009). 'Deeper' beliefs however are weaker than 'deep core' beliefs but stronger than 'policy' beliefs. The empirical data suggests that there is a category of beliefs between the absolutely stable deep core beliefs, i.e. a person's fundamental understanding of the world, and how overall policies should look like to address a specific policy problem. There are beliefs that are 'deeper' than this, which are based on a person's opinion on whether global problems such as climate change matter (deeper belief) and whether they should be addressed via policies (policy design belief) and what exact policy instrument should be used, e.g. emissions trading (policy detail belief; see chapter 3).

Sabatier and Jenkins-Smith (1993) also pointed out that individuals rather change their policy detail beliefs to protect their deeper beliefs. One dimension is 'instrumental learning', as discussed in the previous section, when actors adapt their policy detail beliefs to changing wider socio-political circumstances to protect their policy design and deeper beliefs. The other dimension of constructivist learning on the individual level is the extent to which deeper and policy design beliefs are formed over the long term and how they change in parallel to wider changes in society's policy preferences and deeper shifts in beliefs within the socio-political sphere.

This is the key link that was missing in the previous contributions that conceptualised learning as shifts in the socio-political landscape (Feindt 2010; Nilsson and Persson 2003; Nilsson 2005; Nilsson and Eckerberg 2007). Mere shifts in the public mood and wider political, problem and politics stream (Kingdon 1995) can be less interpreted as learning themselves but rather as a drivers for learning. These shifts in the socio-political landscape can however result in individuals' changes of beliefs and thus constructivist learning provided that the individual *reflects* on these inputs. What frequently happened however is that the driver in the socio-political landscape did not result in constructivist learning but instead in political and instrumental learning that *appeared* to be constructivist learning.

In line with overall shifts in the socio-political landscape, key actors pointed out in the interviews that they had reflected on the evidence provided by the IPCC and

publicised by Al Gore's movie 'An Inconvenient Truth' (Guggenheim 2006). His key message was that climate change exists and is an increasing problem that needs to be urgently addressed by policies. This can be understood as the formation of a policy design belief on the individual level that 'something' needs to be done about climate change. This rather abstract conviction increased policy-maker's willingness to reflect on policy detail beliefs regarding the exact policy design. Yet it is important to keep in mind that agricultural and transport policy only have limited inherent links to climate policy with their primary objectives of providing sufficient quantities of food or facilitating the transport of people and goods at a reasonable price and quality. There was pressure both on DG Agriculture and DG TREN/ Energy to integrate climate objectives into agriculture and energy policy due to overall societal demands, which can be interpreted as the 'national mood' already described by Kingdon (1984).

In the case of the CAP, key actors pointed out that it was important to take 'pre-emptive' steps to maintain an overall social and public acceptability of Europe's largest subsidy programme. This required them to listen not only to the demands of farmers, but also of environmental and social NGOs representing citizens, i.e. taxpayers' and consumers' interests. Key actors thus understood the importance of changing the policy to satisfy the interests 'of the other 97 per cent' (EC 21; EC 24). This can be understood as a change in policy detail beliefs among key actors: Policy-makers changed their perspective on how a specific policy instrument should look like and which stakeholder group it should primarily benefit. In the RED, the overall re-framing of renewable energy as climate mitigation placed new demands on the policy-makers who understood renewable energy as equally serving the objectives of energy security, economic development and climate mitigation.

This seemingly constructivist learning on the individual level in terms of changing policy detail beliefs is rather 'instrumental' learning, as the overall policy design belief of policy-makers did not change because they were still primarily worried about having a policy framework that facilitates agricultural production, food security and the secure provision of affordable energy. Although most key actors developed a policy design belief since the 2000s that 'something needs to be done about climate change' and were thus more willing to integrate climate objectives into their own policy area as long as it is not contradictory to their actual policy design beliefs, this policy design belief did not emerge as dominant driver. Key actors pointed out in-

stead that it was important to integrate environmental and climate objectives to maintain enough public legitimacy and acceptability for the continued existence of the CAP and to strengthen renewable energy policy. Thus, the change in policy design beliefs over the medium term to integrate environmental and climate objectives into the CAP and energy policy can be attributed to instrumental learning undertaken to preserve Europe's largest and oldest subsidy programme as primary motivation and as conflict in policy design beliefs among renewable energy policy-makers who regarded energy security and rural development as equally important to climate mitigation.

This may be a particularity of the climate policy integration focus inherent to the selection of case studies. In all cases, governmental organisations were required to integrate climate and environmental objectives into their 'core business'. In the biofuels case, the objective of reducing greenhouse gas emissions was followed as long as it coincided with the objective of improving energy security and supporting economic development, the other two but equally important objectives. After the scientific evidence regarding the mixed climate performance emerged and the environmentally focused coalition changed their policy detail beliefs in line with their deeper beliefs of principled environmental and climate objectives, the underlying but diverging deeper beliefs resurfaced beyond the shared policy design beliefs that climate mitigation is important. Faced with a choice, the economic development minded coalition re-focused on their other two core objectives of energy security and (rural) economic development, which were still uncontested and could be furthered with a 10 per cent target of renewable energies in transport, even if it was a 'de facto' target of 10 per cent biofuels given technological limitations.

Ultimately, these findings confirm what Radaelli (2009) and Koch and Lindenthal (2011) discovered when they concluded on instrumental and political learning in the European Commission as response to the requirement to take into account the findings of Regulatory Impact Assessments (Radaelli 2009) or comply with demands for Environmental Policy Integration (Koch and Lindenthal 2011). Particularly the similar findings of Radaelli (2009) on the use of Regulatory Impact Assessments to inform policy choices and May's (1992) accounts of the dominance of political learning resulting in policy failure in several case studies across policy areas indicate a wider relevance of these findings beyond climate policy integration towards other policy areas that are faced with conflicting objectives.

8.2.3 Comparison of case study findings with the academic literature

These findings on factual and experiential learning among individuals and the European institutions are neither surprising nor groundbreaking and confirm the hypotheses brought forward by the existing empirical literature (especially Braun 2009; Dunlop 2010; Eising 2002; Feindt 2010; Koch and Lindenthal 2011; Montpetit 2009; Radaelli 2009; Schout 2009). Instead, they indicate that the research design and methods used in this thesis were appropriate in their choice and application as well as precise in their analysis, thus leading to independent results that match with the expectations from the theory-based and especially the empirical literature that is also situated in the EU context and partly examines case studies in the area of climate policy integration. Earlier contributions that examined aspects of the case studies predominantly before 2003-2013 focused on the 2001 Renewable Electricity Directive (Eising 2002), the implementation of the 2003 Biofuels Directive in the UK (Dunlop 2010) and the Fischler Reforms of the CAP (Feindt 2010) and wider aspects of environmental policy integration in the European Commission (Koch and Lindenthal 2011). In the case studies examined in this thesis, especially experiential and factual learning among individuals was dominant due to their involvement in the policy process. Constructivist learning as changes in beliefs based on experiential or factual learning remained rare.

Koch and Lindenthal's findings (2011) could be interpreted as suggesting that the Directorate Generals (DGs) for Energy and Transport (DG TREN) as well as DG Enterprise engaged in non-learning and experiential learning when they were confronted with DG Environment's increasingly institutionalised environmental policy integration measures that invaded and partly contradicted the other Directorate General's core measures. Actors refused to reflect, ignored orders or engaged in lip service and following orders. These findings are closely related to defensive avoidance explained in detail by Janis and Mann (1977) and political learning to protect core and policy beliefs emphasised by Sabatier (1987; 1998) and subsequent literature reviews (Bennett and Howlett 1992; Zito and Schout 2009).

The findings by Dunlop (2010) on dominant single-loop learning, which was used and conceptualised accurately linking back to the Organizational Learning literature (Argyris and Schön 1978), were confirmed by the interviewees involved in the

biofuels controversy that evolved from 2007 onwards after Dunlop's time frame of analysis ended. They emphasised experiential and factual learning individually and on the organisational level, including getting better at using tactics to defend their objectives against the other coalition in the decision-making process within the European Commission and among the European institutions. Dunlop (2010) offered an interesting interpretation to the UK's Department for Transport's decision to ignore the scientific evidence on the negative climate effects of first generation biofuels by justifying this behaviour as (single-loop type) learning by doing to grow the biofuels industry and thus gain a competitive advantage on more climate-friendly second and third generation biofuels from non-food crops. She also pointed out that this type of single-loop learning is more feasible for governmental organisations than the disruptive double-loop learning of changing objectives.

The empirical findings of the biofuels controversy 2007-2013 however show that this is only the case as long as there are no competing coalitions as a result of one group changing its goals and policy detail beliefs about policy instrument design based on the new scientific evidence. This reluctance on the side of the economic development minded coalition to act on the new scientific evidence (and thus to engage in what Dunlop refers to as double-loop learning) led to the controversy that required the Secretary General of the European Commission as policy broker to intervene and force a policy outcome – which was thus not the direct result of learning. In turn, the policy outcome of the RED resulted in the need to reform the biofuels component in 2012 by limiting the indirect land use changes of first generation biofuels. This became more difficult in 2012 than in 2008/ 2009 as in the meantime member states heavily invested in biofuels, farmers found a lucrative side-business to food production and the biofuels industry has a stronger lobby to defend its interests with the support of the agriculture lobby. This time delay thus resulted in a path-dependent policy favouring the continued use of first generation biofuels as vested interests formed.

In consequence, had constructivist learning occurred between 2004 and 2007 when the new scientific evidence emerged, the policy outcome might have been different enough to avoid the strong uptake of first generation biofuels by the industry and the strong economic interest in maintaining first generation biofuels given the heavy investment by member states, farmers and the grown biofuels industry. The implications of the case study on biofuels are thus that Dunlop's normatively good 'sin-

gle-loop learning by doing' contributed to a politically delicate situation and controversy that strengthened the path-dependency of the 2003 Biofuels directive and made a change in policy outcomes very difficult in the future due to the strengthened vested interests in maintaining the now 'status quo' of first generation biofuels. In other words, learning by doing led to a lock-in into the first generation biofuels and hindered progression to the second and third generation biofuels with expectedly less negative impact on climate mitigation. Thus, there are links to what Levin et al. (2012) refer to as 'sticky' policies, yet on the side of unintended consequences.

Eising's (2002) contribution pointed to policy learning as a hypothesis and alternative explanation for intergovernmental bargaining and political interests in the development of the Renewable Electricity Directive. Although he made an interesting and valid theoretical argument, the policy learning aspect was not sufficiently conceptualised to allow closer comparison. Similarly, Feindt's (2010) focus on wider shifts in the CAP make a comparison with the findings on the individual and organisational level difficult as this aspect was not included in his empirical findings. This makes the discussion of the expert background of key actors in the CAP and their relevance for learning a novel contribution. The contributions in Swinnen (2008a) pointed towards the importance of policy entrepreneurs, but did not link their behaviour to learning.

8.2.4 Conclusion on 'normal' learning

Overall, factual and experiential learning among individuals can be regarded as part of the European policymaking process in both the RED with its biofuels component and in the greening of the CAP. It is however rather a 'normal' or 'routine' occurrence that is rather trivial for the policy outcome (Rietig and Perkins 2013). Yes, individuals did learn, and the more expertise they had and the deeper their understanding of manoeuvring through the policymaking machinery was, the better they were able to influence the policymaking process in line with their political objectives. But in that sense, learning remained instrumental to achieve a certain objective such as developing a policy proposal and riding the rapids of the political decision-making process

well enough to fulfil one's job description. Most of the policy learning literature is focused on this aspect of learning when it talks about 'instrumental learning' (May 1992), 'political learning' (Radaelli 2009), 'social learning' (Feindt 2010), 'government learning' (Bennett and Howlett 1992) or compliant/ non-compliant single-/ double loop learning (Koch and Lindenthal 2011). The commonalities of this dominant learning type in the policy learning literature is the *strategic* use of knowledge and experience to achieve one's policy objective without the necessity to reflect on the input or change one's underlying beliefs. The occurrence of this type of learning in the policymaking process has also been confirmed by this research. However, there is more to learning in policymaking than simply learning 'how to play politics better'. The next section thus examines the conditions under which learning is transferred to the organisational level and potentially reflected in the policy outcome as key contribution of this research.

8.3 Conditions for constructivist learning

The empirical findings point towards a number of conditions for learning that match the key expectations from the meta-theoretical framework presented in chapter 3. Learning can occur in the complex interactions of the individual and organisational level, which are further influenced by wider developments and major shifts in the socio-political landscape. For constructivist learning to occur in the policymaking process, the policymaking conditions need to support reflection on input and a change in perspectives. This can be hindered by several factors such as defensive avoidance, bargaining tactics and power politics. It can also be hindered by an organisational culture that does not support reflection and changing perspectives or is not open to changes based on the input by individuals who have learned. Thus, the link between the individual and organisational level is very important for learning to be transferred into the policy outcome. If there is a disconnect between those two levels, individuals may well have learned, but the organisation and ultimately the policy outcome do not re-

flect this change in beliefs, including policy detail beliefs on how a policy instrument should be designed. It is normal that individuals who are involved in a policymaking process learn in terms of acquiring new knowledge and experience, thus engaging in factual and experiential learning. In some cases this may be sufficient to result in a policy change, while in other cases only constructivist learning in the form of changed deeper, policy design and policy detail beliefs is carried on to the organisational level, where it results in a policy proposal that is adopted by the other governmental institutions. However, especially constructivist learning can result in policy change if the modified individual beliefs spill over the organisational level as key actors considerably influence the policymaking.

It was important to differentiate in the empirical analysis between pre-formed deeper beliefs and newly formed policy design beliefs and to control for pre-existing beliefs, green or otherwise. Key actors in the CAP and the RED case study maintained their beliefs and subsequently tried to align the policy outcome with their pre-existing beliefs. Therefore, the time frame of analysis is important. In a long-term time frame beginning in the 1970s, individuals learned and changed their deeper beliefs parallel to the changes of what society regarded as important in the socio-political landscape. The overall concern about energy security in the 1970s in the face of shortages had an impact on society and policy-makers alike, which resulted in a willingness to search for alternative fuels. The shift towards the public goods model in the CAP also coincided with strong public concern about food safety and environmental degradation in the 1990s, which also marked the entry of environmental nongovernmental organisations. Policy-makers reflected on these wider socio-political changes and also changed their individual beliefs accordingly. The third major instance was the mounting scientific evidence on climate change and its emergence onto the socio-political landscape between 2006/ 2007 marked by Hurricane Katrina, the Stern Review (Stern 2006) on the economic costs of climate change, Al Gore's movie (Guggenheim 2006), the publication of the IPCC report (IPCC 2007) and the award of the Nobel Peace Price to the IPCC and Al Gore for raising awareness on climate change.

These shifts in the socio-political landscape also illustrate the importance of windows of opportunity. These were further conditioned by outside factors such as the economic situation. Many interviewees emphasised that the window of opportunity for climate policy and climate policy integration closed with the economic and euro-

zone crisis as member states were pre-occupied with more immediate economic concerns including increasing unemployment, resulting in a strengthening of the economic development minded coalition. This resulted in a lower priority for environmental and climate change concerns as they were less tangible for many policymakers and voters confronted with threats to the survival of (environmentally polluting) industries and higher costs associated with integrating climate objectives. Nevertheless, key aspects such as the conditionality of 30 per cent of farm payments on compliance with greening measures and the dedication of 20 per cent of the European Union's 2014-2020 budget to co-benefits on climate measures were maintained in the policy outcomes and thus point to path-dependencies of policymaking beyond those windows of opportunity.

The time frame is linked to a further crucial condition for learning to occur and to be transferred into the policymaking process and ultimately the policy outcome. This depends on the political feasibility of actors' 'new' policy detail beliefs within the dominant coalition. If these actors encountered a window of opportunity and used it to gather the necessary political support for their policy proposal, the learning was likely to be reflected not only in the policymaking process, but also in the policy outcome. Learning can thus be regarded as not trivial for the policy outcome. A further condition to be examined was what deeper beliefs the decision-makers held at the beginning of the timeframe.

This research illustrated that constructivist learning in the sense of changes in beliefs should be free of any normative judgement regarding its desirability. It also showed that pre-held deeper beliefs can also have a strong result on the policy outcome. Some of the actors within the not environmentally minded coalition held pre-existing green deeper beliefs, which were formed early on in their personal development. These can be based on a childhood in the countryside and thus intensive exposure to nature and animals, what led these individuals form deeper beliefs on the intrinsic value of preserving the environment. Especially a high number of key actors in agricultural policy emphasised that they grew up on farms or were farmers themselves, some of them still maintaining their farm on a part-time basis. The deeper beliefs of these individuals could be characterised as attaching a high importance to environmental sustainability as prerequisite to safeguard the conservation of natural resources for future generations and sustainable farming practises to ensure soil fertility.

The second group formed its deeper beliefs in favour of environmental sustainability in the 1970s when they participated in environmental and anti-nuclear movements, participated in the academic debates surrounding the 'limits to growth' debate or were participating the UN World Summit on Sustainable Development. If learning was analysed within a long-term frame, and these individuals did not fall into the first group, their deeper beliefs most likely changed from a neutral/ indecisive point of view towards green beliefs. Their professional career may have led them subsequently into positions that were aligned with these green deeper beliefs, i.e. within the environmentally minded coalition in policymaking. If they however were working for an organisation or governmental department that had other objectives not always co-beneficial for the environment, individuals with green deeper beliefs also ended up in key decision-making positions within these not primarily 'green' organisations. This was partly the case in the greening of the CAP during the 2000s reforms and especially in the post-2013 negotiations on the side of the European Commission. Individuals in the first and second group, who were already holding deeper beliefs, also aligned their policy design and policy detail beliefs to reflect their deeper beliefs and thus shaped the policy proposal to reflect wider consensus in favour of greening – what also coincided with their own beliefs.

The third group were individuals who changed or formed their beliefs based on the evidence on climate change presented to them between 2006 and 2007, especially if they had no prior involvement with environmental or climate policy. Some members of the 'economic development focused' coalition in the Renewable Energy case study and of the 'status quo' as well as the 'moderate reform' coalition in the CAP can be regarded as having formed or changed their deeper beliefs following the overall change in the socio-political landscape towards concern about climate change. They thus engaged in constructivist learning by having reflected on the evidence on climate change provided to them by the media and the IPCC and having come to the conclusion that climate change existed and was a problem (deeper belief), and that something needs to be done about it in the form of policies (policy design belief), with specific ideas forming on how this policy should or should not look like (policy detail beliefs). In this case, constructivist learning occurred on the individual level as a result of changes in the socio-political landscape.

There were enough co-benefits for members of the economic development coalition in the Renewable Energy Directive to support climate change objectives, especially as these also matched their other policy design beliefs on energy security and economic development. Only when the scientific evidence on the negative climate performance of some biofuels emerged, the economic development minded coalition could not change their policy detail beliefs as they would have conflicted the policy design beliefs on energy security and economic development, which emphasised the benefits of first generation biofuels. This misalignment in beliefs led key members of this coalition to engage in defensive avoidance to protect their policy design and policy detail beliefs. In the case of greening the Common Agricultural Policy, the key actors at the European Commission within the non-environmentally focused coalitions already held green deeper beliefs and the policy design belief that they also needed to do something about environmental degradation and climate change – while also trying to preserve and justify the continued existence of the CAP. The key individual's green deeper beliefs resulted in an intrinsic drive to green Europe's agricultural sector via policy instruments in the form of introducing greening mechanisms into the CAP. Consequently, both learning and the content of the policy change was not purely instrumental or in reaction to external pressures, but coincided with these intrinsic factors in a 'win-win' constellation.

These findings illustrate that constructivist learning of individuals needs to be 'benchmarked' against the deeper beliefs of individuals and not against an externally imposed objective such as a principled priority of environmental protection, climate mitigation, economic development or social objectives, which is the dominant approach in the literature (e.g. see Feindt 2010; Koch and Lindenthal 2011; Nilsson and Eckerberg 2007). Consequently, constructivist learning on the individual level can have an impact on the policy outcome and can be measured based on how well the policy outcome reflects the deeper beliefs of individuals. Another aspect is the 'role' an individual played (or was paid to play) on the wider organisational level and how well learning on the individual level was transferred to the organisational level, where the policy outcome was negotiated and decided. In that sense, the link between those levels is crucial for connecting learning to a policy outcome as illustrated by March and Olsen (1975).

8.4 Transmission of learning into the policymaking process: the key role of policy entrepreneurs

The findings indicate a high relevance of policy entrepreneurs to facilitate or hinder learning, which is more closely discussed in this section. In the Common Agricultural Policy reforms policy entrepreneurs played a key role in getting decisions in favour of climate policy integration adopted in the European Commission. These were actors in high positions that held strong personal convictions in support of environmental objectives and climate mitigation (as pointed out by EC 14; EC 15; EC 16; EC 17; EC 18; EC 21; EC 22; EC 24). In the European biofuels policy, a policy entrepreneur was highlighted from a normative environmentalist perspective as example of how an individual (EC 9; ENGO 1; discussed in detail by Sharman and Holmes 2010) can 'push through' decisions that are not necessarily beneficial for the environment. Yet, the evidence suggests that policy entrepreneurs achieved their outcomes without 'teaching' other actors (Bomberg 2007) and thus persuading them (Risse 2000; Riddervold 2011), but rather due to their sophisticated strategising and steering in the policy process. This section discusses how the findings match with the expectations of the empirical literature on learning in the EU, which has so far paid little attention to the role of individuals acting as policy entrepreneurs as well as their central role in both transferring learning from the individual to the organisational level and in bringing about a policy outcome that may be owed to alternative explanations than learning.

8.4.1 Policy entrepreneurs in European policymaking

Policy entrepreneurs proved to be crucial factors for the transfer of learning from the individual to the organisational level as well as for achieving a policy outcome. In the CAP case study, the European Commissioners and their senior staff were the key actors that developed the policy proposal and steered it through the policymaking process as indicated by one of these key actors, the former Head of Cabinet Pirzio-Biroli (2008; Swinnen 2008b). In the case of the RED, key individuals within the economic

development minded coalition emerged as policy entrepreneurs who also guided the policy process towards its outcome, what confirms the key findings of Sharman and Holmes (2010). Numerous actors were involved in the policymaking process such as experts, lobbyists (businesses, unions, NGOs), civil society, other government departments from the national, state and local level, Members of Parliaments and political parties (Bomberg 2007; Stone 2000; 2001; Zito 2009). Some of these actors had well-developed networks and acted as policy entrepreneurs as they were personally convinced that their policy proposal was 'the right thing to do' and they possessed the necessary expertise and credibility to persuade other actors – or at least the network to call upon such experts. Here the central importance of knowledge in policymaking became visible as also emphasised by Dunlop (2009) Radaelli (1995) and Zito (2001).

Policy entrepreneurs were crucial for the policy outcome and either supported or hindered learning, also depending on their leadership style. They had the option to support learning on the organisational level by trying to 'teach' the other actors by convincing them with arguments and trying to change their beliefs (Bomberg 2007). Yet, no empirical evidence was found in the case studies to support this expectation from the literature. In the CAP key actors rather steered the policymaking process using negotiation tactics to 'push through' a proposal of which they were convinced that it was the 'right thing to do' (Swinnen 2008a; EC 16; EC 17; EC 24), but there was no evidence that they actively tried to persuade other actors of their policy proposal. Furthermore, the key policy entrepreneurs did not act as 'neutral' policy brokers, but as members of an advocacy coalition (see Sabatier 1998; Tallberg 2004; Warntjen 2008; Weible, Sabatier, and McQueen 2009). Thus, there was no empirical evidence to conclude on 'learning brokers'. The evidence instead pointed towards the dominance of 'traditional' negotiation and bargaining tactics as well as a strategic steering of the policy process based on the policy entrepreneur's experience with the subtleties of the policymaking process (Braun 2009; Howard 2001; Krause 2003; Pirzio-Biroli 2008). Especially the target of 'mainstreaming' climate objectives into the EU 2014-2020 budget put forward by DG Climate Action and the subsequent adoption of this objective in the EU budget (European Council 2013) could be seen as an instance where policy-makers learned based on DG Climate Action's role as learning broker. However, the decision to propose a 20 per cent target for climate policy integration in the EU budget was only successfully introduced into the European Commission's

budget proposal at the final decision-making stage in the College of Commissioners, partly also due to the leadership skills of the respective European Commissioner and her ability to 'be very convincing' (EC 6; EC 14; EC 15).

The example of Commissioner Fischler's introduction of stronger greening measures into the CAP (Nedergaard 2008a; Pirzio-Biroli 2008) and the European Commissioner for Climate Action's push for dedicating 20 per cent of the EU budget with the CAP as largest component to mainstream climate objectives also demonstrated how policy entrepreneurs can embed a new objective into the 'institutional machinery'. In that specific instant, not much learning occurred among other individuals involved when the policy entrepreneur 'simply pushed things through':

> But I think by and large I would not see that much learning because this is a very, how should I call it, this is a machine which works for many, many years and it is always the same. In the Council, you have different ministers but the principle is the same, the way we work with member states. I think all the players know each other extremely well, in this field, in this industry, there is a kind of a family, it is a large family, but it is a family. There are a lot of very strong personal relationships among the players, which also help to find solutions and they can open the talk without being always in a formal negotiations. So that's the reason. I don't think there is necessarily a learning process involved in this, it's more about improving the proposals towards whatever is needed and showing the necessary flexibility to adapt to situations.

(EC 24)

This provides a link to the organisational level: It can be regarded as constructivist learning on the organisational level over the medium term if the policy entrepreneur is successful in changing policy design beliefs on the organisational level. In the empirical example, the European Commissioner Franz Fischler is regarded by all actors involved as the decisive policy entrepreneur who embedded greening and environmental objectives into the CAP. This resulted in a new policy objective, originated by the policy entrepreneur, which persists even after this individual has left office. Thus, a decade later, it appears as if not "that much learning" (EC 24) happened as the institutional machinery has adapted to the earlier integration of learning via the policy entrepreneur. Once embedded into the organisational level, the course is being continued in a certain path-dependency as part of the 'institutional machinery' or even an additional institutional objective. The individuals involved in the next policy reforms either changed their underlying beliefs or were simply following the path set out by

the policy entrepreneur in one of the earlier policy reform rounds. In any case, the change in policy design beliefs within the institution results in a new path-dependency and stable policy equilibrium. The next section focuses on other tactics of policy entrepreneurs to achieve a policy outcome that is not necessarily linked to learning.

8.4.2 Instrumental use of expertise to 'outsmart' the opposition

As on the individual level, factual and experiential learning can be used strategically to 'outsmart' other actors in the decision-making process. These findings confirm the instrumental use of knowledge and experience in the European Commission and other European institutions in the policymaking process suggested more or less explicitly by Koch and Lindenthal (2011) and Radaelli (2009). Especially the European Commission plays a leading and even a steering role in the negotiations within the European Parliament and the Council of the EU working groups (Braun 2009) that goes beyond its treaty-based role (Craig 2010; Hix 2005; Nugent 2001; Sabathil, Joos, and Kessler 2008) as neutral observer providing knowledge-based support to the European Parliament and the member states. After the publication of the European Commission's proposal, it has a de-facto steering role that opens up windows of opportunity to influence and even steer the decision-making process.

In the drafting and negotiation of the European Emission Trading Scheme, factual and experiential learning was used to serve exactly this purpose, to 'push through' the legislative proposal (Braun 2009). They achieved this by gaining support from member states and Members of the European Parliament in favour of a policy proposal that was drafted with the input of key stakeholders by the group of civil servants responsible for climate policy at the European Commission. These were very knowledgeable and had learned from the experience shared by stakeholders who had previously implemented this type of market-based policy instrument (Braun 2009: 478). It is however also important to note that these individuals, predominantly at DG Environment, gained most of their knowledge on emission trading between 1997 and 2003 by inviting experts to share their experiences from emission trading pilot projects. These activities enabled them to "organise the necessary political majorities among all

the relevant stakeholders (…) [whereby] these individuals repeatedly found ways to speed up the policy process, to expand the room for manoeuvre and to create new latitude for other actors" (Braun 2009: 482). Braun's (2009) findings confirm the empirical findings of the case studies. Given that only a few key individuals were in charge of developing a policy proposal, thereby gaining deep expertise and taking on an officially consulting role in the subsequent policymaking process, they became powerful negotiation partners based on their knowledge and especially feeling of 'ownership' of the policy proposal they had developed. Their objective was frequently to come forward with a proposal that is as close to the negotiated final deal as possible, thereby taking into account stakeholder concerns rather earlier than later in the process.

At the same time it is important to keep in mind that both the climate policy integration into energy policy in the form of the RED and the European Emission Trading Scheme were a result of the UNFCCC negotiations of the Kyoto Protocol, what took a market-based approach to reducing emissions. The EU accepted the 'deal' of introducing market-based mechanisms with the objective of persuading the United States to sign up to the international treaty. Regardless of the US withdrawal from the Kyoto Protocol, the EU decided to implement emissions trading following the failure of the European carbon tax (Braun 2009: 472). This example illustrates that both developments in the socio-political landscape, which includes wider developments on the global level such as the UNFCCC negotiations, and key policy-makers that act in line with their beliefs, had a decisive role in achieving policy change and that this is not limited to the specific case of climate policy integration but can also be confirmed for single-purpose policies.

8.4.3 Conclusion on the role of policy entrepreneurs

Policy entrepreneurs had a central role in steering policy proposals towards their adoption. Learning depended on how those policy entrepreneurs acted and whether they tried to persuade other actors by 'teaching' them of the importance of the specific policy proposal as emphasised by Bomberg (2007) – or if they steered the proposal through the policymaking process without 'taking the other actors along', but simply

'pushing things through' with power politics, political horse-trading and making use of their expert knowledge of how they can best influence the political process (Biermann 2002; Perkmann 2007; Roberts and King 1991; Stone 2004). The case studies illustrated that especially the latter was dominant. It was based on previous experiential and factual learning of the policy entrepreneur and potentially a previous change in deeper beliefs with a subsequent alignment of policy design and policy detail beliefs. The case studies suggest that policy entrepreneurs rather make strategic use of their knowledge of political dynamics and of the institutional machinery to get their policy proposal adopted than engaging in a mutual learning process to persuade and teach the other actors by trying to change their beliefs. This finding is also supported by Pirzio-Biroli (2008) and Swinnen (2008b), who contributed in-depth accounts of the rationales behind the 2003 Fischler-Reforms of the CAP but did not mention learning as an intervening variable except that Fischler reflected on the experience with the previous Agenda 2000 reform and subsequently adjusted his political strategy (Swinnen 2008b: 157). The empirical findings indicate a methodological aspect widely neglected in the literature: Other than the policy-specific learning discovered by Braun (2009), individuals frequently had their 'learning experience' long before they acquired the ability and opportunity to act as policy entrepreneurs in the specific policy process under analysis. Thus, there is a close link between previous learning and current power politics as well as political strategising, which appear as alternative explanations for policy change – although it is based on learning in previous rounds of policymaking and would not necessarily be 'counted' as learning in the case under analysis.

8.5 What new have we learned about learning in policymaking?

So how do these comparative findings contribute to the academic literature on learning theories and empirical studies of learning in policymaking? In other words, what is new compared to the learning literature focused on policymaking in the EU? This

section discusses how the empirical findings, which can be analysed using the meta-theoretical framework on learning developed in earlier chapters, improve our understanding of theoretical frameworks on learning in policymaking within the EU. Learning frameworks have been developed in the US context with US case studies, both in policy learning and in organisational learning. The EU literature began to integrate learning conceptualisations relatively late, mostly out of engagement with the policy transfer literature and the separate stream of diffusion theories as well as the 'new governance' debates of the late 1990s.

8.5.1 Uniqueness of the European Union – does it matter for learning?

The EU-focused literature predominantly applied US-based theoretical frameworks on learning, but hardly developed its own frameworks. These are mostly a synthesis of Argyris and Schön's (1978; Argyris 1976) single and double-loop learning labelled as 'organisational learning', Sabatier's policy-oriented learning (1988), Etheredge's (1981) governmental learning and May's (1992) 'political learning', and to a lesser extent Hall's (1993) first, second and third order changes labelled 'social learning' by Bennett and Howlett's (1992) influential review article. The most EU-specific learning type that does not explicitly originate from a US-based learning theory is 'instrumental learning' in terms of learning about the content of new policy instruments used by Nilsson (2005), Radaelli (2009) and Schout (2009). This learning about the content and function of more recently used policy instruments however is a very common aspect of learning, which we would expect to find in most policymaking processes oriented at a efficient provision of public goods. Most of the literature that examines learning at the example of EU case studies draws on US-based conceptualisations of learning and did not develop an EU-specific framework to learning. Comparative work found that learning in the EU is similar in its mechanisms to learning in the US. Thus, there are few relevant differences between the learning literatures. Empirical comparative studies of learning in the EU and North America suggest that the EU is also moving towards an adversarial policymaking system and that policy entrepreneurs do play a role in learning (Montpetit 2009):

Policy actors are inclined to learn, whether they belong to the EU or not. The results of the three tests presented in this article call for a significant revision of the theories suggesting that governance in the EU is particularly conducive to policy learning. In fact, policy development in nation states, including North American states, features policy learning in much the same way as in the institutions of the EU.

(Montpetit 2009: 1199)

Do we need an EU-specific framework to identify learning? Given that the meta-theoretical framework developed in this thesis based on the wider public policy and policy-learning literature satisfactorily identifies learning as demonstrated in the climate policy integration case studies, there is little need for an EU-specific framework. On the contrary, the looming 'so what?' question rather points towards the advantage of being able to apply the meta-theoretical framework to any policymaking process than to impose unnecessary geographical limitations on it.

8.5.2 Addressing gaps in the policy learning literature

The previous sections discussed the gaps in the existing literature that aimed to contribute to policy learning. This section links the in parts not coherently used terminology back into the meta-theoretical framework developed in this thesis and demonstrates where gaps remained that were addressed by this contribution. A key finding is that the existing literature rarely explicitly connected the individual level of learning with the organisational level or the socio-political landscape. Contributions usually implicitly limit their theory development and empirical analysis to one level with most contributions focussing on the organisational level. Mainly the 'classics', the contributions made by Argyris and Schön in the 1970s (Argyris 1976; Argyris and Schön 1978) as well as the model developed by March and Olsen (1975) illustrate the link between learning on the individual level with the organisational level, i.e. when learning is transmitted from the individual policy-maker to the governmental organisation and thereby enters the sphere of policymaking with the opportunity of a different pol-

icy outcome from the status quo. This link however has rarely been taken up and been systematically integrated into theoretical frameworks of policy learning.

The second key finding, which is closely related to the first one, is the role of changing beliefs in policymaking. Most of the literature focused on what can be regarded as 'normal' learning and labelled in the meta-theoretical framework as factual and experiential learning on the organisational level (e.g. Dunlop 2010; Gerlak and Heikkila 2011; Heikkila and Gerlak 2013; Koch and Lindenthal 2011; Radaelli 2009; Schout 2009). At the same time, there is a rich literature focusing on beliefs and power in the regime-theoretical and constructivist tradition (e.g. Keohane and Nye 1987; Haas 2000; 2004 Levy 1994; Nye 1987; Wendt 1992). The 'normal' learning literature includes the empirical contributions that link back to Bennett and Howlett (1992) and May (1992) and try to conceptualise or empirically apply learning theories labelled 'instrumental learning', 'policy learning', 'political learning', 'government learning', 'governance learning' and 'social learning'. Social learning (Heclo 1974) emphasises the importance of changing beliefs and values. Yet, there are very different beliefs of varying stability and only examining shifting beliefs results in low accuracy. The public policy literature based on Sabatier (1988) highlights different types of beliefs and provides theoretical foundations that served as inspiration for the aspects on changing beliefs introduced in this meta-theoretical framework on learning (see chapter 2 and 3). Deeper beliefs are the most stable and frequently individuals or groups use all kinds of tactics to protect their deeper beliefs and to ideally align their policy design beliefs and policy detail beliefs. Sabatier (1988) describes this kind of learning as 'problem-based learning', which has been found to occur frequently during the policymaking process and was labelled 'political learning' by other contributions (e.g. May 1992; Radaelli 2009; Schout 2009; Zito and Schout 2009). Hall (1993) provided a similar taxonomy of first/ second/ third order changes, which however provides less accuracy and applicability as there is no clear separation of the policy process from the policy outcome.

This thesis modified the notion of changing beliefs based on Sabatier's (1988) categorisation of deep beliefs, policy beliefs and secondary beliefs. Sabatier's distinction of beliefs has, compared to Hall (1993), the advantage of referring to an objective (i.e. an belief that a policy *should* make use of certain instruments or serve certain objectives) and thus allowing an analysis of the process and the outcome, while Hall

(1993) refers to the outcome, thus falling short of providing for a key interim step of learning. Thus, the specific contribution of this thesis in the area of changing beliefs as learning is the consolidation of the literature into the further development of 'constructivist learning' that asks about changes in deeper, policy design and/ or policy detail beliefs on both the individual level, the organisational level and shifting wider beliefs in the socio-political landscape, which in turn can be a driver for learning.

The third novelty provided by this thesis is to link the importance of policy entrepreneurs for policymaking with learning theories. The specific learning literature underestimates the importance of individuals who take on leading roles as policy entrepreneurs (Kingdon 1995), policy brokers (who play a central role for Sabatier 1988; Weible, Sabatier, and McQueen 2009; Weible and Sabatier 2009) or policy middlemen (Heclo 1974) in steering the policy process and bringing about specific policy outcomes. These policy entrepreneurs are not only 'teachers' as suggested by Bomberg (2007), but they can also bring about an outcome without 'teaching' the other actors and 'bothering' to convince these by changing their policy design or policy detail beliefs. The literature on policy diffusion provides the key link to introducing policy entrepreneurs as conditioning factors for learning and an emerging policy outcome. Especially contributions by Page (2003), Stone (2004) and Zito (2001) illustrate how relevant individuals and small epistemic communities are in policy transfer. The key determinant is to ask the counterfactual question: would the policy outcome be different without learning? In most cases, it would not be very different, as multiple alternative explanations also play an important role. However, in most cases the answer would be 'yes, the outcome would be very different' if it had not been for a policy entrepreneur whose dedication, knowledge and clever use of windows of opportunity resulted in policy change that set a policy off into a new direction. Franz Fischler's involvement in the 2003 CAP reform is a key example (Pirzio-Biroli 2008).

Yet, most interviewees at the European Commission emphasised the 'collective policy entrepreneurship', a key link between the individual and the organisational level that facilitates a policy outcome. This alternative explanation for the policy outcome, which to a certain extent may contain learning on the individual level depending on *when* the individual learned and formed underlying beliefs, has also been widely neglected in the policy learning literature. Following an interview that centred on the question of learning and policy entrepreneurs, a high-level key actor at the Euro-

European Commission and individual policy entrepreneur at the heart of European climate policy humbly concluded:

> Well, these are exciting stories now, even for me. But of course, you know, it's a process, its not a person, you must remember that, and so there isn't an instigator of anything, it's got to be done with the blessing of your hierarchy, it's got to be done with the support of people in the DG working with you.

(European Commission 2012)

It is this combination of determination, shared deeper beliefs and policy design beliefs towards deeper integration, sustainable development and serving the European public together with the experience of manoeuvring the political process in a team effort that makes the European Commission a special collective policy entrepreneur. Together with the diffuse power distribution among the European institutions similar to the US federal system as emphasised by Ackrill, Kay, and Zahariadis (2013; Zahariadis 2007), the European Commission and its Directorate Generals/ Cabinets sit at the 'centre of the storm of policymaking' and are not only key actors and collective policy entrepreneurs, but also have the potential to be 'teachers' given their vast knowledge and expertise. Particularly this combination of experience, expertise and factual knowledge makes the European Commission a powerful political body at the intersection of moderating and steering given the ability to 'outsmart' the European Parliament with fewer resources and some of the smaller member states.

Particularly the role of the European Commission raises the question to what extent the findings on learning are unique for the EU. When zooming out of the EU as a very unique governance system – which at sufficient detail every other state, federal system or intergovernmental organisation is as well – this particular role of the European Commission can be interpreted as aspect of wider organisational culture within the EU that both covers the particular legal role of the European Commission and its policy entrepreneurial behaviour that goes beyond its formal role in the treaties (Craig 2010) as political actor who furthers its institutional interests of deepening European Integration. In that sense, the role of a strong executive that steers policy proposals through the decision-making process and has a considerable impact on the policy outcome can be either a facilitating or hindering factor for learning, which ultimately depends on the organisational culture. Overall, the theoretical framework allows to con-

trol for the activities of policy entrepreneurs in influencing the policy outcome and to analyse their specific role in facilitating or hindering learning as a key variable.

8.6 Conclusion on key contributions to the literature

This chapter discussed how the empirical findings from the three case studies presented in chapter 6 and 7 match with the expectations from the academic literature and determined what key factors matter for learning to occur, to determine which type of learning it is and to understand how learning impacts on the policymaking process as well as on the policy outcome. The case studies confirmed a number of expectations from the academic literature regarding the occurrence of individual learning especially in the area of factual and experiential learning, which is all-evident in the policymaking process. However, as emphasised in the theoretical framework, it is important to 'raise the bar' for what can be regarded as learning in policymaking. Thus, factual and experiential learning can be labelled as 'normal' learning as policy-makers always digest new information and accumulate experience (Rietig and Perkins 2013).

The specificity of this research is the European Commission as particular collective policy entrepreneur who resides in a particular position of power based on its entrepreneurial spirit, shared deeper beliefs of its civil servants towards deeper economic integration and sustainable development in the area of climate policy integration, as well as its unique wealth of knowledge and experience paired with a political objective. This finding influences learning in the EU as it is particularly dependent on the actions of the European Commission, i.e. whether key actors choose to 'teach' the other actors and persuade them, or whether they choose to use their advantage to manoeuvre their policy proposal through the political decision-making process using 'conventional' negotiation tactics – or if they choose not to act as policy entrepreneurs for various reasons. Hooghe described this unique powerful role of the European Commission as "the world's most powerful international executive" (2012: 88).

We would however have expected a connection between constructivist learning and the policy outcome. A key finding is that the temporal aspect of the analysis matters strongly for 'measuring' so that the pre-existing beliefs of policy-makers must be taken into account. A further important determinant is the kind of beliefs any member of a coalition holds. If policy-makers hold deeper, policy design and policy

detail beliefs that are shared by their coalition, then they would be expected to have changed their beliefs and engaged in constructivist learning if they hold different beliefs at the end of the policy process. As the case of the CAP illustrated it is however possible that key individuals, who also act as policy entrepreneurs, hold deeper beliefs that are aligned with the opposing coalition that aims to integrate their objectives and thereby deeper beliefs into the first coalition's policy area. If the key actors' beliefs and the climate policy integrating coalition's objectives match, the policy process is likely to be less controversial. The likelihood for a policy outcome that is aligned with the key actor's beliefs is also higher.

How well beliefs of key actors are aligned with the proposed policy also has an effect on the level of conflict in the policy process and the policy outcome. Here a key distinction between policy integration and single purpose policies becomes evident: in single purpose policies, the beliefs of policy-makers at the European Commission are aligned with the policy proposal. The reason is that the climate policy directorate was in charge of a climate policy instrument, which is its sole responsibility. It thus remained 'in the driving seat', i.e. in charge of the policymaking proposal and the subsequent 'consulting' role in the European Parliament and the Council. The level of conflict remained low in the greening of the CAP as the key actors at DG Agriculture already held green beliefs that were not in contradiction to their other policy beliefs of rural development and maintaining the CAP. This positive alignment of political objectives and beliefs enabled these individuals to play leading roles and also to act as policy entrepreneurs towards an outcome they regarded as desirable.

The biofuels case within the Renewable Energy Directive illustrated what happens when the beliefs of the key actors (DG TREN/ Energy) are in conflict with the climate policy integration objective. The policy outcome of the RED (EU 2009a) is aligned with the beliefs of the key individual policy entrepreneurs that were 'in the driving seat' and whose objective was to maximise energy security, economic development and climate mitigation. After the new evidence regarding the mixed performance of some biofuels emerged, the economic development focused coalition and its policy entrepreneurs regarded the evidence as insufficient and lacking scientific consensus to grant them principled priority over the other two objectives of energy security and especially (rural) economic development, which were still fulfilled. The policy outcome is thus in line with the beliefs of the dominant policymaking coalition.

The changes to the RED via the Fuel Quality Directive (EU 2009b) can be traced back to be in line with the beliefs of the environment focused coalition, which was in charge of the Fuel Quality Directive. It was able to influence the RED via the links between these directives.

These cases illustrate the additional challenges that are inherent to the approach of integrating climate objectives into other policy areas. As long as the climate objectives match with the beliefs of the policy-makers in charge of the policy proposal - be it due to individual serendipitous alignment or co-benefits of the respective policy area with climate mitigation - climate policy integration is more likely to succeed. If however climate mitigation does not or only partly match with the beliefs of the responsible policy-makers, it is more difficult for environmentally minded coalitions to influence the policymaking process as the policy entrepreneurial decision-making structures in European policymaking are likely to work against the climate policy integration objectives as the biofuels case illustrates.

Climate policy integration requires a higher degree of coordination from all actors involved than a focus on single-objective policies such as emissions trading. Yet the higher level of coordination also results in more communication among the key actors. Thus, we would have expected more 'arguing' and 'persuasion' in the policymaking process (Risse 2000; Risse and Kleine 2010) and more changes in policy design and policy detail beliefs. However, actors rarely were persuaded by better arguments and consensus was rarely reached – where there was agreement, this was due to shared pre-existing beliefs across coalitions. In the biofuels case, a controversy emerged as the policy detail beliefs became misaligned. Instead of arriving at a common position in the process of negotiating and discussing the findings, policy brokers had to resolve the situation with a compromise solution. This points towards conventional theories of the policymaking process that emphasise 'policy brokers' (Sabatier 1988; 1998), 'policy middlemen' (Heclo 1974) and 'policy entrepreneurs' (Kingdon 1995) as key mediators in bringing about a policy outcome and thus towards the dominance of alternative explanations for policy outcomes whereby learning plays a minor role. The following conclusion provides an overview of the findings, discusses the theoretical implications for European public policy as well as the lessons of policy analysis.

Chapter 9
Conclusion on learning in European policymaking

This conclusion chapter reflects on the analytical tools available to determine learning in European policymaking from a wider angle that goes beyond the case of climate policy integration. Following a summary of key findings that determine factual, experiential and constructivist learning in European policymaking, it examines the wider implications of the empirical and theoretical contributions for research on policy within the European institutions. This chapter thus zooms out of the climate policy integration frame to illustrate routes for further research on learning in public policy using the theoretical framework developed in this thesis.

9.1 Summary of key findings on learning in European policymaking

The research on learning in European policymaking makes three distinct contributions. The first contribution is to clarify what learning means – what types and categories of learning are we referring to when talking about 'learning'? The second contribution is a framework how we can identify different learning types. Finally, the empirical analyses of learning in European climate policy integration in the areas of agricultural, energy and transport policy illustrate that learning does occur in policymaking alongside alternative explanations for policy change. This points towards the question of when learning matters in achieving a policy outcome, i.e. is the policy different because learning occurred or did we arrive at a policy outcome despite learning: was

learning trivial for the outcome as it would have materialised anyway due to the dominance of alternative explanations? The fourth contribution is an answer to the research question under what conditions learning occurs and matters for the outcome.

9.1.1 What role does learning play in public policymaking?

Which type of learning on the individual and organisational level occurs depends on the influence of the socio-political landscape and the pre-existing beliefs of policy entrepreneurs. The key factors that determine which type of learning occurs in the policymaking context are the previous expertise and knowledge of a decision-maker, the culture of information exchange within the organisation, institutional capacity, objectives embedded in the institution and political interests. Experts involved in developing a policy proposal do reflect on information presented to them by external experts and stakeholders. In many cases they are however already familiar with the information. On the same token most experts involved in European climate policy integration hold deeper beliefs favouring environmental protection and increasing climate action, which did not change by being involved in either of the policies examined.

Yet it is important to include the temporal factor and ask whether these deeper beliefs pre-existed or whether they were formed in the 1970s or 2000s when environmental and energy challenges resulted in shifting perspectives in the socio-political landscape. Renewable energy emerged as energy security objective after the 1970's oil crises and was reframed in the late 1990s/ 2000s as core measure to mitigate climate change. Climate policy integration in the Common Agricultural Policy is a further development from greening the CAP through the MacSharry (1992) and Fischler (2002/ 2003) reforms to increase the legitimacy of the subsidies paid to farmers (Feindt 2010; Swinnen 2008a). Its justification was re-framed as 'public money for public goods', of which climate action and environmental protection were the most significant.

The empirical findings indicate that in both case studies some learning occurred, especially factual and experiential learning through reflection on new scientific evidence and involvement in policymaking. A few key policy entrepreneurs embedded

the greening aspects into the 'institutional machinery'. However, constructivist learning among individuals only occurred as a response to changes in the socio-political landscape over the long term, but less via being persuaded by policy entrepreneurs. Alternative explanations for the policy outcome remained dominant on the organisational level. This finding points predominantly to more 'standard' theories of public policy that do not specifically emphasise learning as the findings can also be explained with the Multiple Streams Framework (Ackrill, Kay, and Zahariadis 2013a; Kingdon 1995; Zahariadis 2007) or the Advocacy Coalition Framework. Both have been adapted and applied to EU case studies and results pointed towards their ability to explain policy outcomes (Ackrill, Kay, and Zahariadis 2013; Sabatier 1998; Weible, Sabatier, and McQueen 2009) and they emphasised the dominant alternative explanations of policy entrepreneurs (or policy brokers in the case of the biofuels policy), windows of opportunity and shifts in the wider socio-political landscape that provided an external driver for policy change and particularly pre-formed political interests, lobbying and bargaining in negotiations as means of realising and protecting the coalition's political interests.

Policy entrepreneurs - who learned beforehand - played a crucial role in the negotiation process for the success of the policy proposal as they had the potential to facilitate learning among other actors. However no evidence in support of that assumption could be identified. In both cases policy entrepreneurs were crucial for the success of the policy proposal, however they used 'conventional' negotiation tactics and strategies. The findings regarding changes in the socio-political landscape indicate that learning is a long-term process over several years or even decades, which was suggested by Sabatier (1988) and confirmed by Radaelli (2009), as repeating 'common sense' arguments had a major impact on policy change in both cases. One major finding on the organisational level is that learning can be confused with the technicalities of policymaking in the EU in general, but especially with the 'institutional machinery' of the European Commission (EC 24). It is also crucial to separate learning from bargaining in the negotiations that accompany policymaking in the EU and from lobbying by various stakeholders involved. Decision-makers can learn on the individual level by reflecting on new information and being involved in the process, which can even result in changed beliefs or values regarding the policy. However, this is fre-

quently not transferred on the organisational level due to political interests of member states and powerful vested interests.

In conclusion, learning does occur in policymaking. However, it is crucial to separate 'normal' learning, which can be reasonably expected from every individual involved in policymaking in the form of additional information and experience, from constructivist learning, which requires not only a reflection on the input and a resulting increase in knowledge or experience. It furthermore requires individuals to change their underlying beliefs. Only if individuals change their beliefs, we can talk about learning that goes beyond 'normal' learning. Previous studies widely failed to explicitly account for pre-existing beliefs and to establish a 'base line' from which knowledge and experience increased or beliefs changed. We can mistake learning easily if the time span, pre-existing knowledge, experience and beliefs are not benchmarked (see chapter 3). It is important to take alternative explanations for learning into account and to include those into the analysis. The following section will turn to the method to identify learning in policymaking, the prerequisite for analysing learning in a given policymaking context.

9.1.2 How can we identify learning in policymaking?

Identifying learning is strongly based of what is being regarded as learning. A review of different definitions of learning (see definitions provided by Argyris and Schön 1978; Kim 1993; May 1992; Sommerer 2011; Zito and Schout 2009) identified elements common to most learning conceptualisations. The following definition presented in chapter 2 consolidated the diverse understandings of learning and provided an overall conceptual basis for the analysis. Learning was defined in this thesis as

> *reflection* and judgment based on an input, which leads the individual and/ or organisation to select a different view on (1) how things happen, i.e. additional knowledge or (2) what course of action to take, i.e. the reflection on individual or collective experience or advise from others on such previous experiences. The judgement can lead to an individual or collective change in beliefs. Policy outcomes can either be a result of learning or of alternative explanations.

(Chapter 2)

The empirical analysis process traced the development of two best-case examples. These included the Renewable Energy Directive adopted in 2009 and the 2014-2020 Common Agricultural Policy proposal with its components on mainstreaming climate action and increasing greening aspects. Learning in these policies was process traced (George and Bennett 2005; Tansey 2007) predominantly with in-depth elite interviews of those policy-makers directly involved in the development, drafting and negotiation of the policies and supplemented with document analysis. This research was based on 72 interviews with 66 key decision-makers at the European Commission (DG/ Cabinet Agriculture and Rural Development, DG/ Cabinet Energy, DG Environment and DG Climate Action), in the European Parliament and the Council (member states) as well as non-governmental actors. For the case study on learning in the development of the EU Renewable Energy Directive several individuals have been involved in both case studies, thus the total of numbers of interviews was higher than the total number of interviewees (see chapter 4 and appendix 2). This research focused on interviewing the key actors, whose population was very limited. The scope of the sample included all individuals that the author could contact (some were retired and had left no contact addresses or deceased), and who did not decline the interview request. The interviews were semi-structured and lasted on average 60 minutes.

To identify learning, it needed to be determined whether communication between the individuals occurred, whether the individual received the information such as scientific studies and whether the individual reflected on the information, and as a consequence experienced an increase in knowledge, added a practical experience connected to a concrete policy action to his/her base of experiences, and/or changed underlying beliefs. This process-tracing approach has the advantage that it is well-established and accepted in the public policy and governance literature as most empirical studies on learning overall followed this process-tracing approach based on interviews (Dunlop 2010; Eising 2002; Farrell 2009; Koch and Lindenthal 2011; Radaelli 2009), what improves validity and reliability (Gibbert, Ruigrok, and Wicki 2008b; Yin 1994; 2009).

9.1.3 Under what conditions does learning occur?

Learning occurs in the complex interactions of the individual and organisational level, which are further influenced by wider developments and major shifts in the socio-political landscape. For learning to occur in the policymaking process, the policymaking conditions need to support reflection on input and a change in perspectives. This can be hindered by several factors such as defensive avoidance, bargaining tactics and power politics. It can also be hindered by an organisational culture that does not support reflection and changing perspectives or is not open to changes. Thus, the link between the individual and organisational level is very important for learning to be transferred into the policy outcome. If there is a disconnect between those two levels, individuals may well have learned, but the institution and ultimately the policy outcome do not reflect learning.

It is important to distinguish between pre-formed deeper beliefs and newly formed beliefs and to control for pre-existing beliefs, green or otherwise. Key actors in the Common Agricultural Policy and the Renewable Energy Directive case study maintained their beliefs and subsequently tried to align the policy outcome with their pre-existing beliefs. Therefore, the time frame of the analysis is important. Shifts in the socio-political landscape also illustrate the importance of *windows of opportunity*. These were further conditioned by outside factors such as the economic situation. Many interviewees emphasised that the window of opportunity for climate policy and climate policy integration closed with the economic and euro zone crisis as member states are pre-occupied with more immediate economic concerns. Nevertheless, key aspects such as the conditionality of 30 per cent of farm payments on compliance with greening measures and the dedication of 20 per cent of the European Union's 2014-2020 budget to co-benefits on climate measures were maintained and thus point to the influence of actors and path-dependencies of policymaking beyond those windows of opportunity. Whether learning is transferred into the policymaking process and ultimately to the policy outcome depends on the *political feasibility of actors' 'new' beliefs within the dominant coalition*. If these actors encounter a window of opportunity and use it to gather the necessary political support for their policy proposal, the learning is likely to be reflected not only in the policymaking process, but also in the policy

outcome. However, this also illustrates that constructivist learning should be free of any normative judgement regarding its desirability. It also illustrates that pre-held deeper beliefs can also have a strong result on the policy outcome. As a consequence, constructivist learning of individuals needs to be 'benchmarked' against the deeper beliefs of individuals and not against externally imposed objectives. Constructivist learning on the individual level can have an impact on the policy outcome and can be identified based on how well the policy outcome reflects the individual's and organisation's beliefs.

9.1.4 Conclusion on findings and contributions

The findings demonstrate that for learning to occur in the policymaking process and for learning to have an impact on the policy outcome, the crucial angle of analysis is to determine whether and when individual key policy-makers, who acted as policy entrepreneurs on the organisational level, changed their beliefs. Whether their individual learning is transferred into the policy outcome depends on how well these policy entrepreneurs manoeuvre the political machinery and how much political support they can build. Learning is rarely translated into a consensual, deliberative decision-making process that results in an uncontroversial policy outcome as hypothesised by deliberation theory (Risse 2000; Risse and Kleine 2010; Riddervold 2011). Learning on the organisational level is more likely to be instrumental in order to achieve a certain political goal that is aligned with the key actor's beliefs.

These findings on policy entrepreneurs, windows of opportunity, pre-formed beliefs and the socio-political landscape as driver for policy development point towards the compatibility of the theories of the policy process (see discussions in 3.1) and indicate that the policy learning literature widely ignored the key aspects of windows of opportunity opened by supportive driving forces in the socio-political landscape and the crucial role of policy entrepreneurs in achieving a policy outcome (exceptions are Braun 2009 and Nilsson 2005). In contrast, policy entrepreneurs, windows of opportunity and political interests have been analysed and confirmed by different authors for the EU and beyond as key explanations for policy outcomes

(Ackrill, Kay, and Zahariadis 2013a; Kingdon 1995; Zahariadis and Allen 1995). However, this side of the policymaking literature rarely examined the role of learning as central intervening variable. It furthermore hardly provides a clear distinction between beliefs as suggested by Sabatier (1988), who in turn focuses on policy-oriented learning as a form of protecting beliefs instead of changing them. In the advocacy coalition framework, learning has a minor role as political learning with aspects of lipservice, following orders and political power plays. In conclusion, this combination of learning and alternative explanations for policy outcomes in the policy process is a novel contribution to the learning literature and to the policymaking literature alike as it allows a fresh perspective on learning in the policymaking process and the role of individual policy-makers therein, while reconciling existing contributions.

9.2 Lessons of policy analysis

A number of policy implications emerge from the empirical findings. There is a danger that these findings on learning could be misinterpreted as no learning going on in European policymaking. In fact, much learning is happening in places where we might not expect it, but learning is also not always as relevant in arriving at a policy outcome as some of the literature may suggest. However, learning can speed up the policymaking process by reducing the number of incremental reform steps necessary to arrive at a policy outcome that does not immediately drive key actors to reform the policy and withdraw central outcomes. Especially the reliability of policy outcomes is a major concern to industry, business and the financial sector providing necessary investments in renewable energies as the likelihood of changing economic incentives and regulatory regimes means a high uncertainty and financial risk to them. Thus it would be desirable to arrive at a policy outcome that provides a certain stability with a low likelihood of major changes within a short time frame.

Especially the biofuels component of the RED introduced uncertainty for actors in the biofuels industry, who planned their investments and business operations

based on the expectation of a ten per cent target of renewable energies in transport, what includes first generation biofuels from food crops (Dunlop 2010; Sharman and Holmes 2010). The expectations generated from the 2009 RED make a subsequent reform towards discouraging first generation biofuels more difficult as the original directive created a considerable lobby of biofuel producers who have a vested interest in maintaining the current policy regime. A policy reform means a significant economic risk and potential loss to their investments, which were based on expectations of policy stability. Thus, learning can facilitate a policy outcome that reduces the likelihood of frequent, incremental reforms if a policy outcome that satisfies the majority of key actors is achieved in the first instance. In the case of the RED this could have been achieved by taking the emerging scientific evidence or at least the uncertainty regarding the mixed climate mitigation capabilities of first generation biofuels into account during the policymaking process via adhering to the precautionary principle.

The key issue in the RED was that sufficient scientific evidence on the mixed performance of biofuels only became available after the heads of states had decided on the target of ten per cent renewable energies in transport by 2020, what given technological limitations became a de facto ten per cent target of first generation biofuels (Sharman and Holmes 2010). A policy implication resulting from the biofuels case would be to create mechanisms that allow key actors to 'back up' when they cornered themselves in 'one way streets', i.e. to admit that they acted without having considered all information or that the situation changed following the formation of significant scientific doubts, so that in the light of the new scientific evidence or experience a change of course is acceptable. This would allow them to save face without negative consequences for their careers.

Two factors are decisive here: the institutional culture and arriving at a 'learning organisation' (Coopey 1995; Easterby-Smith and Lyles 2005), what should not be confused with organisational learning (Easterby-Smith 1997; Lyles 1985). The organisational culture is a key determinant as all actors and their actions are embedded in the organisational culture and judged against this norm. While in the Anglo-American culture failure of entrepreneurs at their first business and subsequent learning from failure is regarded as a 'badge of honour', Asian and to a large extent continental-European cultures regard admitting to an error as a loss of face with a subsequent loss of reputation and credibility. They strive not to repeat such 'mistakes' in

the future. This organisational culture is not 'set in stone', but as it is lived every day (Easterby-Smith and Lyles 2005), it can also be changed if key individuals begin to embrace a culture of reflection and learning from mistakes in a sense of 'lessons learned' or lesson drawing (Rose 1991; 1993). This could happen via de-briefings and non-judgemental reflections on the policymaking process instead of immediately moving on to the next project as suggested by a key actor in the biofuels case study.

This is where the 'learning organisation' could be a useful model. The case studies illustrated that individuals do engage in learning that is not 'trivial' as they reflect on their policymaking experience and come to change their willingness to do things differently in the future. This adds up to an 'institutional memory' of lessons learned from what the organisational culture widely regards as 'mistakes' (Easterby-Smith and Lyles 2005). If however the individuals involved move on to other positions after a few years, either into other directorate generals, in their member states, or when they retire, this institutional memory is lost. Currently information is rarely systematically collected and stored by individuals involved in policymaking so that it could easily be passed on to their successors. This could be achieved via debriefings that enter some kind of database with experiences of previous policymaking. This way it is likely that 'mistakes' that happened in the past are not repeated as the origin of the incident is recorded and it is no longer unclear to successors why and how the incident occurred. Currently, there is frequently not enough knowledge to reflect on how the situation was handled in the past and why actions led to the known result. Therefore, it would greatly facilitate learning in the European Commission as well as improve accountability if a feedback- and debriefing loop was introduced at the end of a policymaking initiative. This could record and encourage reflection on the experiences, how scientific input was handled, and who had decisive influence in shaping the outcome and the rationales behind this. At the same time, individuals in leadership positions need to actively support an atmosphere of collegiality and openness that is non-judgemental and focused on improving the policymaking process in the future instead of punishing individuals for their actions in the past.

Learning also has a normative aspect: the use of the institutional machinery to arrive at the biofuel component of the RED could be labelled 'bad' learning as it is opposed to the environmental coalition's beliefs, but whether this is actually 'bad' depends on value judgements of the actors affected by the policy. In any policymaking

process, there are winners such as in this case farmers, large agri-business and the bio-fuels industry, as well as losers such as environmentalists and small-scale/ organic farmers. Each group has a different cost-benefit calculation and value system to judge whether the policy is 'good' or 'bad', i.e. good or bad for them and their key interests.

The findings on policy entrepreneurs' power and 'lack' of learning point towards a seemingly democratic and accountability deficit in the European Commission. However, the results of this research should not be interpreted as generalisable illustration of a democratic deficit in the European Commission. It does have large powers based on its particular institutional role and knowledge base, but this type of power is also necessary to design policies that serve the public good with a longer time horizon than the next election or currently popular demands. 99.5 per cent of the cases in policymaking rather benefit from the medium-/long term time horizon and political neutrality of policy officers/ civil servants at the European Commission and their ability to act as policy entrepreneurs (EC 12). The biofuels case study however represents the 0.5 per cent where the ongoing disagreements between actor coalitions result in the overall conclusion that there is a democratic deficit in the EU due to its closed-door decision-making and the large power of policy entrepreneurs who were very persuasive to their hierarchy and held a negotiation advantage based on their expert knowledge. Thus it is necessary to have checks and balances that hinder civil servants from playing defining roles that may lead to unintended consequences and to allow for correctional mechanisms in the case of defensive avoidance.

9.3 Implications for public policy theory and further research

The meta-theoretical framework on learning developed and tested in this thesis is a contribution to the public policy literature and the policy learning literature as it clarifies the role of learning in the policymaking process. Overall facilitating conditions for learning are the existence of policy entrepreneurs who try to educate the other actors and convince them, windows of opportunities due to a favourable 'public mood'

and demand for a policy outcome based on policy-maker's perceptions of shifts in the socio-political landscape, shared deeper, policy design and policy detail beliefs across coalitions and an 'institutional machinery' that encourages individuals to reflect on their experiences and to critically evaluate knowledge-based input. The likelihood of a policy outcome increases if key individuals are convinced that a policy objective is 'the right thing to do', if they are in powerful positions – or capable of influencing powerful actors; if they actively engage in the policymaking process by strategically putting together coalitions with decision-making powers and if they possess the necessary knowledge to play a leadership role based on their expertise. However, constructivist learning neither always occurs, nor necessarily needs to occur.

If policy entrepreneurs were also to take on the role of 'teachers' and convince other actors of their policy objectives (Bomberg 2007) instead of using strategies and power politics to realise their political objectives (Kingdon 1995; Moravcsik 1993; Sabatier and Jenkins-Smith 1993), wider learning on the organisational level could occur as more actors change their beliefs instead of following orders from these policy entrepreneurs. While elements of these findings are discussed in the literature, this contribution specifically bridged the gap between these literatures by providing a synthesised meta-theoretical framework and two case study analyses that illustrate the importance of alternative explanations besides learning. Therefore, it allows a fresh perspective on a well-developed literature that has become so complex that several recent contributions are confusing labels and conceptualisations.

A key question for further research is the role of the European Commission as policy entrepreneur 'qua treaty'. In the Treaty of Lisbon (Craig 2010) and previous European treaties, the European Commission plays a central role due to its privilege of proposing legislation. Yet the empirical findings of this thesis and many other case studies of European policymaking indicate that the European Commission can be regarded as a political actor in its own right with its own political objectives (Braun 2009; Krause 2003; Laffan 1997). Furthermore, the European Commission can hardly be seen as one unitary actor, but rather as multiple actors in the different Directorate Generals and Cabinets of the European Commissioners (also indicated by Koch and Lindenthal 2011) where bureaucrats find opportunity structures to take on the roles of individual policy entrepreneurs. In combination with the finding that the learning of policy-makers in the EU and in the US is fairly similar (Montpetit 2009), the question

emerges to what extent learning in the European Commission and between the European institutions remains a 'special', 'unique' case and whether there are not wider lessons for intergovernmental institutions or national administrations. In this sense, the especially powerful role of the European Commission can be regarded as feature of the EU's particular organisational culture, which also includes its constitutional foundations. To answer the emerging question of *to what extent* the organisational culture matters and not only *whether* it matters or not as in this thesis, comparative case studies between the EU and non-EU states would be useful as would be studies across multiple levels of governance from the local to the global level. These were not attempted in this PhD thesis due to practical time and budget limitations as well as the higher number of actors involved who would need to be controlled for in the process tracing. For the sake of parsimony, it was more feasible to take a nested case study approach that allowed comparisons across energy, transport and agriculture policy within climate policy integration for a first test of the meta-theoretical framework.

The other question that remains is whether the findings are specific to the area of climate policy integration. First of all, this is a fairly wide area as it theoretically includes all policy fields that are not primarily targeted at reducing greenhouse gas emissions but whose activities contribute to climate change or will be affected by its consequences. In a narrower conceptualisation comparative studies of different policy areas within the EU would also be helpful to gain a better understanding of the specificity of these findings to the area of climate policy integration. If seen as inherent learning process, learning in other policy areas should be lower. The conflict in the biofuels case study however suggests that climate policy integration is a more difficult terrain than single-purpose policies due to the competing competencies and possibly conflicting policy objectives of short-term economic growth and long-term sustainability, making it a field of crucial importance to address climate change and strengthen long-term sustainability. However, it also requires key actors that are willing to 'teach' the other actors and to invest their political capital:

> We did extremely well. But it was the high point. I think 2011 was an extremely good year for mainstreaming in the Commission. But I also used a lot of political capital getting it. And I am now the most unpopular guy in Brussels. (…) Because I am interfering with other people's portfolios, telling them how to do their job. People don't like that. So it's difficult. But I can survive.

(European Commission 2012)

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Appendix 1: Codebook for data analysis

Key concepts and aspects of learning					
Code	*Definition*	*Inclusion criteria*	*Exclusion criteria*	*Examples*	*Corresponds to learning type*
Receive information	Be provided with an input in terms of additional information, awareness of this specific knowledge, received in written or spoken form	Reference to being provided with policy relevant information	Not be provided with information, relying on own knowledge base	'we were given studies by stakeholders'; 'someone/ experts pointed towards evidence for …'	Prerequisite for any learning
Reflection	Think about the input, actively engage with input and critically examine its relevance/ value	Engage with information and think about it	Only receive information without further engaging with it/ thinking about it	'I thought about it', 'it came to my attention', 'I looked into the issue'	Prerequisite for any learning
Change	Difference in amount of knowledge, experience or altered believes/ values between time t_1 and time t_2	Any increase or decrease in knowledge/ experience or belief different from the status quo at t_1	Same as at previous time t_1	'I worked on the issue over 10 years', 'We received new studies proving the contrary, that changed our perspective'	Prerequisite for any learning
Individual level	One person or small group of people working in a team within one organisational unit	Interviewee; Immediate colleagues of the interviewee s/he worked closely together with	Overall organisational objective, communication that involves a large number of people across different organisations with different objectives; wider society involving the media/ public opinion	'This new data really changed my opinion on the climate performance of biofuels', 'Me and my colleagues in Unit A.2/ in DG CLIMA…'	Any
Organisational level	Policymaking that involves different Directorate Generals of the European Commission, or policymaking between the EC and the Parliament/ Council	Overall organisational objective, communication that involves a large number of people across different organisations with different objectives	Interviewee; Immediate colleagues of the interviewee s/he worked closely together with; wider society involving the media/ public opinion	'The Commission pushes for a xyz target'; ' There was a fight between DG Energy and DG Environment on the model used for biofuel life-cycle analysis'	Any

Socio-political landscape	Stakeholder in wider society outside the immediate policymaking arena such as media, voters, politicians in local/ state/ national parliaments, NGOs, overall civil society and ordinary citizens, policy-maker's perception of the public mood/ demands	Policy-maker's proxies to determine preferences of wider society involving the media/ public opinion, frequently over longer time span (e.g. opinion polls, submissions to public consultations)	Interviewee; Immediate colleagues of the interviewee s/he worked closely together with; Overall organisational objective, communication that involves a large number of people across different organisations with different objectives	'Everybody was moving in the same direction', 'the public support for renewable energies was overwhelming', 'people came to realise the importance of acting on climate change', 'there is an overall demand in society that public money helps provide public goods'	Any
Factual learning	Reflection on new information and subsequent change in knowledge compared to status quo	References to knowledge, information, studies, evidence etc and that actors reflected upon the input and remember it	Increase in experience, no reflection on and change in knowledge on issue, also due to already very high level of individual expertise	'we incorporated the emerging evidence on the uneven GHG performance of biofuels into our policy proposal'	/
Experiential learning	Reflection on experience related to policymaking and subsequent increase in experience (usually working experience)	References to working on a policy (proposal) over a certain time span, reflection on experience with conclusion to (not) modify behaviour in future	References to knowledge/ facts/ studies or changes in underlying beliefs	'through working on the RED I had a crashcourse on renewable energies', 'by contributing to the work of the agricultural committee in the Parliament I gained much experience', 'the Parliament is involved in co-decision-making on the CAP for the first time and gaining a great deal in experience'	/
Constructivist learning	Changes in underlying beliefs, values, how people see an issue/ regard it as important, prompted by reflection on an increase in knowledge or working experience on the issue	References to changed opinions, how people saw the issue, higher regard for the issue, shifts in value or belief system	Person/ organisation already held belief that acting upon the issue is important before being involved with specific policy proposal	'Al Gore's movie put the problem of climate change in the public's mind, people came to understand that it is important to act on climate change', 'I refined my belief that all biofuels are good'	/

	Learning (reflection on input and subsequent change)				
Code	Definition	Inclusion criteria	Exclusion criteria	Examples	Corresponds to learning type
Knowledge	Input to policymaking by external sources via information provision; *frequently meant by interviewees when they use the word 'learning'*	References to information; component of factual learning	References to activities or time spent working on a specific issue or to how they saw/ interpreted the issue	'scientific studies', 'expertise', 'research findings', 'evidence'	Factual learning
Experience	Active engagement with policy issue area by working on it	References to activities or time spent working on a specific issue; component of experiential learning	References to information or to how they saw/ interpreted the issue based on their values/ attitudes	'working experience', 'through working on the RED I had a crash course on renewable energies'	Experiential learning
Underlying beliefs	Point of view held by individual, institution or society that also reflects values and frame of mind regarding an issue; normative judgments regarding a potentially contested issue	References to how people/ organisation/ society saw an issue also through their lens of previous attitudes and values, component of constructivist and deep-level governance learning	References to activities or time spent working on a specific issue or to specific information	'I really believe that renewable energies are a good thing/ the right solution to pursue', 'It is important to consider the carbon footprint of an energy source' 'We must also consider public goods such as the environment'	Constructivist learning

<table>
<tr><td colspan="6" align="center">**Alternative explanation**
(reflection on input, but no change)</td></tr>
<tr>
<td>**Code**</td>
<td>**Definition**</td>
<td>**Inclusion criteria**</td>
<td>**Exclusion criteria**</td>
<td>**Examples**</td>
<td>**Corresponds to learning type**</td>
</tr>
<tr>
<td>**Political interests**</td>
<td>Normative point of view regarding an issue based on preferences of interest groups (political parties, business, powerful individuals)</td>
<td>Reference to politics, political level, politicians, organisational objectives that are influenced by special interest groups</td>
<td>References to scientific evidence, public good/ res publica, but also pure bargaining as regular part of the negotiation/ decision-making process</td>
<td>'I defend my organisation's/ superior's political interests', 'they made a deal with X to get their agreement on another issue', 'politicians pushed through their parties interests'</td>
<td>Alternative explanation</td>
</tr>
<tr>
<td>**Following orders**</td>
<td>Receiving an order from a superior/ organisation with legal power to give orders, carrying out this order regardless of personal/ organisational objectives</td>
<td>Reference to demands from Parliament/ European Council, Commissioners, politicians in member states that were carried out/ policies developed in response to that</td>
<td>Reference to autonomous decisions taken within the individual's unit, policy entrepreneurial activities, persuading superiors, taking ownership/ leadership in policy development</td>
<td>'the European Council tasked us with the development of a directive', 'The Commissioner asked our DG to formulate a proposal'</td>
<td>Alternative explanation</td>
</tr>
<tr>
<td>**Institutional process of policymaking**</td>
<td>- Comitology
- Interservice consultations
- Informal communication</td>
<td>Description of formal and informal policymaking procedures, information exchange in regular meetings, institutional culture of information exchange, gathering information and developing proposals</td>
<td>References to exceptions from procedure or strong individual input into the decision-making process</td>
<td>'This is how policy is made in the EU', 'This process is being repeated every x years' 'This is how the policymaking process works'</td>
<td>Alternative explanation</td>
</tr>
<tr>
<td>**Negotiation/ bargaining**</td>
<td>Policy-makers represent different positions on an issue trying to come to an agreement that is as close to their negotiation optimum as possible, but at least within their negotiation mandate</td>
<td>References to representing the interests of an organisation in a negotiation setting that match not necessarily with the interviewee's/ negotiator's personal point of view</td>
<td>References to negotiation settings, exchange of positions carried out between the European Commission and the Parliament/ Council, among member states and MEPs</td>
<td>'we have a negotiation mandate that we have to represent', 'It was clear that the member states would never agree to this' 'we made a deal to get them to agree to our proposal'</td>
<td>Alternative explanation</td>
</tr>
</table>

Lobbying	Following the proposals made by/ input provided by non-governmental interest groups	References to input provided by business/ NGOs that was taken on by decision-makers; amendments provided by interest groups to MEPs	References to the development of a policy based on scientific evidence or previous policies, policy was developed independently from interest group involvement	'We [special interest group] provide our input to the decision-makers at meetings and conferences', 'MEPs take on our proposals, modify them and introduce them as amendments'	Alternative explanation

Non-Learning
(no reflection on input, no change)

Code	Definition	Inclusion criteria	Exclusion criteria	Examples	Corresponds to learning type
Defensive avoidance	Not wanting to deal with the issue, ignoring evidence, avoid loss of face by acknowledging mistakes	Reference to mistakes from a normative point of view but carrying on with business as usual	Remarks that the key actors reflected on the issue but decided not to pursue it for other reasons	'they just ignore all the evidence, bury it, they don't want to reflect on it as they would realise that they were wrong'	Non-Learning
Group think	Group of actors lives in their own 'bubble' and acts according to their view of the world, avoid to acknowledge/ ignore mismatch between their view and external factors (e.g. laws, social norms)	References to being detached from 'real' people, living in the 'Brussels bubble' without knowing the situation in the member states	Remarks that demonstrate awareness of other stakeholders' points of view and the situation of the people affected by the policy	'I don't think policy-makers in Brussels know how disastrous their policy will be for farmers', 'Everyone in my network thought this was a great idea to pursue, but it turned out to have negative consequences'	Non-Learning
External constraints	Lack of time due to high work load/ overload	References to material or temporal constraints	Remarks indicating that lack of resources/ time/ manpower is not a hindering factor	'I would like to read all studies and think about them, but as MEP I don't have the time as my day only has 24h'	Non-Learning

		Conditioning factors with positive/ negative effect on learning types			
Code	**Definition**	**Inclusion criteria**	**Exclusion criteria**	**Examples**	**Corresponds to learning type**
Academic background	Education of the individual	References to education or academic training in a certain discipline	References to working experience	'I have a PhD in agricultural economics' 'I am a mechanical engineer by training'	Any
Working experience on topic	Individual has worked on the policy area for a certain time	References to duration of specific work experience in the policy field	References to education and training	'I worked on agricultural policy for 15 years'	Any
Leadership style of superior	Approach of individual of higher rank than the interviewee to managing and steering the team	References to way the superior communicates with the team, use of adjectives to describe leadership style	References to education or background of superior	'My head of unit is very supportive, he encourages us to share our knowledge on the issue' 'My boss creates a competitive atmosphere'	Any
Network to other actors	Regular contact with other relevant actors and exchange about key issues of concern	References to regular meetings/ communication, knowing each other, informal sharing of information/ experience	References to isolation from other actors engaged in policymaking, independent work	'We have regular meetings with colleagues from other DGs to coordinate', 'We negotiate regularly and I know my counterpart well'	Any
Policy entrepreneur	Individual that is pro-active, takes on relevant position, tries to convince other actors of new evidence	Reference to individual that is personally convinced that policy is the right thing to do and promotes perspective actively	Reference to institutional machinery or no special role of individuals in the development of policy	'She really believes in what she does, 'she is very persuasive and pushes the proposal through the committee'	Any
Institutional capacity	Ability of institution to adequately address policy problem, not prohibitively constrained by time or resources (personnel, monetary, goods)	References to resources such as personnel, budget, time to develop policies/ review them and form a position	References to individual capacities, e.g. in terms of knowledge or experience	'The budget is very limited, thus we cannot pay for external advisors, studies or consultants'	Any

Appendix 2: List of interviews

Interview number	Code of interviewee
	EC = European Commission **EP = European Parliament** **NMS = Northern European Member State** **SMS = Southern European Member State** **ENGO = Environmental NGO** **Industry = Industry representative (agricultural lobby/ energy industry)**
1	EC 1
2	EC 2
3	EC 3
4	EC 4
5	EC 5
6	EC 6
7	EC 7
8	EC 8
9	EC 9
10	EC 10
11	EC 11
12	EC 12
13	EC 13
14	EC 14
15	EC 15
16	EC 16
17	EC 17
18	EC 18
19	EC 19
20	EC 20
21	EC 21
22	EC 22
23	EC 23
24	EC 24
25	EC 25
26	EC 26
27	EC 27
28	EC 28
29	EP 1
30	EP 2
31	EP 3
32	EP 4
33	EP 5

34	EP 6
35	EP 7
36	EP 8
37	EP 9
38	EP 10
39	NMS 1
40	SMS 1
41	SMS 2
42	NMS 2
43	NMS 3
44	NMS 4
45	NMS 5
46	SMS 3
47	NMS 4
48	SMS 4
49	SMS 5
50	NMS 6
51	NMS 7
52	NMS 8
53	NMS 9
54	NMS 10
55	NMS 11
56	ENGO 1
57	ENGO 2
58	ENGO 3
59	ENGO 4
60	ENGO 5
61	ENGO 6
62	ENGO 7
63	ENGO 8
64	ENGO 9
65	ENGO 10
66	Industry 1
67	Industry 2
68	Industry 3
69	Industry 4
70	Industry 5
71	Industry 6
72	Industry 7